FIFTY YEARS OF MEDICINE AND SURGERY

An Autobiographical Sketch

DR. FRANKLIN H. MARTIN



THIS VOLUME HAS BEEN PREPARED BY THE AUTHOR AS A GIFT EDITION AND IS SENT WITH HIS COMPLIMENTS TO THE FELLOWS OF THE AMERICAN COLLEGE OF SURGEONS IN APPRECIATION OF THE IDEALISM AND HELP WHICH HAVE MADE THE COLLEGE A FORCE IN THE ADVANCEMENT OF THE SCIENCE OF SURGERY.

Franklin H Martin

October 1, 1934

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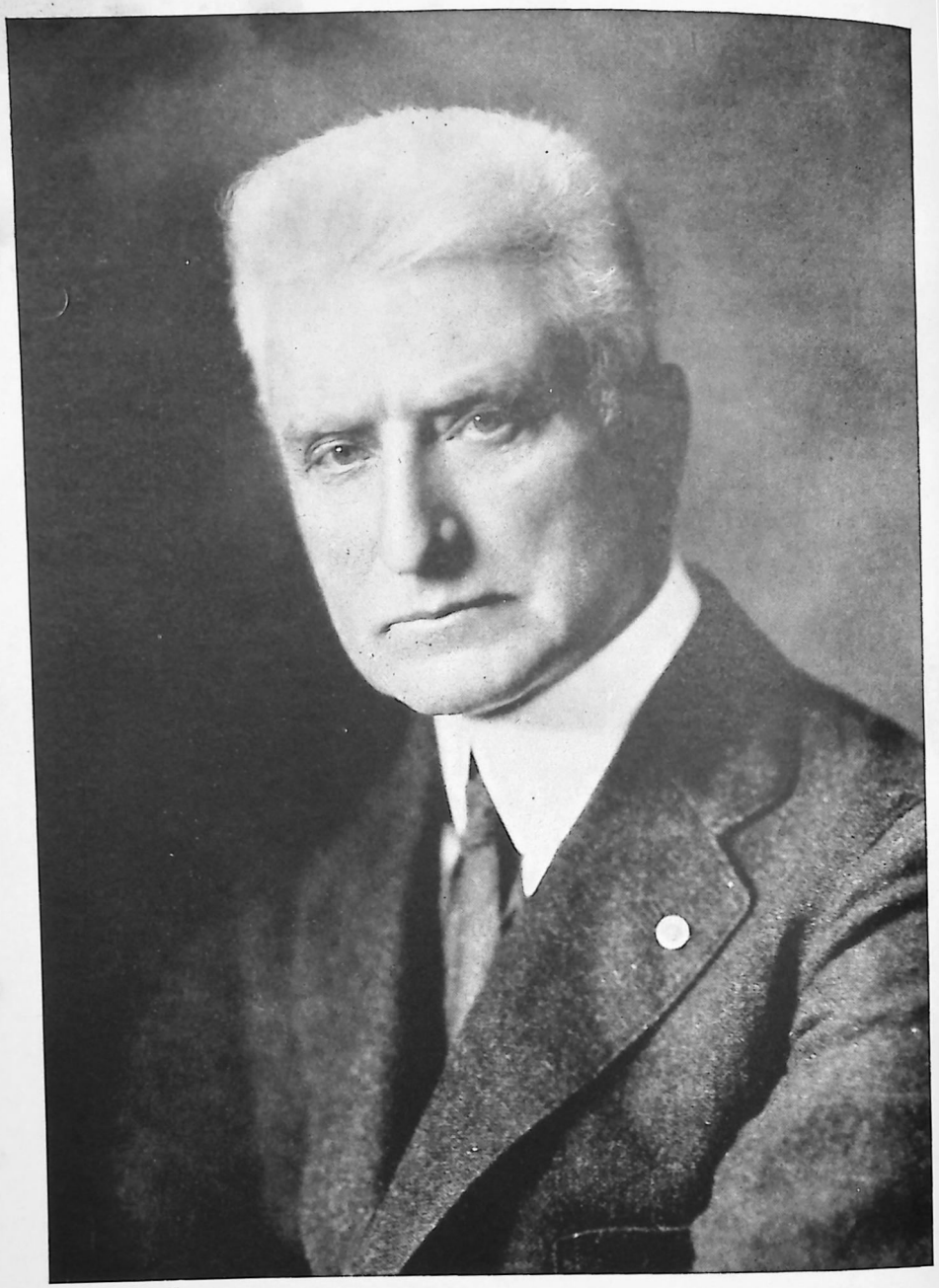

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FIFTY YEARS OF MEDICINE AND SURGERY

An Autobiographical Sketch

DR. FRANKLIN H. MARTIN

With special reference to the organization and administration of *Surgery, Gynecology and Obstetrics*, the Clinical Congress, the American College of Surgeons, the Gorgas Memorial Institute, and the participation of the medical profession in the World War. Based on personal diary, professional writings, and digest of professional activities during fifty years.

Prepared in narrative form for the lay public and the medical profession

TWO FOREWORDS:

WILLIAM J. MAYO, M.D., *Rochester, Minnesota*

GEORGE W. CRILE, M.D., *Cleveland, Ohio*

WITH ILLUSTRATIONS

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MCMXXXIV

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To Josephine and
To Isabelle

Preface

THIS book, a volume of personal reminiscences, is not a medical treatise; it is written for my friends among the profession and the general public. Having retired after forty years of practice in gynecology and surgery, I consider it a prerogative to discuss freely with the lay reader intimate problems which are met from day to day by every practitioner of scientific medicine—the family doctor, the surgeon, the specialist.

The professional pages of this volume dwell briefly upon co-operation with progressive men during the years of transition in medical practice —1880 to 1920. Within those four decades the "art" of medicine was superseded by the "science and art" of medicine; preventive medicine was introduced and developed; scientific discoveries, and the utilization of organized methods to regulate the environment of medicine, its social aspects, educational requirements, and institutional aids practically revolutionized the teaching and the practice of medicine. In a word, a progressive profession was being rounded out to its maximum of usefulness.

In recording the process of evolution, there is an account of organizations with which I have been and am especially concerned—surgical journalism, through the medium of *Surgery, Gynecology and Obstetrics;* the Clinical Congress of Surgeons of North America; the American College of Surgeons; and the Gorgas Memorial Institute of Tropical and Preventive Medicine. These organizations have suggested standards for surgery and for the betterment of hospitals, and they have promoted a partnership between the general public and the scientific profession which has resulted in wholesome and mutual understanding and co-operation.

FRANKLIN H. MARTIN, M.D.

An Acknowledgment

In these days of empire building, of professional combinations, of group literature, and of mass production, the old-time individualist-leader, if he courts success, is of necessity obliged to delegate details of his visions and plans to competent aids. Such important talent is deserving of recognition. But nowhere except in the motion-picture industry is acknowledgment given to associates who perfect the many details of projects and of writings.

There are five women who have been my aids during a period extending well beyond a quarter of a century; and I wish to acknowledge their genius, industry, and loyalty:

Mrs. Margaret Bowen Shepard, who as my private secretary aided in the organization and administration of the Journal, *Surgery, Gynecology and Obstetrics*.

Mrs. Florence O'Brien Donnelly, my private secretary for several years, office director of the Medical Section of the Council of National Defense, and the first office director of the Gorgas Memorial Institute.

Mrs. Marion T. Farrow, my private secretary for several years, and executive secretary of the American College of Surgeons from its beginning in 1913 to the present time.

Miss Gladys Newman, at present office manager of the Gorgas Memorial Institute of Tropical and Preventive Medicine, in Washington, D. C.

Miss Eleanor Grimm, who began service as a young girl, served during the war in the Medical Section of the Council of National Defense, my private secretary from that date to the present time, in charge of details of the yearly scientific programs of the American College of Surgeons, and the responsible aid, with her competent assistants, in preparing and editing this publication. Especially do I wish to acknowledge her untiring energy, administrative judgment, loyalty, industry, and accomplishments.

Franklin H. Martin, M.D.

Two Forewords

I

BIOGRAPHY by one of the most distinguished of American
n event of national importance.
lin H. Martin has practiced medicine and surgery during
which medical science has made greater strides than in all
istory. In the nineties, when on a visit to Chicago for the
dding to my store of knowledge, someone told me of a
ne name of Martin who was doing very distinguished work
and gynecological surgery at the Woman's Hospital. I
ell the morning that I first had the privilege of seeing Dr.
rm some most delicate operations with skill and precision.
impressed, and from that time I was an attendant at his
ver the opportunity arose, and I have followed his work
e years since.
n possesses certain impressive qualities, perhaps most con-
urage, which with knowledge and character laid the
r the respect and admiration held for him by his confrères.
hen the American College of Surgeons was launched under
he Clinical Congress of Surgeons by Dr. Martin, he gave
time and energy to develop this great organization which
ized sound surgical practice in America.
existed in America from the middle of the last century
al societies of limited membership, such as the American
ciation, the American Gynecological Society, and others
l what one might call a surgical aristocracy. Dr. Martin,
ision, wished to develop an association which would have
e the better care of the American people as a whole who
l surgical service. Knowledge alone was not sufficient.
those who were to become Fellows in the College, charac-
ty of purpose joined with adequate surgical training and

experience. To protect the interests of the people and the standards of the College, he established the requirement that a candidate for Fellowship must have served eight years after graduation from medical school, in hospital interneship and actual practice, before admission to the College. As a result, the roster of the American College of Surgeons carries to the people of the country the names of men to whom they may safely go for surgical treatment.

As part of the development of this great concept for the benefit of the people, Dr. Martin established a new standard of excellence in hospital service, so that today the hospitals which are recognized by the American College of Surgeons are the best in the country. I need hardly call attention to the part that *Surgery, Gynecology and Obstetrics*, the greatest surgical journal in the world, of which Dr. Martin was the founder and of which he is still the editor, has played in the perfection of this vast plan that has made Dr. Franklin H. Martin one of the greatest of America's benefactors.

It is therefore a rare privilege to follow in this autobiography the events of surgical progress in the last fifty years, the growth of a master surgeon, and of great importance, the work of the men who composed the Council of National Defense and the Advisory Commission during the World War, their personality, and the effect their joint effort had in advancing the interests of our country, so pitifully unprepared for the trials and tribulations it underwent in the World War.

WILLIAM J. MAYO, M.D.

June 7, 1933.

II

WISCONSIN has sent to Chicago some of the illustrious figures in the Medical History of this period—Senn, Murphy, Ochsner, Billings, Cary, Church—and now we are commenting on perhaps the last medical celebrity to emerge from the Wisconsin era of the covered wagon. The story of this red-headed, befreckled, Wisconsin boy, like that of "David Copperfield," illustrates well the adage that "the boy is father to the man." This son of a covered wagon pioneer early became acquainted with life in the raw; he must have been uncertain sometimes whether he would have food and clothing and shelter; he fought, and played, and sang, and loved; he tested the life of the farmer's chore boy; he made bricks; he was an amateur carpenter; he taught school. By nature sensitive, shy, resourceful, tenacious, with a vivid imagination, with faith and courage, this product of the covered wagon found his way out of the heat and barbs of the harvest field as the result of the lure of medicine, which, too, was in the covered wagon stage. As a student, young Martin won distinction which placed his ambitious foot on the first round of the ladder.

All through his life, and despite every disguise, Franklin Martin has been shy, fearless, imaginative, idealistic and a dreamer. Long will he be known among the great dreamers in medicine. He dreamed a dream, and the greatest surgical journal in the world was born; he dreamed again and the Clinical Congress of Surgeons of North America appeared; he dreamed yet again and the American College of Surgeons came into being.

Franklin Martin has contributed to every side of medicine—as a teacher, as an investigator, as a contributor to medical literature, as a successful surgeon. He was not only the founder of *Surgery, Gynecology and Obstetrics*, but for twenty-six years he directed its destiny. Significantly, the same group that originally made up the personnel of the Editorial Board and business personnel of the Journal are still associated with him, with the exception of those called by death. The Clinical Congress of Surgeons of North America, which was founded by

Dr. Martin, in turn, was metamorphosed into the American College of Surgeons.

The American College of Surgeons has had a far-reaching influence on hospital standards, on ethical standards, on the standards of surgical practice, and on medical education. It was the conception of Franklin Martin that the College of Surgeons should be an active organization with comprehensive field activities covering the United States and Canada so completely that every hospital, whether in the metropolis or in remote places, should be served; that it should establish a standard of staff conferences, of clinical records, of laboratory equipment and service; and even of hospital construction. On the side of education and clinical research, Dr. Martin organized departments of the College for the study of the methods of treatment of cancer, and of the treatment of fractures; for the study of accidents and injuries, of which there are nearly one million a year; and a library which serves any of the 11,290 Fellows of the College at the cost of clerical service. It was Franklin Martin who conceived and carried through the establishment of the Murphy Memorial; and who now has planned permanent exhibits of surgical methods, material, etc. The machinery of these vast activities which spread all over the continent, and are carried on with vigor and judgment for the benefit of the public, is largely due to Franklin Martin. The American College of Surgeons now has assets of more than two million dollars; and a working staff of thirty-six, the outstanding characteristic of which—as in the case of the staff of the Journal—is its long-time loyalty to its Chief. Those who know Franklin Martin best, trust him most.

Franklin Martin did not fight and work and dream alone, as Isabelle Hollister Martin has advised, moderated, and conciliated this colorful personality.

Franklin Martin is a link between the covered wagon of Wisconsin and modern life; between the covered wagon of medicine and modern medical science. He helped, as almost no other contemporary has done, to metamorphose the covered wagon era through the exercise of his boyish contradictions of character—shyness and fearlessness, idealism and outstanding practical common sense. He has always been a constructive dreamer.

June 17, 1933. GEORGE W. CRILE, M.D.

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FIFTY YEARS OF MEDICINE AND SURGERY

An Autobiographical Sketch

DR. FRANKLIN H. MARTIN

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An historical record of the organization and administration of *Surgery, Gynecology and Obstetrics*, the Clinical Congress, the American College of Surgeons, and the Gorgas Memorial Institute, of which we have had the pleasure to be a part.

George E. Brewer	J. M. T. Finney	J. Bentley Squier
Herbert A. Bruce	William D. Haggard	Frederic A. Besley
W. W. Chipman	Edward Martin	William R. Cubbins
Frederic J. Cotton	Rudolph Matas	Allen B. Kanavel
George W. Crile	Charles H. Mayo	Albert D. Ballou
	Robert E. McKechnie	

FIFTY YEARS OF MEDICINE AND SURGERY

An Autobiographical Sketch

A RECORD of personal reminiscences, this volume is not a medical treatise; it is written for the general public as well as the medical profession. It has been compiled at the urging of many officials and Fellows of the American College of Surgeons and subscribers to *Surgery, Gynecology and Obstetrics* who have read "The Joy of Living" and who have expressed the wish that the story of these organizations might be placed in the hands of every Fellow of the College and every subscriber to the Journal.

In the preparation of "Fifty Years of Medicine and Surgery" I have not included certain chapters which appeared in the first and second editions of "The Joy of Living; an Autobiography," published by Doubleday, Doran and Company. These chapters were entitled:

I. 1847–1858. Forebears
II. 1859–1862. Early Memories
III. 1863–1864. My Mother
IV. 1865. The Civil War Is Over
V. 1866. A Happy Childhood
VI. 1867–1871. Moulding and Growing
VII. 1872–1873. Minneapolis. Leaving Home
VIII. 1874–1875. Return to Wisconsin
IX. 1875. New Experiences
X. 1875–1876. As Scholar and Teacher

In these chapters I attempted to portray the life of a Wisconsin boy who devoted four months of each year to primitive schooling, who worked at manual tasks of farming and brickmaking from the age of ten years to early manhood, and who taught in rural schools. Through

excursion into that form of literary enterprise it was my purpose to permit others to share the joyous memory of precious days, of companionship with honest men engaged in physical labor, and of competitive tasks which Nature impelled in the out-of-doors of a choice region of Wisconsin, my birthplace.

From this environment I launched into the study of medicine, as the subsequent chapters relate.

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1876–1877. YES, I WILL BE A DOCTOR

I. An Apparition. II. My First Professional Hero—My Preceptor. III. A Staunch Friend. IV. National Politics. V. Plans Threatened by Financial Stringency. VI. The Great Adventure. VII. My First Meeting with Nicholas Senn. VIII. Arrival in Chicago. IX. Enrollment in Chicago Medical College. X. We "Set Up" Our Quarters. XI. Prof. Edmund Andrews—Amputation of a Leg.

I

On a blistering day in early August something happened, and the whole course of my future life was changed.

The oats had been cut by the reaper the day before and lay in loose bundles on a side hill which sloped toward the west. Working alone, I crossed and recrossed the field, binding these oats. The straw was dry and did not impart the coolness peculiar to freshly cut grain. The heat was oppressive, and fairly scorched my face as I leaned over these parched masses of straw. At the end of a row I stopped momentarily in the shade of a thorn bush which protected the black jug of drinking water. Not a breath of air was stirring; it was almost suffocating. There was no comfort except in the movement of the body. At three o'clock it became unbearable.

Bordering the field was the country road. At that particular location there were a number of large, hardwood maples whose deep, dark shade protected the wagon track. As I straightened up to wipe the flowing perspiration from my eyes with the sleeve of my shirt, I viewed a scene from paradise.

Driving leisurely along the road in the shade of the maples was Dr. Daniel McLaren Miller, then the famous family physician of Oconomowoc. He was dressed in white linen, his buggy had a white canvas top and open sides, and the horse was protected by a white fly net that

extended over its whole body, even to its ears. Before my eyes was a picture that brought joy to my soul and envy to my mind.

Instantaneously I dropped my rake and gazed until the apparition leisurely passed out of sight around the bend in the road. "Yes, I will be a doctor. Why haven't I thought of it before?"

My work became automatic, for my mind was a maëlstrom of plans and methods. The heat was no longer troublesome and by the call to supper my course of action had been fully determined upon.

This favorite five-o'clock meal was most popular with all farmers. There was always the long table with its white cloth, and distributed on its surface cold meats, hot tea biscuits, honey in the comb, luscious cakes, and homemade preserves, coffee, tea, and milk. I asked Mr. Russell if I might be excused as I had an engagement, a very important one, in Oconomowoc. I declined the use of a horse because I wanted to be alone, and anyway the horses were overworked. I wasted no time, but fairly ran that hot evening to the beautiful Oconomowoc, six miles away. I went to the post office, bought paper and envelopes, and proceeded to write a letter to Aunt Mary, Watertown, in which I told her of my decision to become a doctor; that I had already planned to come to Watertown for the winter and to go into Dr. William C. Spalding's office if he would accept me as a student; that I wanted to live at my grandfather's house; that I would do all the chores and take care of everything for my board. I wanted her to see Dr. Spalding immediately, ask him if he would become my preceptor, perfect the arrangement, and write to me the next day so that I might receive an answer "day after tomorrow night" as I would be at the post office at that time. The letter was of voluminous proportions, and I am sure it contained signs of enthusiasm that showed symptoms of impatience to get things settled and going. It never occurred to me that there could be any hitch, or that my time specifications would be rejected.

I was exultant, and hurried back to the Russell farm to be ready for work the following day. I had made my decision—I was to be a doctor. The fact was as thoroughly established in my mind then as it was ten years afterward. Perhaps my calling had been predestined, and unconsciously I had been preparing for my life's work! But back in the depths of my mind I knew that that blistering August day, the vision of comfort in the shade of the maples, and the determination that

eventually I would escape the drudgery of manual labor, were the factors that led so suddenly to the important decision. There was only one answer to the question raised by that dramatic scene: "Why not?" After prompt but careful consideration, the conclusion was reached: "There is no reason against a positive. It's settled." Perhaps the preliminary plans must be changed, but the decision was definite.

On Friday evening I again hiked the six miles to the post office. There was no possibility that Aunt Mary would fail me. The letter was handed out, and it was a long one. First came the answers to the important points I had raised: Dr. Spalding would probably take me on as a student, if I would tend the fires and care for his office in the winter; but he wished to talk to me first, and this, Aunt Mary volunteered, could be easily arranged; and of course Grandpa, who was getting rather old, was delighted that I would be there to do the chores, build the fires, and milk the cows.

The letter continued with many paragraphs of advice. Had I considered the financial cost? The long years of study? The hard life that would keep me up at night? The exposure to smallpox and other horrible diseases? And so forth and so forth. All superfluous of course. Nothing could turn me from my decision. Hadn't I been destined to become a doctor? However, though Aunt Mary, our great monitor, retailed her admonitions, between the lines I read encouragement and suppressed pride at my plans and prompt action.

So it was settled. As soon as I could, I poured it all out to my beautiful mother and to my wide-eyed sister, Nettie, who, of course, approved; my stepfather, Elon Munger, the carpenter, listened attentively, and though he was not given to expressions of enthusiastic approbation, I am sure he felt that my keenness might be dampened before I reached my far-off goal; but he was the last one in the world to discourage a worthy undertaking.

I was to begin my studies the first of October. During the two months which intervened I went back to my old task of brickmaking. This congenial work in the open air became automatic, so that I had much time to live to the full in imagination, and to daydream and plan to my heart's content. As the sun made its appearance over the resort village between the two islands to the east I started at my work; there I remained through enjoyment of high noon and the brilliant

sunsets; and after supper, out under the starlight and the secretive moonlight of these crisp nights, my companion and I kept the brilliant fires burning.

These two months in fairyland were ended with the long hauls of brick to the city in the warmth of the amber sunlight of a Wisconsin autumn. On these trips we drove through long lanes of yellow and scarlet foliage of the maples, the oaks, and the elms, and saw all about us the ripe fruit and the opening nut burrs.

My skin was tanned, my muscles trained to hardness, and my health perfect as I left behind me the strenuous duties of the brickyard. I wondered if it would be my last adventure there. And it was not without regret that I said, "So long" to Uncle George, to Aunt Betsy, to long, honest Richard, to Washington, my old playmate Tom, and the faithful girls, Delia and Mary. I picked up my little bundle and nonchalantly wended my way out to the accompaniment of their good-natured, "Well, good-bye, 'Dock.' Don't forget your pills when you come again." And the two or three mongrel dogs wailed, "Good riddance."

II

I was lodged in the comfortable home of Grandfather Carlin, ready to begin the study of medicine. Aunt Mary, ever a joy to us children, Grandfather, with whom I was always irritatingly arguing, and Grandmother Ella, notwithstanding her thrift and practical methods, all stood for much of my rollicking nonsense.

I had familiarized myself with my chores and organized them. Plenty of wood must be on hand for the fires in the kitchen, the large dining room and the living room. All of these wood fires were to be started by me each morning at five o'clock, and in addition kindling and other essentials supplied for the making of the fires in the "parlor" and one or two sleeping rooms, that might be called for almost any night to entertain the many friends who were always expected and hospitably welcomed.

Two horses were to be watered and fed, their stables kept, and their coats curried; three cows must be milked, housed and fed every night, and turned out into the barnyard each morning so that they might feed from the stack of fodder. There were other cattle and a fine lot of hogs to feed and water. I had to perform these delicate services during

the hour that intervened between making the fires in the morning and enjoying the well-earned breakfast that fairly made the table groan. By the time the family assembled around the breakfast table, at six-thirty or seven o'clock, the wood fires had warmed the fresh air, the oil lamps cast a cozy glow over the happy group, and appetites of healthy people did the rest.

But to my task. I met Dr. Spalding by appointment. I was at his office at eight-thirty Monday morning. As there was no fire, I scurried about and succeeded in getting the large, bare room on the second floor of the Watertown Bank Building fairly warm and comfortable by the time Dr. Spalding came in. He was six feet two inches in height, of magnificent proportions, and had a fine, handsome face, covered with a close-clipped beard.

He looked around, observed the fire, walked over and shook my hand for a long time, and said: "Are you positive you want to be a doctor?" I assured him that I was, while in my embarrassment I felt that he was disappointed with my youthfulness and apparent greenness.

"Well," he said, "all right, but remember it is no child's play. How much time can you give to study?"

I suggested from nine to three. That seemed to satisfy him. "How about keeping the fire and slicking up the office?" I asked. He looked a little surprised as he surveyed the big room. A big bookcase which stood at one end was piled with books in all kinds of confusion; a large table was covered with half-empty bottles, old writing paper, scraps of newspaper, half-filled ink bottles and ink-stained pen holders; several rickety chairs stood about, one an easy arm-chair covered with a rag-carpet rug; a large ample couch at one side, covered with old newspapers and a few ragged pillows; and in the center of the room, a large, bulging cast-iron stove, set in a sand-box several feet square which was well decorated with cigar stubs and other refuse. There were a few large tin spittoons about; the floor was bare and had the appearance of the backyard of a third-class tenement. Of course there were layers of dust and dirt everywhere.

After a careful survey of the premises, he said he would like to have me keep the place warm and sweep it out occasionally, but he did not think it was necessary to disturb things much, as he now knew where to find everything.

He went to the bookcase and after a long search in the confusion brought out an old Wilson's "Anatomy" that had received hard usage, blew the dust off the yellow leather cover, handed it to me and said, "All right, you learn what is in that, and occasionally I will quiz you. I may want you to go out and help me every once in a while." Then he left.

Dr. Spalding was one of the outstanding doctors of the entire community, with a reputation as a surgeon, and in constant demand as a consultant. He was well read in the literature of his profession, and a great student of general literature. He had graduated in medicine from the University of the City of New York in 1847, and served as a military surgeon throughout the Civil War. He was a man of strong convictions, respected by all, had a keen philosophic mind, and was a most interesting companion.

Frequently he would come into the office, stretch out on the old couch or the carpet-covered chair, and entertain me with reminiscences. But for weeks he never mentioned my studies, and never asked me a question.

In the meantime, I remembered his injunction to "learn the 'Anatomy'" and I was following his orders. I began with the first chapter on bones, and committed it word for word, commas, semicolons, periods, the dotted i's, and the crossed t's. I could begin at any paragraph and recite it verbatim.

One day, as he stretched himself after a siesta on the unsightly old couch, he lazily turned to me and said, "Frank, what is the 'antrum of Highmore'?" I told him.

"What bones enter into its formation? Can you bound it?" Without hesitation I began. If anyone is curious about my task, he may be interested to refresh his memory by reviewing the bones of the face, nearly all of which, in an intricate manner, surround the "antrum of Highmore." With exactness I proceeded to bound this cavity, described in detail each notch, each foramen, each ridge, as they completed the mosaic of the antrum. When I was well started, he quietly sat up and gazed at me, and leaned forward with his hands resting on his knees. When I finished, in great astonishment he said, "My God!" and got up and left the office.

A few days afterward he brought me Gray's "Anatomy" and informed me that it was more detailed and up-to-date. He said, "This is an extra one, and you may keep it as your own."

I realized this was a compliment. It was my first possession in the way of a medical book, the first important unit of my professional library. It was a large, leather-covered book, stained by wear, and in six months I knew its contents word for word. Never did a preceptor give more valuable advice to a student of medicine than Dr. Spalding gave to me as he impressed upon me that I was not simply to read, but that I must learn the human anatomy word for word, and in its entirety.

III

Frederick Julius Parkhurst, a young man two years my senior, came into Dr. Spalding's office as I was poring over my anatomy and announced that he was studying medicine across the street, in Dr. William F. Whyte's office; he had heard about me and had come to pay his respects. He was thoroughly up-to-date, and city-bred; president of the Y.M.C.A., he informed me, and proceeded to invite me to join his organization and to come out and meet some of the young people of the city. He already knew that I was "stopping out at the Carlins'."

I was rather overwhelmed with his importance, and appreciated my inability to cope with him and his society. I managed to make my apologies, and he evidently soon realized that I would be more or less difficult socially. Finally, I promised to attend, with my Aunt Mary, the lecture by the distinguished orator, Mr. Mark Carpenter, of Milwaukee, that was to be given in the Congregational Church under the auspices of the Y.M.C.A., with Parkhurst as chairman.

Aunt Mary encouraged me in this friendship and accompanied me to the lecture. I was still further awed by my new friend as the distinguished guest was introduced by him, with "appropriate words," to that large audience.

The friendship developed slowly, and the cultivation was active exclusively on the part of Parkhurst. I was not equal to grasping the amenities of metropolitan society. However, he urged me to go to Chicago the following winter for our first term in medical school. Though this suggestion seemed premature, I was interested in it; but I said I couldn't consider it. Then he drew from me the information that it was a matter of money. He was "broke" too, he said. We would

go together and for the first year "batch it." He admitted that he was a fine cook, and he was sure that I could learn. This suggestion solved the principal difficulty for me. There and then I began to lay my plans to move to Chicago and begin my real studies in medicine the following winter. Aunt Mary and my grandfather, to whom I immediately communicated my plans, could not see how it could be managed.

IV

Grandfather Carlin had been an intense partisan since first he had the vote. In his home, this year as always, there was great keenness about politics, and my life during the winter was an intense study in national politics. It was October of 1876, and Tilden and Hayes were locked in a fight-to-the-death to break the hold of the Republican party, or to give it a new lease on life after the recent scandals under the second term of Grant's administration. As was well known to us all, Alexander Carlin was an uncompromising Democrat of the Andrew Jackson type. He had lived through fifty years of administration after administration, policy after policy, prejudice after prejudice, and this had taken root in the very fibers of his being. He had the history of our country at his tongue's end, as a result of the many years of controversy during which he had been humiliated or triumphant, as the case might be. Here at last, with dissatisfaction everywhere, after twenty years of feeding on the husks of defeat, with the great Samuel J. Tilden—who had the approval of the key state, New York—matched against an Ohio politician, was his chance, the chance of his party to sit again at the first table. So nearly a month in advance the discussion waxed hot. Aunt Mary was an ardent politician, and a Democrat from the bottom of her feet to the crowning beauty of her red hair. Each night I brought from the city the old Chicago *Times*, and after the dishes were washed Aunt Mary read to an excited audience every word of the political news.

This program was disturbed only by the click of knitting needles in the hands of imperturbable Ella, and occasional outbursts of applause or definite condemnation, accompanied with enthusiastic or lurid language, from Alexander. By the time election day approached, the seventh of November, we were worked up to the highest pitch of bitter partisanship.

Sure enough, the triumph was assured before we retired on the evening of election day. Happiness and satisfaction reigned in the comfortable home on the outskirts of Watertown. The next morning the local newspapers contained disturbing news. For the first time triumph in the East—New York—might not insure election.

But the Chicago *Times*, our political bible, would clear up the unwholesome rumors and give us the true news! The following afternoon I ran the mile from town to deliver the latest news to the impatient but still confident little group on Carlin hill.

The paper was grasped by Aunt Mary and supper was forgotten. The headlines were disquieting. "An attempt by the carpet-bag government to steal the electoral votes from Louisiana!"

My grandfather was loud in his ridicule of such a canard. "Lies on the face of it. Stealing one of the states of the solid South! But go on. What if they do steal it? Haven't we got New York?"

"Wait a minute," and Aunt Mary announced that Louisiana would tie the votes of the Electoral College. Maddening news after it was all settled!

"It means civil war, and this time I will not leave it to the boys. What is the matter with the *Times*, is it turning traitor? Read on."

Worse and worse! "It is rumored that two districts in far-off Oregon, that had been counted safe, were voted Republican."

"Oh, of course. Anything else that they have stolen? This is the end of popular government. It is military autocracy from now on. But they will find that two can play at the game."

Throughout the winter, until midnight of the third of March, no one knew positively who would be our next President. The evidence was sifted, and according to those of us who were for Tilden, it was definitely in favor of our candidate. But it was to be otherwise; and on March 4, 1877, Rutherford B. Hayes was inaugurated as President of the United States. Though not my grandfather's first disappointment, it was without doubt his bitterest.

V

My winter's study was over. I had memorized practically every line of Gray's "Anatomy," and while I did not appreciate it then, I had performed an important feat that proved of benefit during my entire

later career; and as a matter of intellectual discipline, I am sure it was as valuable as any university course of like duration.

I planned to go to Chicago in September, and enter either Chicago Medical College, affiliated with Northwestern University (now Northwestern University Medical School), or Rush Medical College. I had overcome my awe of my friend, Parkhurst, and we decided to take the plunge together and work our way through the three-year medical course. Concretely, we would board ourselves, cook our own meals, do most of our own laundry, make our own bed, keep our own fires, and clean our own living quarters. Each of us arranged to take certain provisions, and we estimated the minimum amount of cash that each must command in order to pull through the first term.

It would be a busy year. I could not afford to try for another school because the income was too meager, after I paid for my board. So I decided on manual labor, and nothing could be more profitable than farming and brickmaking. My first duty was to my family on the Munger farm. In the early spring weeks I worked early and late with my stepbrother, Dan, as my companion. Although we were first cousins, our temperaments and tastes were decidedly different, and our association was not always harmonious.

Soon, however, I was working on the farm of Uncle William Fulmer, who had died a year before. I was to assist with the haying, corn planting, potato planting, and care of the hops. It was ever a pleasure to be with my two cousins, Albert and Alfred, who were close to my own age.

In this hospitable family, with their talent for music and pleasure, there was no monotony. The horses, buggies, and carriages were in constant demand by the younger boys; by Lydia, an attractive girl several years my senior; and by the two older boys, Wallace, who was married and had his separate home on one section of the farm, and William, an attractive young man who possessed unusual musical ability and who was the leader in this artistic diversion. Aunt Lucretia presided over the household, and with her at this time lived Caroline, my Grandmother Martin, who was bordering on eighty years of age. She was in good health, physically and mentally, and still impressed everyone with her strong personality.

We enjoyed Saturday afternoon excursions to Oconomowoc, fishing

and hunting on Sundays, and the constant gaiety of a family so imbued with the artistic temperament that it was a treat to be a part of it.

There was, of course, plenty of work to do, and I was called upon to fit into the many tasks that are a part of a large dairy farm, particularly milking, a job that no one sought; but my special assignment was to care for a large field of hops, a wholesome job and an interesting one. First, early in the spring, the tall tamarack poles were set out by at least two men with a team. The poles were placed in rows, two to each hill of plants, and each pair eight feet apart; next each little plant or vine was trained to climb its particular pole. If once started in the right way, like a well-trained child, "it would not depart from it."

Then the broad aisles between the rows were cultivated by a large, flat drag with steel claws, drawn by a strong horse. The roots of each little plant were kept free of obstructing weeds, and the black soil was hoed to keep it fresh and loose about the roots.

Late in September came hop-picking time, a more or less gala affair, according to the seriousness or lack of seriousness of the motley group of children or women who volunteered for the work. Within two or three years I had served my apprenticeship in hop-raising, including planting, cultivating, pole pulling, pole placing so that the matured hops were convenient to the pickers, picking, stripping the poles of their vines after the picking, emptying the filled boxes, keeping account of the work of the individual pickers, drying the green harvest in the sweat bin, and finally packing the dried hops into large, hard bales in the packing room, and securing them in the coarse canvas covering.

My services at the Fulmer farm extended from the spring months through harvest time, and then I returned to my brickmaking until it was time to prepare for my departure to Chicago.

I was troubled because of my limited funds. I must have seventy-five dollars for my tuition, that was inevitable. I must have six dollars for the fare to Chicago, and I must have something with which to begin our housekeeping affairs, including primitive household fixings, and of course the first month's rent. Parkhurst could be depended upon to care for his half. After purchasing essential clothing and getting together every cent I had saved, I had barely enough to pay my fare to Chicago and my tuition. My near ones knew of my straitened cir-

cumstances and would gladly have helped, but they were without resources. I had been warned that postponement was advisable, since those near to me could not conceive that it would be possible for me to raise so much money; and there were those who did not sympathize with one who sought a profession that was devoid of real work.

In my desperate dilemma, I remembered what dear Grandmother Martin had said to me as I told her in the early spring of my determination to become a doctor—that it would cost a heap of money and she wished that she were rich so that she could help "Edmond's boy." She had expressed a desire to help. Would it be right to discuss the matter with her? She was not rich, but she might be able to loan me twenty-five dollars, which would enable me to get to Chicago, make my start, and not fail Parkhurst.

Much perturbed, I sought the interview. She wanted so much to aid me, but she did not have any money, or at least not sufficient. She could and would have complied if the rent of her farm had been paid. The farm was rented to the husband of one of her relatives, and he had not paid anything. He should do so and she would ask him; but she was afraid that he would be "pretty slow."

In a week the renter, in a rather belligerent mood, approached me and said: "You are in pretty small business, begging money from your old grandmother to waste on 'highfalutin' schooling." For several days I tried to think of some other lead that I could negotiate, but there was none. Then my grandmother sent for me and gave me twenty-five dollars! She refused to accept a note, even when I urged that it would not be fair to her heirs if she did not. Spiritedly, she said it was none of their business; she was still alive, and she wanted me to accept it as a gift. And now, hurrah, the last hurdle had been successfully negotiated.

At the Munger farm, my mother and stepfather had been assembling things for their son. They had secured a paper-covered trunk, frail but of gaudiest yellow, in which there was much space to store the substantials for housekeeping. A barrel was packed with bedding, towels, some cooking utensils, and dishes. On Sunday my stepfather would drive me to Watertown, and from there Parkhurst and I were to go to Milwaukee on Monday, receive our credentials from the state board of examiners, and continue to Chicago at midnight.

VI

"Good-byes" were said, and with the trunk and barrel in the back of the "Democrat" wagon, and Elon, the carpenter, and I on the high spring seat, I was started on the great adventure. We went down Munger hill, by the site of the "shop," past the Martins' log house, out onto the Milwaukee road, along the big bend of our Rock River where Alexander and his family camped on their first Sunday in Wisconsin, over McCall's bridge, and on to Ixonia Center, my birthplace, where my beautiful mother many years before had received the sad and fateful letter which told that my father, Edmond Martin, had made the supreme sacrifice in the Civil War. Here we stopped, as a thunderstorm was gathering. Just in the nick of time we drove under a hospitable shed near an open blacksmith shop.

Though there had been many severe storms in Wisconsin, this was the most terrifying one I had seen. Even the imperturbable Elon, the carpenter, showed signs of nervousness. Several times within a few rods of us trees were slivered by flash after flash of lightning. The thunder was deafening and the rain came down in torrents. Our old horse trembled and screamed with terror. As crash after crash came in quick succession, I began to wonder if I was not being warned against my determined course—the quest of medical knowledge. Then as suddenly as it came, the fierce bombardment ceased, a brilliant September sun broke forth, and we quickly continued our journey in a world that had been washed and beautified as by baptism.

It was the most important step of my life, and I did not lack appreciation of the fact. Instinctively I knew that my stepfather felt its seriousness. But people in those days did not express their feelings, nor did they give unsought advice. What could he say without implying that I needed advice or congratulation or encouragement? My fate was in my own hands, and he would aid my efforts to the utmost. Lack of expression by this wonderful man of character did not mean lack of feeling and concern. He knew the sacrifice it entailed to all of us to support this move, and he was only hopeful for my sake, and the sake of my mother whom he worshipped, that it would not fail. There were no open prayers from the housetop as I started forth on that day, but there were silent prayers by dear people who loved and were loved.

The real adventure was launched and Parkhurst and I were off. The train wended its way through the lake region where we had been born, had learned to play, to work, and to swim, and had developed strong bodies and clear minds. Now we were to test the value of our wholesome training.

The hard and soft maples were turning to yellow and scarlet, dew was upon the late green, and sunshine was all about. Our young souls were filled with joy; and this joy of living was enhanced by anticipation of the immediate future, which, though obscured by inexperience, had the glamour of radiant hopes.

VII

It was noon when we disembarked at the metropolis of the state—Milwaukee. At the railroad lunch counter we had reinforcements which consisted of a generous sandwich and a cup of coffee. Thus we were ready for our business engagements of the afternoon. First we had to procure from the Board of Censors of the Wisconsin State Medical Society the credentials that would establish our eligibility to matriculate in the medical schools of Chicago. We checked our scanty belongings at the station and walked to the office of Dr. Solon Marks, a member of the Board. Dr. George D. Ladd, a young office associate, received us with great cordiality and instructed us as to the best course of procedure. We could see Dr. Marks as soon as he was disengaged, and then we must get in touch with Dr. Nicholas Senn, who was more difficult to locate, as he was busy at the various hospitals and dispensaries "all about town."

Dr. Ladd carefully inquired when we expected to continue our journey to Chicago. We informed him that we would take the two-thirty a.m. train. He was a kindly sort, and, evidently having sized up the situation, said: "Don't bother to go to a hotel when you have finished your business. Come back here, and one of you can sleep on the couch in the waiting room, and the other on the 'torture table' [a large, leather-covered examining table], and I will have the night watchman awaken you in time to catch your train." This was a welcome offer, as we of course had never dreamed of a hotel and expected to wait in the station.

Dr. Marks, a benevolent, kindly man of the old school, prepared our

certificates, asked us a few questions, gave us some conventional advice, and sent us on our search for Dr. Senn. He was not easy to find. We visited his house, but apparently he seldom went there except to sleep. We followed one suggestion after another, and walked from place to place. Late in the afternoon we located him in an obscure barn or outhouse, his experimental laboratory, which was attached to an asylum or sanitarium. We were warned that it was not customary to disturb him when he was at this rendezvous. But our business was important and we had notified Dr. Senn that he might expect us on this day. Loud pounding on the door of the barn brought barks from several dogs within. After some seconds there appeared at the door a short-set individual clad in a blue gingham apron, a scowl upon his interesting face, his dark hair disheveled. He demanded the cause of the disturbance. We told him and presented our certificates.

He grumbled, stepped back into a small entry, held the two certificates up against the boards of the partition to sign them, handed them back to us, and said: "Where are you going?"

"To Chicago," was the answer.

"Yes, of course. What school? Chicago Medical or Rush?" We said we had not decided with absolute certainty.

He replied, "Go to the Chicago Medical," and added one or two other remarks that indicated a positive partisanship for the school he recommended. His gruffness and apparent impatience to get back to his work left us speechless, and his immediate disappearance permitted us to leave without formality. He made, however, a definite impression on the minds of the prospective doctors, and that "Go to the Chicago Medical" had a decided influence in determining our selection.

We were now free to explore our metropolis, a real city in the eyes of two country boys. There was the river with its swinging bridges, the ships of the sea, the huge buildings, and to the east the beautiful inland sea with its stately shore line and its long arms of breakwaters.

The "torture table" and the couch in the waiting room of generous Dr. Ladd were appreciatively accepted. We slept until the faithful night watchman, after all too short a time, called us to attention. In a minute we were both wide awake to new experiences, and on a dead run we raced down Milwaukee Street, toward the Chicago, Milwaukee, and St. Paul Railroad station. How could we have slept with

a day of yesterday's proportions in retrospect, and a day of today's importance in contemplation? There would be time to think of the oncoming day as we sat in the poorly ventilated railroad coach. But in the drowsy atmosphere, with sleeping travelers all about us, we nodded and soon dropped off to sleep, suddenly to be awakened by dawn and the sordid scenes of a railroad entrance into the city of our dreams, then more properly called in derision the "Windy City."

VIII

In 1877 the station of the St. Paul railroad in Chicago was not a dream structure, and near-by the Chicago River, pouring its sewage into the great lake, was most unattractive to boys who had lived in the midst of the clear streams and lakes of Waukesha and Jefferson Counties, Wisconsin. The river fairly seethed with filth and steamed with foul odors. But why worry? Were we not at last in the great city of the West, the seat of our future training in an honorable profession?

Again we left our belongings at the station, stoked our engines with leathery sandwiches at the lunch counter, and supplemented this sumptuous provender by doughnuts, and coffee with plenty of milk. Our toilet had been simple, and in that early morning we were soon ready for explorations. We must inspect Rush Medical College, though we had already in our minds discarded it as our educational center. We traversed the business part of the city, walked east on Madison Street, the main thoroughfare east and west, looked north and south on State Street and on Wabash Avenue, and finally reached Michigan Avenue, with Lake Michigan lapping its eastern edge.

Michigan Avenue is now one of the great sea-front boulevards of the world, but at that time it resembled the abandoned backyard of a sordid village. The view was distinctly marred by the ragged row of piles, the Illinois Central right-of-way, which traversed the shallow waters of the lake several hundred feet from the shore line. Inevitably we drifted over to the famous Palmer House, viewed the spacious halls and parlor, gazed in wonder at the beautiful entrance and entresol, and finally saw with "our own eyes" the silver dollars cemented into the marble floor of the barber shop; and our immediate capacity for marvels was satiated.

We asked for directions, boarded a mule-drawn, bob-tailed street

car, and traveled west on Harrison Street, which took us through many squares of ruins of the fire—ruins which stretched north to the spacious Grand Pacific Hotel. We crossed the river, and after traveling for some distance through sparsely inhabited districts, came to Wood and Harrison Streets. Here was the large, new, yellow brick Rush Medical College, an impressive structure to our inexperienced eyes. We were received with extreme cordiality by officials and a large group of prospective students, and though we were interested, we were careful not to reveal the fact that we were partial to the rival institution on the south side.

Our busy morning had been filled with excitement. By eleven o'clock we had retraced our route from the west side to town, and were on the south side, at Cottage Grove Avenue and 26th Street. A walk of two blocks west on 26th Street to Prairie Avenue brought us to the Chicago Medical College. The contrast depressed us. Had we made a mistake? The building, old and battered, with its bare, dusty walls and unkempt floors, was most unimpressive. It was but one week in advance of opening of the school, but there were no officials to greet us and no enthusiastic students to argue in favor of their institution. A search finally unearthed a shabby, middle-aged janitor who took no pains to serve us nor to change our first reaction. Reluctantly he showed us the two amphitheaters. We were somewhat encouraged. Then he unlocked the museum, and we were thrilled by the mounted skeleton of "Jumbo," an elephant famous in traditions of the circus. The large chemical laboratory, with its unfamiliar odors and unchanged air, contained shelves covered with dust, a few bottles partially filled with chemicals, and individual tables for the students.

At this point in our tour of inspection two individuals arrived and took possession of us, one a man named Charles L. Rutter, who was demonstrator of anatomy, and the other William H. Byford, a son of the famous elder Byford who was a professor of obstetrics and diseases of women and children in the institution. It was evident that they were not over-burdened with responsibility, and had constituted themselves unofficial guides to prospective students.

They soon reassured us in our doubts about our tentative choice. "Rush is all new building; it has no exclusive hospital, and the large number of students all attend the same classes." They contrasted this

uninviting picture with: "Our College has Mercy Hospital right here in the same block. We have quality in students rather than numbers. We advocate a three-year course, and our students are divided into classes—junior, middle, and senior. Look at our faculty: Davis, Byford, Johnson, Hollister, Andrews, Roler, Quine. Wait until you hear Quine! Come over on Friday afternoon and see Andrews amputate a leg," etc., etc. They were real propagandists, and fortunately for us in our indecision, good salesmen.

IX

As we were more and more favorably inclined toward the Chicago Medical College, they hastily advised us to go over to the registrar of the faculty, Dr. Daniel T. Nelson, at the corner of 24th Street and Indiana Avenue, to avoid the crowd that would soon appear to register. We followed directions, and found ourselves in the presence of kindly Nelson. We were impressed by his tall figure, his queer, flat head, and his interested advice. His friendliness encouraged us to ask him about the "prospects" of renting rooms for light housekeeping. He referred us to the janitor, and in the meantime promptly urged that we see the treasurer of the school, Professor Hollister, as it was hardly safe for strangers to carry large sums of money in a large city. This struck us as a good suggestion, and within a few minutes we were in the presence of the treasurer, who measured up to our notions of a real professor. His large head with its long hair, his strong face of the Henry Ward Beecher type, his ample figure, his strong voice, and his decisive speech awed us to strict business conduct, and a prompt transference of our first year's tuition, for which we received receipts that were placed in the yawning vacuum of our purses. Notwithstanding his dignity and impressiveness, Dr. Hollister, as he shook our hands in parting, cordially invited us to Plymouth Church, and told us we would be especially welcome in his Bible class, immediately following the morning worship.

The die was cast; we had registered and parted with our wealth, and only meager financial resources, astonishingly meager, remained. It was high noon, and a low-priced eating stand was the object of our search as nourishment was necessary before we started our hunt for a permanent home. Our spirits were high. Much of moment had

happened since morning, and we were satisfied with our decision as we had selected a school which, though not gaudy and new, catered to "quality rather than to numbers"; and two dignified and eminent professors had received us most cordially.

Shortly after one o'clock, we were back to consult the janitor, William Eisen, about "rooms for light housekeeping." His list of rooms was discouraging. Not one seemed to fill our peculiar requirements, but we took the list and started on our tour of exploration. Ignorant of the social status of the localities covered by our list, we soon found that Calumet, Prairie, Indiana, and Wabash Avenues contained high-priced rooms, many with board, high-sounding accommodations that dissuaded us from asking if light housekeeping would be tolerated. Parkhurst startled me by suggesting that we might be driven to extend our planned budget if we were to get any place at all. I was most outspoken. He could not abandon me now, after I had paid my tuition; the budget was fixed as far as I was concerned, and its extension would mean my return home.

As we continued our search, we discovered that the rates were lower on State Street and the streets farther west, and that here the doors were not necessarily closed in our faces when we suggested "batching" it. We soon ignored our list and sought out any house that had "Rooms to Rent." Some of the neighborhoods to the extreme west were impossible. We decided against the colored neighborhood, and soon learned to avoid it. Well along after three o'clock we turned eastward, tired and discouraged. We had avoided State Street, because it was mainly business. Closer scrutiny on our return revealed several blocks of frame cottages, set back from the street, many of them with "For Rent" signs, "Furnished Rooms," "Unfurnished Rooms" etc. On the east side of the street, between 24th and 25th Streets, was a whole block of such cottages. We began at the first one, alternatingly approaching house after house, whether with "For Rent" signs or without, to inquire for rooms.

X

In the middle of the block, at number 1133, a bright-faced woman about thirty years of age appeared at the door, and to my query about rooms, said with a distinct Irish accent, "Why did you come here?"

I explained that we were two medical students who wanted a room for nine months, during which we would "batch" it and attend medical school.

"Cook your own meals?"

Yes, we thought we would prefer that way and save some money.

The Irish woman was apparently interested as well as amused, so she said, "I have a couple of rooms, second floor back; one furnished, the other bare. Possibly they would be good enough for you."

I replied that we would prefer one room, but I would look at what she had to offer.

There they were, at the top of the stairs—a small room with a red ingrain carpet, and a double bed, and an east window which overlooked vacant lots to Wabash Avenue. Adjoining this and opening onto the common hall was a larger room. It was the old story; the location, the attractive bedroom, the larger room with a table and a couple of chairs, and a sink and running water in the hall, all absolutely ideal, but of course beyond our means.

"I'm afraid these will be too expensive," I ventured.

"How much are you willing to pay? I could let you have these for four dollars a month, if you will furnish the large room," she replied.

Heaven bless her! Just the outside limit we had fixed upon for one unfurnished room, and here was a suite in a clean house, one of the rooms furnished, with a large bed and that nice red carpet. I said I thought we would accept if we could move in at once. It was quick work; I agreed to pay the first month's rent in advance and suggested that I would call my friend. I overtook Parkhurst, who was drearily calling on the neighbors, and informed him that I had rented the rooms. He was astonished, but in the presence of our landlady, to whom I introduced him, he tried to conceal his great pleasure as I showed him our apartments—the bedroom with the red carpet and its outlook in the rear through to aristocratic Wabash Avenue, the bare room, and the running water in the hall.

It was now late afternoon and we must sleep the night in our new quarters. I was to engage an expressman, and bring up our trunks which contained provisions, and the barrel of bedclothing that had been shipped by express. While I was gone, Parkhurst was to hustle around among the second-hand stores on State Street and purchase

a cook stove and necessary equipment so that we might prepare our supper and future meals.

I found a good-natured expressman at the corner of 25th Street, but as I climbed onto the seat to accompany him to the station instead of handing him the trunk checks and the express receipts, he looked askance, and then, with an amused expression, accepted the situation.

The drive down Wabash Avenue, over Jackson Street, to the St. Paul station on Canal Street, was extremely interesting. I was tired from the exertions of the day, and ready for a leisurely sight-seeing trip. My companion was chatty, and pointed out the many wonderful sights of the great city.

At the station I presented my checks, and accommodatingly climbed over the counter of the baggage room to help seek out our precious baggage from among the many trunks. Soon I spied my little yellow paper-covered trunk, which, for safety, had been bound around with a stout bed cord. But horrors! At a distance I saw that it had a large hole at one end, and a half peck or more of potatoes had spilled out onto the floor. It was too embarrassing, and I refused to recognize the trunk. The expressman, however, sized up my predicament.

"All right, son, I guess it's your trunk all right."

Good-naturedly he stood the trunk on end, picked up and replaced the recalcitrant potatoes, and, probably to save me further embarrassment, tied a large piece of folded brown paper over the yawning cavity with the bed cord, carried the trunk out to the express wagon, brought out Parkhurst's trunk, and we moved away. That was one of the embarrassing moments of my young life; and the generous soul within the person of that rough expressman prompted him to understand, to sympathize, and to spare me.

Our next stop was at the office of the American Express Company on Monroe Street, and then we trotted down to the new domicile at 1133 State Street, Chicago. There I found that Parkhurst had not been idle during the hour and a half that I had been absent: He had secured a cook stove; cooking utensils—including a frying pan, a tea kettle, and a coffee pot; a boiler, a wash tub, and several other necessary implements. An old dry goods box had been converted into a bookcase for our extensive library, and a space provided for our museum of bones—a grinning skull, several long bones, and a complete, articu-

lated arm and forearm, with the complex bones of the wrist and hand. This bookcase occupied space on the back of the kitchen table, which Parkhurst had placed against the wall; and for months we faced these objects in our museum as we sat at the table to eat our meals or to do our grind at study.

A fire had been built and as soon as I arrived with our trunk of substantial edibles and dishes, Parkhurst, who was scheduled to cook during the first week, was ready to prepare the meal. He had secured some sugar and ground coffee at the neighboring grocery, and had borrowed milk from our interested landlady. The supper consisted of baked potatoes, savory salt pork that floated in its own brown fat, bread transported from our Wisconsin farm, butter churned by Mother, preserves from the wild plums along the Rock River, fruits and nuts. The above menu was generously amplified by the cakes, pies, and doughnuts which had been fitted into the corners of our two trunks. It was a meal fit to tempt any normal boy of twenty, and it was doubly tempting to two over-worked bodies such as ours. This, our first of many similar meals, may well illustrate the hardships that we were destined to endure after our "dainties" were consumed.

In my capacity as chambermaid, I had unpacked the bedclothing and prepared the downy bed, which we had earned and in which we would appreciate a night of sleep. Then the soiled dishes were washed in the new dishpan, dried on the ample towels brought from home, and the living room was tidied; the two proud souls sat but a moment to reflect on their accomplishments, declared themselves satisfied with the first day of their great adventure, and tumbled into the comfortable bed for that first night's sleep, of which this is the first record. It simply was, and then came the dawn of the next day with the sun high over Lake Michigan shining full strength in the window of our sleeping room with its red carpet. The joy of our second day was upon us.

XI

Our living quarters were but five blocks and a half from the college building; the rent, which was paid for the first month, was within our means—only fifty cents a week apiece; there were enough substantials in our boxes to afford us well-rounded meals with but small purchases

at the grocery, our household utensils had cost us less than twelve dollars. After the above outlay and the purchase of half a ton of coal, we still had a little cash left and were without debt. The prospects for a thrifty winter were good. Parkhurst had discovered that he could purchase for five cents a large, round loaf of half rye and half wheat bread. It was delicious in taste and wholesome for digestion, and nearly double the weight of the white bread which sold for the same price. For obvious reasons, and because it "went further," this became our favorite ration and staff of life.

There were several days for exploration before the real grind began. Each morning we went to the college building to observe the new men who enrolled and to extract gossip from Byford and Rutter, who were interesting and always ready to impart information about professors, ways and means, and old and new students. Among other things they gave us valuable pointers about the books to select and the most economical place to purchase them, especially second-hand books. These informants knew all about the worth-while happenings at the clinics, and how and where we could make ourselves at home.

Three days before the formal opening of school, we saw Prof. Edmund Andrews amputate a leg. This was field day at the clinic and all of the junior students and many from the middle and senior classes were crowded into the old amphitheater at Mercy Hospital.

It was a proud day for all of us, but especially for the young internes who importantly swelled about us as we foregathered for the exhibition. The stir of preparation for a "major operation" was on.

When Professor Andrews shuffled in, big and bustling, there was uproarious applause which indicated to us "new ones" that he was a great favorite, a fact that is substantiated by history. He was big not only in his actions. He had a large head, a bewhiskered face, large kindly blue eyes, a large generous mouth, and an abstracted expression. He was an intellectual giant and reminded one of portraits of Charles Darwin.

A wretched individual was brought in, and his useless ankle joint demonstrated. The professor explained how bravely the patient had coöperated in an effort to save the leg, and that now he had courageously volunteered to sacrifice his limb to save his life. We duly applauded the hero, who showed his appreciation by turning his face

to us and attempting a smile of thanks. Some of us, I am sure, felt sorry for the poor devil, although it was not good form to admit it to one's self or to one's neighbor. The whole scene is vivid in my memory, particularly the emaciated face and the large glistening eyes, which we afterwards learned to recognize as symptoms of tuberculosis.

The interne covered the face of the victim with a towel which he saturated with ether. The long process of anesthetization was begun and the fumes of ether, inhaled for the first time by many of us, soon filled the room. Professor Andrews took his instruments from a large black satchel, laid them in order, and immersed them in a five per cent solution of carbolic acid, which it was duly explained would render them antiseptic. The surgeon took off his coat, rolled up his shirt sleeves, and dipped his hands into a two and one-half per cent solution of carbolic acid. This, it was explained, rendered his hands antiseptic. It was all very impressive to the junior members of the audience, and it was with bated breath that we awaited the first bloodshed that we were to witness of our own volition.

Finally it came. The victim ceased his struggles and breathed stentoriously; his emaciated leg was exposed, an Esmarch bandage was placed above the point of amputation to expel the blood, the limb was washed with a two per cent carbolic solution, the surgeon took from his pocket a second pair of spectacles and placed them over those he already wore, dipped his hands again into the carbolic solution, reached for the long-bladed amputating knife, and rapidly and deftly with two sweeps of this instrument cut the flesh through to the bone, fashioning two "fish-mouth" flaps. He then grasped a saw, severed the bone, closed up the angle of the stump, and plump! went the limb into a large tin receptacle beneath the table. The older students applauded, and in a brief moment this demonstration was followed by us new ones.

The work of the operator was spectacular and rapid, and according to a technique that had been developed and handed down from the days less than thirty years before when patients underwent such operations without the beneficent anesthetic. Then the large arteries were tied with stout silk that might be withdrawn after it had sloughed off. The rubber tourniquet that controlled the bleeding was carefully loosed by the interne as the operator scanned the stump for small bleeders that might have been overlooked. Several of these, which suddenly spouted

on the white shirts of the operator and his assistants, were soon controlled, and the great "fish-mouth" flaps brought together and secured with stout silk sutures. The ends of the ligatures on the arteries were brought together between the sutures, and left projecting about an inch. Then a large wad of cotton was saturated with carbolized oil, five per cent, and placed over the end of the stump, folded back several inches above, and an outer bandage wound over all.

The students, old and new, filed out of the ether-saturated room, with its sordid operating field and splotches of blood, pieces of soiled cotton, and the tin receptacle beneath the table with the severed end of a man's leg peering out at us—an important portion of a man's anatomy that but fifteen minutes before was throbbing with blood and life. It was our baptism of blood.

2

1877–1878. CHICAGO MEDICAL COLLEGE

I. Prof. Nathan Smith Davis, Our Dean. II. Prof. William E. Quine. III. An Embarrassing Situation and Strengthened Friendships. IV. "Pay Today or Get Out." V. Productive Labor. VI. An Epoch-Making Experience—An Olfactory Diversion. VII. Uncle "Ad"—A Debt of Honor.

I

The school term opened on Monday, October 1, 1877. Members of the three classes gathered in the large amphitheater to hear words of welcome and of advice from the distinguished dean of the faculty, Nathan Smith Davis. We juniors arrived early for our first class. Modestly we occupied rows well up in the impressive semi-circular bank of seats. Soon the members of the other classes straggled in with an important and nonchalant air. One of the newcomers innocently occupied a front-row seat, way down next to the bull pen. There was a growl and a cry from the seniors: "Pass the freshie up." Before he realized what it was all about, the invading "freshie" was seized by half a dozen pairs of hands and found himself being deftly passed from one relay of hands to another higher up, until he was deposited in the rear row of seats, sixty feet from the place he originally occupied. There was but one brief halt in the ascent, when for a moment the victim freed himself and showed resentment and fight. He was quickly overpowered by rough handling, and left humiliated and disarrayed, vainly attempting to show by a sickly smile that he did not resent this rough treatment on the "first day at school." How relieved we green ones were! Easily, in our inexperience, it might have been any one of us.

The entrance door to the arena was partially opened. Silence followed the turmoil and rough house, for the dean was entering! The door was opened to its full width and the assistant janitor rushed in and

placed a book on the reading desk! Shrieks, whistles, and general pandemonium broke forth. The hoodlum students threw notebooks, paper balls, and every other available thing at the disappearing janitor as he slammed the door. Most of the students in the front rows were halfway over the railing in a rush to "pass the intruder up" when again the arena door opened, revealing the dean, Professor Davis, in a black suit with one of the cutaway coats that he wore days and evenings, his white expanse of shirt front, his standing collar and little black bow tie, his long classical face of the Andrew Jackson type, his bushy gray hair, and a narrow rim of chin whiskers that reached from ear to ear. As he stepped forward with a deprecating but pleasing smile of welcome, he received an ovation that I am sure warmed the soul of this statesman of medicine. His unusual appearance, his impressive dignity, and his magnetism instantly gripped any audience that was honored by his presence, and this group of sympathetic, plastic minds was immediately captivated.

In his quiet way he looked us over. It was evident that the full house and the lustiness of our applause pleased this builder of institutions, for the Chicago Medical College was the apple of his eye. He took cognizance of our hilarious reception of the assistant janitor by raising a warning finger and saying: "Young men, much energy is used in play. The best recreation is a change of useful work." And this is an epitome of the life of our great dean.

Frivolity and complacency had disappeared. Even the blasé seniors were all attention. It would be difficult to imagine that anyone could have remained indifferent before this teacher, orator, and philosopher. His strong character attracted, his earnestness and seriousness of purpose compelled, and his logic inspired. Even though his audience might begin by questioning the soundness of his premises, by his persuasive arguments he usually won his case.

We were plastic material in his hands. He reminded us that we were at the threshold of a great profession, and there could be no more important calling. We must be worthy of the profession of our choice, conservators of the bodies of men, and the moral and spiritual menders of the minds of weak humanity. We were not to favor the fleshpots of the wealthy, but we were to serve alike the rich, the poor, and the sordid. No hovel must be too humble, no derelict of humanity too low,

to deter us from our calling of healing the sick. Pictures of hardships, dark nights, stormy days, and long hours were depicted in a way to bring tears to our eyes, and to make us anxious to show that we too would be heroes.

When the peroration was finished, and we were surreptitiously wiping our eyes and blowing our noses, the oratory was lulled into a plain talk that urged upon us the importance of industry. "Our school" was one place where merit alone was recognized; there was "no fun like work"; we must keep our bodies and minds clean by wholesome activities; the good doctor must necessarily be a good Christian. And then we were whole-heartedly welcomed into the school which was to be our workhouse for six long months.

In the midst of applause that must have disturbed the serenity of the people on the street and the residents of the near-by households, our hero backed out of the little door of the arena, and our life's work was before us.

II

We were immediately plunged into work. There was despair among those who were not accustomed to accept an assigned task as something that must be accomplished. The curriculum of study for the junior course, first year, included: "Descriptive anatomy, physiology and histology; inorganic chemistry; materia medica; dissections; practical training in the use of the microscope; practical work in the chemical laboratory." "Materia medica" and "histology" were merely unknown terms to the majority in our junior class. We learned that "materia medica" (and this came from the lips of the "little giant," Prof. William E. Quine, at his first lecture), over-shadowed in importance any other branch of medicine. and that no student could graduate who did not master this subject. Dramatically he closed his lecture in his high-pitched voice, which he assured us could be heard a mile, and he was duly hailed with applause of vociferous intensity and duration that could easily have been heard by him as he entered his carriage a block away.

But we were left in a blue funk because of the caution on the part of the professor that nothing in this important branch should be taken for granted. Was it possible that we must commit to memory and repeat to him at the quiz on the morrow all of the information he had imparted to us on the various drugs, each a little more important than the one before? And what of the Latin terminology, the fundamentals of which many of us had never learned? Even our inaccurate notes would not in many instances give us sufficient clue to locate the information in our new and unfamiliar textbooks. But this was only one of our worries.

Our debonair professor of descriptive anatomy, Thomas S. Bond, the predecessor of Dr. Robert L. Rea, proceeded to unravel the intricacies of human architecture. Parkhurst and I were happy, as we could have repeated the book word for word. But to the majority of the class it was a definite task even more hopeless in perspective than materia medica. And why not? Did not the professor insist that it was the foundation of all surgery; that medicine could not be practiced without an accurate knowledge of anatomy; in fact that it was the most important subject that the student had to learn? The class before him was expected to conquer it if they hoped to continue in the study of medicine.

Then there was physiology, under the stately Prof. Daniel T. Nelson; and inorganic chemistry under Prof. Marcus T. Hatfield, each of whom in turn insisted that no one need anticipate success unless he mastered in every detail that particular branch.

As I look back, I can still sense the confusion and helplessness in which we found ourselves after the first day and at the end of the first week. There was no doubt in the minds of any of us that, regardless of failure in other subjects, we must not and could not fail in materia medica. The impelling personality of Professor Quine made each one of us his slave. We appreciated the importance of anatomy, but the personality of our professor did not urge us on to the effort that the subject deserved; physiology was something that we could "pass in by just reading up"; the important study of inorganic chemistry appealed to most students, and the demonstrations aided in fixing the facts; but for some reason a majority of that particular class soon became antagonistic to the chemistry teacher, and decided in their own minds that if any subject was to be neglected, it would be chemistry.

Parkhurst and I decided that persistent work and extreme industry would enable us, in spite of our general unpreparedness, to make a fair showing in our studies; and because of the rapid accumulation of material, postponement of our daily assignments would mean hopeless

confusion and delay in progress. We must finish each day's work before we retired, because the load of the next day would be sufficient and to spare. It was fortunate that we realized this in the beginning; and it was doubly fortunate that in our seclusion of State Street there were no alluring attractions, no social obligations, to take our time from our work, and no amusements that we could afford to indulge in. We were blessed with a serious appreciation of our responsibilities and of the limited resources which compelled us to conserve our time; and above all we had an unlimited capacity for hard work.

All of our time could be devoted to study, aside from that required for domestic activities and simple household responsibilities, which were organized to the minutest detail. One half-hour after our substantial supper, at six o'clock, we were on the street for an hour's hike. Our favorite walk was down Michigan Avenue from 24th to 16th or 12th Streets, back on Prairie Avenue or Indiana Avenue to our starting point. By seven-thirty or eight o'clock we were back in our rooms, buried in books and scribblings of lecture notes. At ten o'clock we often took a fifteen or thirty minute walk or run in the open, and then back to our sleeping quarters. At six-thirty in the morning we were preparing our breakfast, and at seven-thirty our household duties were finished. Then we studied; and after a half hour's walk in the open, we arrived in time for our lectures at ten or eleven o'clock. At twelve-thirty we were home for our substantial luncheon, and this entailed another half hour's walk. Two of the three or four lectures a day took place in the afternoon.

There was considerable time before and between lectures to visit and gossip with fellow students, and to indulge in "rough house" which gave vent to rather high spirits, and afforded occasion to form new acquaintanceships. Parkhurst and I soon found ourselves making friends with some of the choice spirits of the class, a number of whom boarded in the row of palatial white stone houses on Wabash Avenue, between 22nd and 23rd Streets, known as the "Follansbee Block." As we became better acquainted, curiosity developed among our companions as to our boarding place, as we met our friends in walking to and from our respective abodes. We were noncommittal, and frequently embarrassed as the inquiries became pressing. We realized that these young men were living in comparative luxury and according to conventional standards; and our friendship, which we valued, might be affected if it became known that we were "batching."

So we avoided a direct answer to the question: "Where do you fellows live?" Sometimes it was necessary to leave them abruptly, and as a misleading device, walk in some other direction.

Nevertheless our friendships ripened, and we were pressed more and more to join their little functions, especially on Saturday nights and Sundays. Fortunately for us, we succeeded in avoiding these entanglements. Our studies were difficult to master. Many members of the class failed in their quizzes, but Parkhurst and I held our own. At times it seemed impossible to get through the task. Without our strenuous work, our regular hours, and our wholesome food and exercise, I am sure we would have lapsed into the mediocre group.

III

We had a week's holiday after Christmas, and as we could not afford to go home, we had time to reinforce the weak points of our work, and also to explore Chicago on long, interesting walks. Most of our friends who were living in luxury had gone to their respective homes. One evening, however, as I was walking on Michigan Avenue, I was joined by one of our friends, John Mulholland. I sensed that he was determined to go home with me, as the boys had indicated that they meant to solve the mystery of our extreme taciturnity about our living quarters. I endeavored to shake Mulholland. He took my arm, and an endurance contest began. On this night above all others it would be embarrassing to receive company, because we had done a week's washing of dish towels and other flat-work, and all the articles were hanging on a line stretched across our living room. And I could picture Parkhurst with his elbows on the table, "boneing" in this forest of ghostly linen, all unconscious of the tragedy from which I was attempting to save him.

After we had tramped in the cold night for an hour or more, Mulholland squared himself in front of me, and said: "Martin, you might just as well take me home with you now as later, as I am determined to stay with you until you do. I want to see Parkhurst."

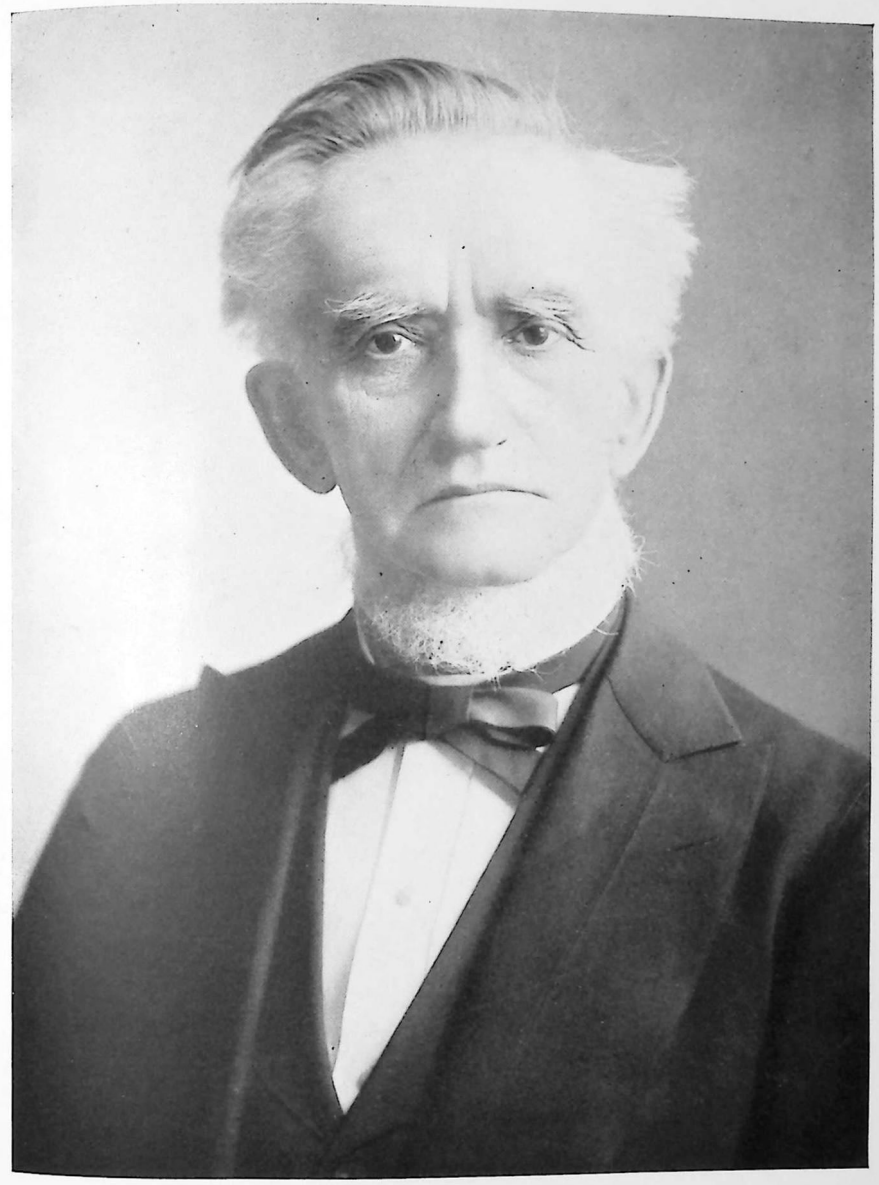
Mulholland was a big, good-natured fellow. First I thought I would make a break for liberty, but by doing so I would acknowledge that there was something serious to conceal; and also it would be undignified

and ridiculous. Therefore I took him home with me. I don't know which of the three of us was most distressed; but Mulholland was a thoroughbred and allayed our embarrassment within a few minutes. He was interested in our arrangements, and asked me to make him some coffee. Soon we had on the table, among our books and parts of skeletons, three cups of delicious steaming coffee, and a repast of delicious cookies and doughnuts that had just been received from home. The articles of domestic and personal usage, our family laundry, swung from the clothesline as we drank, smoked, and broke bread together. They were our flags of truce. It ended as it should, with sincere friendship and mutually enhanced respect, and a clearing of the atmosphere that our foolish sensitiveness had kept foggy.

After the holidays were over and the vacationists returned, we entered upon the three long months that were to test our merit, and segregate the successful students from the unsuccessful and the indifferent. We were delving into fundamentals. The ground was fallow, and every inch of it had to be intensely cultivated or the crop would not be appreciable. And perfunctory results at this period would cloud the whole future. My chum and I worked as never before. If we grew tired and discouraged, we were urged on by the thought that we must succeed here or go back to distasteful drudgery.

Along toward the end of the term, some of our friends who had allowed social obligations to consume valuable time, became uneasy about examinations. After Mulholland's visit, we discovered that embarrassing questions about our personal affairs ceased. Occasionally we were met on our evening walks and guided into some one of the palatial quarters; and a pleasant evening of gossip would be followed by a repast of oysters at Race Brothers on 22nd Street. Sometimes, although rarely, we took one or two of our companions to our quarters. The homemade coffee and Wisconsin cookies and doughnuts seemed to create an enthusiastic appeal that we soon estimated as genuine.

Among this group were one or two lame ducks whom we liked, and who honestly acknowledged that they needed coaching if they were to pass their examinations. They had every attribute excepting only the ability industriously to apply themselves to study. They had not acquired the knack of feeding their brains. Reluctantly we were drawn into the gap. Soon we became willing coaches, and set aside two or



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three evenings a week for this purpose, each of which naturally ended with a midnight supper at Race Brothers or in our own rooms.

IV

We were progressing in our studies, and ultimately were satisfied that we had mastered the technique of our "stunts"; but some annoyances in the way of financial stringencies brought us near to tragedy.

Our landlady was most unreasonable in her insistence that she should receive her rent in advance, on the first day of each month. We were a little slow in grasping the importance of this financial requirement. In November, after daily pressure, we paid within the first ten days. December came, and an ultimatum was issued on the first day: "Pay today or get out."

We considered that our landlady was our friend. In Wisconsin we had not been accustomed to such arbitrary methods, and attempted to express our views, which only aroused the Irish temperament the more.

"Get out by tomorrow or pay. We are not interested in what you are accustomed to. Pay or move."

Parkhurst expected a remittance from his uncle, but this might not come for several days or even weeks, and we didn't have four dollars between us. The landlady apparently meant business. Even though we deeply resented the ruthless ultimatum and the method in which it was delivered, we were not in a very favorable position to move. And where could we get for anywhere near this price other accommodations of two rooms and a red carpet?

To whom, of all of our friends, could we appeal for five dollars? For some occult reason we decided against asking our well-to-do friends in the palatial "Follansbee Block." Parkhurst thought of an Irishman by the name of Dennis Hayes, with whom we had struck up an acquaintance. Though Hayes boarded, he was apparently about as financially straitened as ourselves; but he would loan us the money if he had it, said Parkhurst. There was no time to lose. We proceeded to the college and sought out Hayes. Parkhurst asked to speak to him privately, and for seclusion took him into the museum, where, by the skeleton of big "Jumbo," he asked Hayes for a loan of five dollars. Sure enough, the story of the overdue rent, the ruthlessness of the landlady, and our state of complete insolvency, appealed to the emo-

tions of our new-found friend, and he not only consented to loan us the five dollars, but most astonishing of all, he actually had in his immediate possession a five-dollar bill.

The rent was paid promptly. We were reminded that "It would have been much more businesslike if you had paid at once. The fact that you did not pay more promptly only demonstrated that you had not intended to pay." There and then, in our minds, we took an oath that we would not remain on those premises and be subjected again to such insulting treatment, an oath that we soon forgot.

We experienced financial stringency several times during the long winter. Fortunately, it was a very mild season; there was little snow and the temperature never went below zero. We needed but little fuel, and our clothing was ample. The bodily fires were kept burning by our supplies from home, with very limited reinforcement from the grocery. Milk was but five cents a quart.

The school term was nearing its close. Our little apartment was rather popular during the several weeks before examinations. It was distracting at times, but we were ever ready to give our time to coach our friends, and there is no doubt that we benefited by the review.

Examination time came, and fortunately there were no signs of near tragedy among our new-found acquaintances. As for Parkhurst and myself, it was flattering to be placed by our associates in the class of those who had no reason to fear.

Meanwhile, spring was approaching. We must go back to our source of meager supplies and establish contacts that would give us a substantial income during the vacation period, as it was unthinkable that we should not return the next year to continue our medical studies.

Parkhurst had been promised a school in a country district where he had taught before. I had no school in prospect, but I was satisfied that I could accumulate more cash if I took off my coat and returned to manual labor, which I decided to do. My reputation as a brickmaker was well established, and Uncle George Fulmer replied that he was glad to receive my letter and to give me a job for the season.

There were few formalities necessary to dismantle our household. We stored our furnishings in the college building, under the care of the faithful janitor who promised to keep them in perfect order until we returned in the fall.

V

There was no time to waste; I must get busy at productive labor. There was tuition to pay, clothes and books to purchase, the winter board to be provided for; and the sum total would be more than I could possibly earn. Uncle George would pay me six dollars a week, my board and lodging.

Young "Dock" had come back to work with his cousins and to enjoy life in an environment of honest, God-fearing people who were full of the joy of living. Work was a necessity, and in the eyes of these honest folk no man was meaner than he who shirked his daily task. It was an outdoor life, and the men with whom I worked did not tire and were ever ready for a wholesome frolic. Their recreation was fishing, hunting, baseball, picnics, visiting, and buggy-riding with their best girls on Saturday nights and Sundays, and occasionally dancing.

One day after I had wheeled a load of dry brick up the narrow gang-plank from the yard to the kiln, I sat on the arm of the wheelbarrow and rested for a moment, when suddenly it occurred to me that it was about time for my birthday. Sure enough, it was July 13th, of 1878. I was twenty-one years of age. It was early afternoon. Certainly I ought to celebrate. Where could I go and what could I do? Soon the chain of barrows, one of which I propelled, was signalled to move on and I moved with it.

Another day, as I was busy carrying the moulds from the grinder to their repository in the broad white yard, a carriage from the near-by resort stopped at the side of the yard and several people alighted to observe the work. An audience always embarrassed me as I did not fancy being watched by a curious gallery of idle people. This particular day a young girl of unusual attractiveness took a great interest in the moulded bricks that were being deposited in long rows. I prided myself on the straightness of my rows, but I had never been openly lauded for the artistic arrangement. This young woman was unstinting in her praise. She even asked me if I would allow her to deposit and empty one of the moulds.

The situation was an awkward one, as my would-be assistant was clothed in fine raiment. She insisted upon carrying the heavy load from the grinder to the yard, and completing the whole process. She

asked me for the short leather apron that protected my thighs, and against which the mould was carried. As my apron was wet and soiled, I secured a dry one, which I was requested to place on her. She picked up the mould, staggered up out of the slippery pit, laboriously carried it the length of the yard, asked me for instructions about dumping it, placed it on its side, and then insisted that I should adjust it so that my "artistic row" would not be spoiled. This maneuver required that I stand close behind her as I guided the mould and tipped it into its place, much to the amusement of all bystanders, including her horrified family. The personality of this little "tomboy" maiden gave a genuine thrill to as many of my youthful fellow workers as could discreetly watch the performance from a distance; and it was food for many hours of dreams.

VI

During this summer I had an epoch-making experience. I had invited a young lady who had been a pupil of mine the year before to accompany me to a dinner party and dance at the "big hall" in Pipersville, a near-by hamlet. As I appeared at the young lady's mansion, the home of Farmer Bushman, I was met by my attractive little guest. She was beautifully arrayed for the party and presented me to a girl friend from St. Paul. Could I take her too? Of course I would be delighted, and we were off. The guest was very attractive, and her cosmopolitan air was rather awe-inspiring.

I was driving a nice new buggy and a fine horse that I had rented from the livery in Oconomowoc. Pipersville was on a country road about five miles west of our starting place. The drive was without incident until we reached the Pipersville bridge, over our Rock River. The gentle old horse shied at something as we approached the center of the bridge. The cause was soon revealed. We had run over what polite people called a "night kitty"; or in pure Anglo-Saxon, a skunk.

It was the most embarrassing moment, or rather the most embarrassing *hour* of my life. In those days the little animal we had disturbed was not to be mentioned by name. Our little trio ignored the name and mention of the incident, but the odor of the unmentionable something was almost suffocating. I was almost too embarrassed to say "Get ap" to the disconcerted nag. A quarter of a mile farther on we drove into a

shed opposite the "big hall." There were menacing looks from the bystanders, and upturned noses and not a few giggles followed the young ladies into the hall. As I deposited my horse, some of the more outspoken men about commented without reservation.

With the advent of my young women a new atmosphere was injected into the party which was in full swing. Though the intangible something was there, it was not so definite that anyone could with absolute certainty identify the culprits. My young ladies were definitely up-to-date from the social standpoint, and the women folks looked upon them with unstinted approval. The dance went on, as youth banished all care. Everyone's olfactory nerves were well exercised that eventful night; but the joy our little trinity got out of our evening's sport was not interfered with, or at least not interrupted. We had a midnight supper and started on the homeward journey. The incident was never mentioned as we drove along in the late moonlight, over the river and beneath the elms that bordered the beautiful country road. The imperturbability displayed by the mixed company of youngsters in the presence of natural phenomena, so well illustrated by the above incident, would be startling in this progressive age.

VII

The summer was full of the joys of wholesome work, and of innocent diversions on Sunday afternoons and evenings, including rides along the country and village roads of our lake counties in the company of charming maidens. There was only one "fly in the ointment." In some way I had to supplement my earnings sufficiently to pay my tuition and modest living expenses during the second year at medical college.

In the back of my mind, as a last resort, I held in reserve my adored uncle, Addison Carlin. I had not approached him before as he had always been generous with me in matters that appeared big to me, as his help was opportune, unexpected, and unsolicited. I shrank from asking him outright, for with all of his generosity, he might look upon me as an ungrateful, common suppliant.

After deep thought, during a noon rest period, I composed and sent him a letter. I told him of my requirements for the winter; what I expected in the way of wages for my summer's work; the clothes and few books that were essential, and, finally, by my figures I showed that

I lacked about one hundred and twenty dollars. I was careful to say that I would not require all of it at one time; it could be apportioned throughout the winter in partial payments, and I would of course give him my note, which should bear interest. I closed my letter by saying that it would be an overwhelming disappointment to me if I were unable to continue with my class at medical school; and I knew of no one who could help me if he could not.

The reply was written by Aunt Mary. A month before I was due in Chicago I was to come down to Watertown for a Saturday and Sunday and talk the entire matter through with Uncle "Ad," and he would see what could be arranged to supply my needs, over and above the money that I myself could save.

To all of us children and grandchildren Uncle "Ad" was on the man's side of the family what Aunt Mary was on the woman's side. One was a bachelor and the other a maiden lady, and both were adored and respected. Uncle "Ad" was not only a man's man, but also a lady's man. Everyone, old and young, loved him.

During the first gold rush in the Black Hills, Uncle "Ad" and his life-long chum, Florida, migrated from Montana, where they had been engaged in gold mining on a small scale, to the Black Hills. They were lucky in preëmpting a gold prospect that proved to be a very rich placer mine. They worked their property intensely, and cleaned up in a year and a half what was considered in those days a handsome fortune. In the fall of 1875 they sold out their mine, took their gold to a convenient smelter, and journeyed by way of Watertown to the United States mint in Philadelphia, where they deposited their bags of gold bricks, a large proportion of which they converted into twenty-dollar gold pieces. Uncle "Ad" returned home and invested a handsome amount in mortgages on farms about Watertown. He could not have invested to better advantage, as interest rates were high, and the security rapidly increased in value.

At the time I boarded with Grandfather Carlin and studied medicine with Dr. Spalding, Uncle "Ad" had just returned from one of his trips to Philadelphia, and joined the family circle. On his arrival he pulled out of his luggage a coarse bag, threw it on the floor before Aunt Mary, and said: "Take care of it."

It contained a number of gold bricks, in the shape of pig iron billets

that one sees corded around foundry plants, but these gold bricks were about five inches in length, an inch and a half in width, and an inch thick.

Aunt Mary demurred about accepting the responsibility for so much gold, as there was no suitable, secure receptacle in the house in which to keep it safe. Uncle "Ad" was insistent, and explained that he had distributed the balance in a couple of Watertown banks. Thereupon Aunt Mary sewed the bricks into woolen sacks and distributed the disguised treasures about the various rooms as door stops. No one in the family was to discuss the matter, and throughout the winter the gold did service in this menial way.

So Uncle "Ad," retiring and modest in his demeanor, and the last one in the world who desired to be thought unusual in any way, became traditionally known in Main Street of our rural community as the "richest man in the world." He "would never have to work again." He "was living on the interest of his money," etc., etc.

It was the man with this reputation whom I approached on my visit to Watertown, about a month before I was to return to medical school in Chicago. The morning following my arrival Uncle "Ad," who always spoke to the point, said, "Frank, let's walk downtown." As we were well on our way he blurted out, "How much money do you want?"

I told him the amount I had saved from my wages, but that I would have to use some of it for clothes and books.

"If you had fifty over and above expenditures for clothes and books, how much more would you need?" was the next question.

Though I can be radical enough when I am begging for a cause independent of my personal needs, I am and always have been conservative in money transactions pertaining to myself. At this time I was ultraconservative; and the amount that my judgment prompted seemed so prohibitive that I muttered, "I don't see how I can get on with less than a hundred dollars."

"Are you sure that will be enough?"

While I was sure that it would not be enough, I did not have the courage to say so, in view of the prospect of securing the enormous amount already named.

Uncle "Ad" appeared impatient at my obscure answer, and said nothing more of the immediate need; but he did add, "Of course you

will need more next year, and there is a probability that you may fail to graduate. And what then?"

As to the certainty of my graduation I had no doubt, and I replied with great spirit, "I will graduate all right."

We then went to Swenk's General Store, on Main Street. Uncle "Ad" asked me to help him select the material for a suit of clothes, which we did jointly, to his great satisfaction. Then he said, in a gruff voice which was entirely forced, "Pick out a suit for yourself."

In my pleasure and embarrassment I was aided by Mr. Swenk, the proprietor. I was measured and the suit was to be finished in a week.

"Swenk, pick him out a pair of shoes, some shirts, collars, and necktie, and after all of this order, throw in suspenders and some socks."

I was bewildered, and the wave of prosperity nearly turned my head. My principal difficulty was to find a means of adequately thanking Uncle "Ad." The vocabulary for expressing deep feeling was almost nil among our people—great inward yearning and outward silence. But Uncle "Ad" knew and understood that language, and I am sure he was satisfied that I had expressed my appreciation through a silence that was unmistakable. Uncle "Ad" loved to do good and to give pleasure, but the less said about it the better.

On our way home, he heaped upon me further substantial aid. "Frank," he said, "I think you will need at least one hundred and twenty-five dollars besides the fifty dollars that you expect to save. I will give you one hundred of this when you go to Chicago so that you can pay your tuition, and when you need the other twenty-five send me a dun."

Then I *did* thank him aloud, as tears dimmed my eyes. "Uncle 'Ad,' this is a loan. What can I leave with you to show what I owe you, and that some day when I am a doctor and have money, I am to pay you back?"

"Oh, that's all right, Frank. We won't talk about that."

"But I must leave you some kind of a written promise."

"All right, just give me a note without interest, dated one day after date, and then you can pay any time or never," he said, and then laughed.

On our return, I hastened to tell Aunt Mary of the wonderful things that had befallen me that morning, secured from her some notepaper,

wrote out the note for one hundred and twenty-five dollars, signed it, and presented it to Uncle "Ad."

He laughed and said, "You haven't got your money yet. Write another, undated, and leave it with Aunt Mary, and when you have received all your money she will date it and give it to me."

I could not wait until the morrow to get back to my beautiful mother, who, with all of her family cares, could not see how I was to manage. So that night and the next day, Sunday, she and my sister shared my exultation; and Elon, the carpenter, who for the time being had become a tiller of the soil, in his quiet way was glad too. On that day in 1878, the Munger farm that was washed by the beautiful river wore a smile all over its sunburnt face.

My mother, in the midst of our rejoicing, solemnly reminded me, "Frank, Uncle 'Ad' has been very good to you. Don't forget that this is a debt of honor. You must plan to pay it out of the very first money that you earn as a doctor."

I am not sure that Sister Nettie was quite in accord with this. In principle, yes; but wasn't I entitled to a little independence and pleasure in the expenditure of my own earnings?

Back to the brickyard Sunday evening, ready to start in on Monday morning with lighter heart and new joy in my eyes.

3

1878–1879. "MIDDLE" YEAR AT CHICAGO MEDICAL COLLEGE

I. Familiar Faces. II. A Visit from Uncle "Ad"—Generous Entertainment. III. A Friend in Need—Again a Schoolmaster. IV. Oak Grove—The Griffins. V. An Uncontested Draw. VI. The Haunted House.

I

THE TIME arrived for our return to Chicago. The business transactions in Watertown had been consummated. The new clothes were fitted, completed, and in my possession. They were the last word in the product of Watertown's famous tailor. The provincial boy was proud of the creation.

Parkhurst and I arrived at 26th Street and Prairie Avenue on Sunday, September 29, two days before the opening of medical school. We sought William Eisen, the old janitor with whom we had stored our household goods and furniture. He had left! No word of his whereabouts! The new janitor and curator, D. D. Rose, knew nothing about any stored goods! The room in which we had placed our belongings was empty! This was disappointment number one.

We repaired to 1133 State Street, only to find that our palatial apartment had just been rented to another tenant. Disappointment number two.

Thus our quest of the previous year had to be repeated. Living quarters must be found and equipped, a difficult and expensive task.

Fortunately we discovered a room on 25th Street, between Indiana and Prairie Avenues, one and a half blocks from the college. Alas, however, it was but one large room, which extended across the front of the main floor of a frame cottage. The running water was in a back entrance way, and one spigot supplied the entire household. No separate sleeping room, no furniture, and no red carpet.

The school sessions began, and this time we felt at home. The familiar faces were friendly ones and the new faces were material from which to select new friends. Before we knew it, we were again engaged in the interesting grind. Parkhurst and the rest of us who had kept the pace were keen for the fray. We had the "hang" of the proceedings, and were happy in our work. Our studies were becoming more practical, and we appreciated why we had been obliged to learn so many facts pertaining to the basic studies—anatomy, physiology, chemistry, materia medica. Without them we would have been lost, and with the many new things there was no time to go back. As we proceeded, it was difficult to understand how the students who had not mastered these fundamentals could hope to proceed successfully.

Our tasks were strenuous, and the study hours long. Parkhurst and I were very conscientious. He was more conventional and adhered to the exact letter of the book. We had many quarrels as we quizzed each other. His replies would be perfect. He would quiz me, and before I had finished one sentence he would yell, "Not at all. All wrong." When asked the reason, he would read the exact words from the text.

"Well, what did I say?" I would protest.

"Oh, as usual, you just made up something."

"But didn't I answer the question correctly from a sense standpoint?"

Exasperatingly, he would reply, "Oh, you think you can use better language than the author. If you don't repeat the answer correctly, how am I to know you have 'the sense' as you call it?"

Frequently, after I had successfully quizzed him for an hour, my quiz would end with his first question, and I would tell him to "go to the devil," or a similar phrase that in those days bore the same implication.

Parkhurst irritated me more than a little because of his continuous application to study. After I had exhausted my subject, and particularly myself, I would suggest a walk. He would say, "Go on and walk. I can't waste my time loafing if you can."

This troubled me. I knew that I was keeping up to the mark in my studies and that my quizzes in class were as satisfactory as his. But he was so honest and so conscientious that I felt I must be falling short without knowing it. However, I would continue the grind as long as I

could, and then go out, walk over to the lake, down Calumet Avenue to the Pullman residence at 18th Street, and then back to 25th Street on Prairie. These walks gave me great pleasure, and they were unsurpassed as uplifters of my spirits. Alone, I could dream to my heart's content.

Occasionally on Saturday nights we went to the theater. After an early supper we would walk downtown, take an early place in the line of "gallery gods" at Haverly Theater, and secure front seats in the top gallery. This, to our minds, was the highest pinnacle of bliss. Notwithstanding my meager finances, I saw Mr. and Mrs. McKee Rankin in the "Danites" a "wonderful play," at least four times. The leading lady, Mrs. Rankin, played a dual rôle—sometimes heroine and sometimes cowboy. At the climax, though she was actually in love with the principal and in her disguise of male villain unable to reveal her identity, the hero grasped her by the throat, dragged her to the edge of a dark, yawning chasm, and to the accompaniment of appropriate music from the orchestra, pointed to a rift in the clouds above the mountain where the moon was about to appear, and cried:

"Say your prayers, for in another minute, when yon moon shows her face, you will be cast into the abyss."

The victim screamed and struggled; my neighbors in the gallery yelled protest and prepared to go to her rescue and strangle her adversary; with a quick motion she rent her throat bands asunder and the would-be slayer fell back and uttered "My God!"

There was not a "gallery god" in the house who had not recognized, without this humiliating gesture of our heroine, that she was not only a woman, but the most fascinating woman in the world. We could not forgive her tormentor.

After our nights at the theater Parkhurst, who was brought up in German Watertown and liked his glass of beer, frequently led me and other members of our class to a popular basement saloon on Clark Street which served a marvelous "free lunch." I was more or less *de trop* in this place, as I did not drink beer or other intoxicating liquor. However, I soon learned that one five-cent glass of cider (which was disgustingly handed out to me by the supercilious bartender) secured for me a square meal of "hot dogs" between thick slices of rye bread, much the same as I could have purloined had I passed into my stomach

a glass of cold, foaming beer and thus have polluted my soul. However, it was fortunate that there was always a crowd, and that a dozen white-coated barmen had difficulty to satisfy the demand of the real drinkers.

II

We were troubled by unanticipated expenses. We must leave a cash deposit as against possible broken apparatus in the chemical laboratory. As we estimated the total of deposits from all of the students, the amount seemed exorbitant in the aggregate and far too much money to be lying idle in the hands of our professor of chemistry. Parkhurst and I, among others, protested. It was rather the principle than the money. But orders were orders. We were to "put up" or forego our laboratory work, which would mean loss of credit and loss of necessary and important work.

As a last resort I took my individual case to Prof. Hollister, the registrar and secretary, and frankly explained that while, as he knew, I had paid the specified tuition, I had not counted on this deposit; could he not adjust matters so that I might have access to the laboratory and not lose my work and credit? He listened with interest, and made some inquiry about the arbitrary order, regarding which the governing board apparently had not been consulted. He gave me a note to hand to the professor of chemistry, which he intimated would give me the privileges of the laboratory until such time as I could make satisfactory adjustment.

The social status of Parkhurst and myself was well established. Our rather unconventional quarters, so convenient to the college, became a rendezvous, especially for a number of well-groomed and well-fed boys who lived over in the palatial quarters of the marble-fronted "Follansbee Block" on Wabash Avenue. Some of them were on thin ice, as amusements and leisure vied successfully with the importance of proficiency in their studies. Some of them had last year's work to make up, and they were slipping in their present tasks. For our own sakes as well as theirs, tactfully we directed much of our conversation to a review of lectures. This was welcomed by them as it enabled their clever but lazy minds to obtain knowledge without looking up notes or reading books.

We realized that we were being "worked"; but they were real fellows, and our compensation was the privilege of associating with them

and enjoying the occasional "sprees" which they financed. A "good fellow," the Tabasco in the substantial salad, is an interesting companion, for he teaches one that seriousness and hard work are not the sum total of life's attractions.

To my delight, I received a letter from Uncle "Ad" which contained the good news that he would be at the Palmer House, and Parkhurst and I were to have dinner with him. In those days the Palmer House was the last word in ornateness, with its gilt, its long corridors with red carpets, its imposing dining room, and an entresol in which could gather the armies of the great, the near great, and the small, the business man and the loafer. The dining room was presided over by proud negroes, and food was served in great variety and in unstinted amounts.

Uncle "Ad" was not a stickler for form. "Glad to see you," he grunted as he saw us. "Let's go and eat. I have an appetite. Don't know about you."

He had been in the old dining room before, and the head waiter recognized him. Uncle "Ad" had lived many years in New Orleans; he loved the square-headed negroes, and they recognized in his terse sentences "their master's voice." So we were conducted to the choicest table, and to us was assigned the most attentive waiter.

"Now, boys, what do you want?"

While we were considering, Uncle "Ad" said, "George, I reckon those fine porterhouses will be about right, with all of the fixings."

It was a warm, mellow atmosphere, with beauty and wealth all about; an occasion never to be forgotten by the two hungry medical students.

"What do you say to a show afterward?"

We were willing, and on inquiry as to a "good show," we both declared for Mr. and Mrs. McKee Rankin in the "Danites."

There never had been and never again will be such beefsteaks, never so much and such welcome food, down through course after course of the menu, with apple pie *à la mode* as dessert. Then smokes for Parkhurst and Uncle "Ad." Parkhurst was a great conversationalist, and he regaled Uncle "Ad" with stories of the medical school and of our wonderful doings, some so complimentary to our individual prowess that even I could not remember. He was a good salesman.

On the side, later, Uncle "Ad," who was wisely conservative, said to me, "Parkhurst is given to exaggeration; but he is a good talker."

We sat that night at the old Haverly Theater in comfortable seats, within ten feet of our heroine and hero; and we worshipped to our hearts' content. It was a promotion—to come down from the upper gallery to the plush seats of the parquet.

Uncle "Ad" enjoyed the show, partially on his own account, but mostly on ours.

The next day we proudly introduced Uncle "Ad" to the mysteries of the medical school; and we did not overlook giant "Jumbo," the elephant, whose skeleton was on display in the museum.

This apparently casual visit of Uncle "Ad" was, I thought, really a leisurely inspection of the prospect whom he had generously backed. It was difficult for our people to anticipate that there could emanate among us anything important that was not based on hard physical labor, and this visit began to change Uncle "Ad's" viewpoint.

III

The long winter was nearing its close; the last snows were melting; warm, dry places were appearing around the angles of the windy streets; boys were beginning to play marbles; ice floes in the lake were melting away; the warmth of the sun caused us to abandon our heavy coats; the period of our grind was coming to an end.

But other matters troubled us. What were we to do during the summer months to supplement the limited advances of our backers? Parkhurst was corresponding in an effort to secure a school in an Ixonia district. He urged that I try for a certain school at Oak Grove, seventeen miles from Watertown, that would pay fairly well.

We had passed our examinations and were again carefully storing our furniture. But Parkhurst distressed me by insisting that during the last year he was "going to board, and live like a gentleman." With all of my optimism, I could not foresee any possibility of joining him in his ambitious dream, and, therefore, I humbly begged him to plan with me. He had agreed to "batch it" only until the Christmas holidays of the school year just ending; but as Christmas approached we were more broke than ever, and there was nothing to do but continue with what we had.

The day after the close of school, on March twelfth, we repaired to Watertown, the best place in which to establish our headquarters as we sought our summer jobs, he to his home, and I to my Grandfather Carlin's, where I was always most welcome.

On Parkhurst's arrival, with his reputation as a teacher, he found himself the possessor not only of the school for which he was negotiating, but also of two other schools. Without showing his "Exhibit"—his chum, Martin—he tentatively established me as the prospective teacher for the upper grades at Oak Grove. This made it necessary, of course, that I obtain a teacher's certificate for Dodge County. The superintendent was Mr. Flavin, a close friend of Parkhurst's, and an acquaintance of my grandfather's people. Within the week a late special examination was to be held at the superintendent's house, just at the edge of Watertown, and it was arranged that I should appear.

Just another of those heartbreaking occasions when I realized my lustiness; but I must succeed or be disgraced. It was two whole years nce I had prepared for a similar examination, and the prospect seemed opeless.

However, I was on hand and spent two days of misery in an attempt o pass a creditable examination. Parkhurst, as usual a good scout, with s true political mind, assured me that I would pass. Aunt Mary was nviously distressed, but in sportsmanlike fashion, helped me to keep my spirits.

The brilliant Irish superintendent was very kind to me, and reinorced my courage. I had put a half-year's study into two weeks, and ow the struggle was over.

He handed me my teacher's certificate and cordially shook hands. e was a discriminating man with great political sagacity; and he has ever been my friend.

IV

Oak Grove, an inland hamlet of about five hundred souls, lay on the ain state trail, an equal distance from Watertown and Beaver Dam, venteen miles from either, and three miles from Juneau, the nearest ilroad stop. In 1879, a hospitable hostelry of local and far-reaching me, the Oak Grove resort, was the favorite halfway point on the coun- road when we were bent on business or pleasure.

After spending a few days with my mother, father, sister, and the other children on the Munger farm on Rock River, I returned to Watertown, prepared to start for Oak Grove on Sunday morning. The county superintendent advised me to make the hotel my headquarters until I could secure a boarding place in the village that would suit my finances.

With my few belongings in my shiny satchel, I boarded a train for Juneau, where I was due to arrive at about eleven a.m. It was a crisp March morning, with spring straining at its leashes, and making great headway in its effort to burst forth. Great fleecy clouds wended their way across the blue sky.

Arrived at Juneau, I inquired at a near-by livery stable for directions to my destination, Oak Grove. "Yes, we can take you over in an hour."

"How far is it?" I asked.

"Oh, three or four miles."

Pressed for further information, the stable man answered my query and stared disappointedly after me as I started off on foot.

The walk along a country road, with soft maple trees bursting into bud and the young grass resplendent in green, was too soon ended. In the little village the state road ran north and south, and was crossed by the one I traversed. Back from the main road, on a curving driveway connected with it, was a two-story colonial structure. The broad porches on the first and second floors, supported by square wooden columns, extended across the front of the frame building which was about a hundred feet wide. On the lower floor several windows were interspersed between the two large entrance doors that hospitably beckoned, and above were a dozen or more windows with an occasional door that gave egress to the broad porch, surrounded with its projecting wooden balustrade. In the forklike space between the semi-circular entrance driveway and the public thoroughfare was a broad lawn with a dozen or more stately and majestic elms, their trunks a foot and a half in diameter, and their broad, protecting branches spreading far overhead. This spotlessly white edifice, which I viewed through a colonnade of trees as I came around the corner into the village, proved to be the hotel. It contained so much of beauty and such great prospects of comfort, that though I was overwhelmed with admiration, I was also filled with consternation at the probable rates which, I feared, would make it prohibitive even for a day or two.

I walked up to the spacious entrance. A tall, fine-looking, well-groomed gentleman of about sixty years of age received me with great cordiality. He was the proprietor and introduced himself as Mr. Griffin.

"I presume, sir, you are the new schoolmaster. I want you to know that you are a welcome guest, and I am sure that Mrs. Griffin and my daughters, who are at church, will be delighted to greet you. I will show you to your room, though Mrs. Griffin will have to approve of it later; and then, sir, you are to make yourself one of the family."

The reception was rather overwhelming, and I realized it was useless to try to meet it in kind. After I had viewed my room I decided to bolster up my courage, go straight down to the office, and have an understanding. Mr. Griffin was ever ready for conversation, and before long I had succeeded in telling him frankly of my plans. Of course I could not afford to remain in this expensive hotel. I must find a boarding place in the village. I must find room and board for not more than two dollars a week.

"Well, of course, that is below our regular rate; but I dare say you will be able to find someone who can accommodate you. But," he said, "take your time, two weeks or more if necessary, and when you find a suitable place, I suppose we will have to let you go. Meanwhile, until you find a place, we will make your rate here two dollars a week."

No man whom I had met in my experience had greater insight than did Mr. Griffin in his dealings with his countless customers and no one read me more quickly. He realized that I would not be happy so long as things were not thoroughly understood. If I had been a procrastinator, he would have sensed it and have met the situation. If I had wanted a drink of milk or a drink of whiskey, he would have sensed that too, and if he had thought it wise, he would have accommodated me. Within half an hour I was free of all embarrassment and my only perturbation now was the prospect of meeting the wife and daughters.

Soon the people of the little village could be seen straggling home from church. They were dressed in their Sunday's best, and among them were Mrs. Griffin and her two daughters. They had a distinction that set them apart from the rank and file of the villagers. Mrs. Griffin was individual in type; she was dressed in black silk, and had the bearing of a lady born. Marcia, the elder daughter, a fine appearing young lady two or three years my senior, was gracious to the young schoolmaster, but it was obvious that I was a disappointment because of my youth and lack of poise. Mary-Nell, the fifteen-year-old girl, tall and thin with flaxen hair and laughing eyes, at first glance became my sympathetic friend.

Mrs. Griffin, with her charming, motherly attitude, made me feel that I was a distinguished guest, worthy to become a member of the family. At the noonday meal I found myself at the family end of a large table. Mr. Griffin was an ideal host; he carved the chicken and the steaks, and with the aid of his elder daughter and one or two waitresses, the hotel family was abundantly and appetizingly served. On Sundays the Griffin house was invariably filled with guests who were driving through the country and planned to make this delightful hotel their resting place for the day. The son, Ed Griffin, who had a way with horses, presided over the commodious stables, a very welcome feature for the travelers of that day.

The broad, closely clipped lawn with its comfortable settees, and the trimly kept croquet grounds were the only other attractions which this rural lodge afforded. The restfulness, the cleanliness, the wholesomeness, and the comfortable home life of this hostelry which was perfectly managed by people of tact and culture, constituted the impelling charm.

The next morning, Mary-Nell and I walked east through the village, and a half mile along the main highway to my school. The teaching quarters, which I had inspected the afternoon before, comprised two one-story buildings; the larger brick building accommodated the higher grades, and the smaller wooden building at the side, the junior department.

A number of county and village children had congregated before my arrival, fully as curious to see the new "man teacher" as the new "man teacher" was to see them. I asked Mary-Nell to take me to the smaller building and introduce me to the junior teacher. This proved to be a rather painful procedure. Here was an attractive child, about seventeen years of age, making her first attempt to teach; and she had been burdened with the name of "Miss Dora Darling." Her timidity exceeded my own in the most trying days of my affliction. She blushed, mumbled something, and I was away to my own troubles.

It was a mild day, and all of the windows were thrown open. As my little band assembled, I was glad to observe that none of my pupils was

over fifteen years of age. At least I was not to be faced by embarrassing intellectual struggles with pupils of my own age and of superior educational acquirements. The older boys, it was explained, had to work in the summer, and the older girls were all teaching summer schools.

My task was congenial from the beginning. I organized the pupils into three grades, according to age, and each grade was assigned an individual task. They were to read and commit to memory the familiar literary classics, and recite them in concert. My charges were kept in tractable humor through the diversion which was created by frequent change of work.

In my capacity as principal, on one or two occasions I called at the primary department; but my visits were not a success; they were a source of great embarrassment, and I soon learned that my absence would accomplish more than my presence. In our off hours I attempted to encourage closer fellowship, but fate was against success. It was rather humiliating to me, but it was inevitable.

The first week passed very quickly. I was so comfortably situated at the beautiful hotel, I had been so completely absorbed as one of the family, and I enjoyed the luxury of my little room to the extent that I had little heart to "look about for a boarding place." After my rather strenuous winter, with its hard study and household duties, I was enjoying a well-earned rest. At nine o'clock each evening I was in my cozy room, with its large window that opened on the broad balcony, and beyond which I viewed the tops of the shading elms. While it was before Sir James Barrie's creation of "Peter Pan," right there and then, I, with many others, was aiding to personify that fascinating character.

Awakened early by the rustling leaves, I quickly arose, donned most of my clothing, and hustled down to the men's washroom, off the office on the main floor, to perform hasty ablutions; back to my room for the finishing touches of dressing, and then I was ready for a hearty breakfast. A wash bowl and pitcher of water stood in my room; but I ignored these modern conveniences and preferred the common sink, the cistern, and the pump—country style.

Reluctantly I began my search for a boarding place. A favorable opening presented itself, but I thought best to seek advice from Mrs. Griffin as to its suitableness. She was very sympathetic, and said she would consult Mr. Griffin.

The next morning she called me into the little parlor and said, "Mr. Martin, are you getting tired of us?"

This was a stunner. "Of course I am not tired of you. It is the most pleasing place I have ever been in. But you know, Mrs. Griffin, I have already imposed upon you so long, that I am ashamed."

"Well, well, don't think of that," she replied. "We all like you so much and you are so quiet in your little room, that we will be delighted if you will stay with us; and as to the payment, we will be glad to accept the amount you have expected to pay elsewhere."

The manner of this dear woman was so genuine, and her apparent desire to have me remain so convincing that I of course accepted with a promptness that left all further discussion out of the conversation. If I did not thank her adequately in words, I am sure my unconcealed delight assured her that I was overwhelmed with gratitude. To think that I was to be privileged to live for two months in that paradise, with people whom I already adored!

V

My enjoyment was uninterrupted until about a month before the close of school. Compared with near-by country schools, we had been late in making our start. Consequently, there was a general influx into our school of older pupils who had finished teaching in the vicinity. It seemed like concerted action, and I soon realized that the demands of these older teacher-pupils were going to embarrass me.

On my arrival of a Monday morning, I found eight or ten young women of my own age or older occupying the rear seats of my not too crowded room. Their air of dignity and determination rather unmanned me; but I could not show any lack of confidence. I must make my leadership apparent without overdoing it. My poise was severely tested as I endeavored to conceal my natural shyness in the presence of strange young women. Without waste of time I went from seat to seat, recorded the names of the newcomers, and asked each one to indicate the studies she desired to pursue. Physical geography, physiology, and a review of Robinson's higher arithmetic, beginning with the test problems at the end of the volume! The plot was apparent. My contract did not require me to teach these subjects, especially physiology and physical geography, as they were governed by a certificate for a higher

grade. The two subjects were easy of management, especially, of course, physiology. But the mathematics they wished to review would be a severe test of my unpreparedness, especially as they, each and every one, persisted in beginning with the "test problems at the end of the volume." This was an embarrassing situation and I was under the closest surveillance. There was not time for me to prepare or review. I thought fast and acted promptly.

I announced that we would begin a series of recitations the next morning, and assigned rather extensive tasks for review. Several pages in physical geography; several pages in physiology (with which I was thoroughly familiar); and three of the mathematical problems which were to be worked out in detail on paper by each of my students, three of whom would be assigned to transfer the problems to the blackboard and analyze the procedure from its start to the solution.

There was a general protest against the enormous assignment of physical geography and physiology, and a special protest against the plan to have the pupils work out the problems on paper and later transfer them to the blackboard.

I pointed out that they had come in late, the term was two-thirds over, the remaining time short, and I was interested to have them obtain a rapid review of the three subjects, and as far as possible complete them before school closed. Their protestations were welcome; they gave me a feeling of advantage and much needed confidence. However, those problems were going to require something besides confidence if they happened to call upon me for concrete advice. And considering the short time at my disposal it was a prohibitive task to endeavor to make a review and become master of the mathematical situation.

I repaired to my room, and by candlelight succeeded in transferring one or more of the completed problems to paper on the chance that I would manage somehow to get through my difficulties of the next day.

Not one of my pupils was prepared to present the details and the solution of the problems. Meanwhile, I was displeased with their recitations in the two other branches. I lectured them on the importance of physiology, and gave them several concrete examples of its practicability as an aid to wise and wholesome living. We had two strenuous sessions before we reached our *pièce de résistance*, and my *bête noire*. Question after question was put to me about the method of solving the

problems. But I replied that as not one of them had performed the assigned task, I felt that I should give them more time, and if within a reasonable period they had not fulfilled the assignment, I would have to insist upon a general review; meanwhile I had the three problems worked out myself, and would give them aid when the proper time came.

My plan was accepted, and though I could not be sure that I had convinced them of the genuineness of my advice, I appreciated that I still had the advantage in the contest.

I reviewed with great energy that textbook of arithmetic in order to be able to give a satisfactory demonstration of the problems. I was in a precarious position, but I could not face embarrassment in that town by admitting that these young women had defeated me.

By degrees I saw a change in attitude. The work that I assigned required long hours of study. Each day we discussed the problems, and when I feared that my conversation was no longer convincing, I placed one of the problems on the board, asked them to study it, and then, to their amazement, erased it. This was a wholesome gesture. Within two weeks I had caught up sufficiently in my review to be able to discuss the problems frankly. The contest was then allowed to subside into an uncontested draw. Our relations became cordial, and a mutual respect and friendship was developing as the school term came to its end.

I was genuinely sorry. My summer had brought me in contact with people of refinement, and I had the satisfaction of knowing that they were my friends. I may have realized it then, but in retrospect it is very evident that I was something of a curiosity, because of my inexperience in the ways of life, my original methods, my unsuppressed energy, my love of sport and fun, and my irresistible desire to hector my associates with petty annoyances. The spontaneous friendship between Mary-Nell and myself ripened into a strong bond of comradeship that is a lasting memory to the senior member of the pact.

In all of the innocent games and sports, picnics and occasional excursions to the lake resorts near by, I was an enthusiastic member of the Griffin family party. Mr. Fish, a bachelor guest at the hotel and a persistent admirer of Miss Marcia, was also included as a member of the family and entered into the social plans. He was several years my senior, and so far as I could judge, had an income that modestly sup-

ported him without visible evidence of work. He treated me, the newest acquisition to the family, with cordiality, and apparently without resentment, probably because I was delighted to become the fourth member of what would otherwise have been a trio.

VI

As I was preparing to return to the cold hospitality of the world, a man without a job, something happened that often falls to the lot of the man who really wants employment—I was drafted for a real adventure.

Every small town has not only a gossiping "Main Street," but as a rule a family, an individual, or a situation around which to weave a mystery which is discussed in stage whispers, and causes wild-eyed interest among the gullible of the community. Oak Grove had its haunted house, through the halls and rooms of which lights were known to flit at unseemly hours, and from which unwonted sounds emanated in the small, dead hours of night. The occupant of the house, who appeared upon the streets at irregular intervals, was a man of distinctive appearance; he wore dress clothes of the Civil War period, and paid little heed to his fellow citizens as he walked along and stamped his heavy cane. Some of the children hustled off the street as he passed by, and called after him from behind trees and other safe hiding places. If he heeded these slights or intended insults, no one was aware of it.

In July of 1879, Mr. Peacock, the master of the haunted house, took to his bed as the town doctor had pronounced him a sick man. His frail wife was his only companion. His son, who was in business in Milwaukee, was called to his bedside. Someone must be found to look after the sick father and the household affairs. Under the circumstances, this would be difficult. But the town doctor bethought himself of the medical student who had been teaching the district school.

Young Mr. Peacock, a very charming gentleman with the metropolitan air of a substantial business man, called at the hotel and asked me if I would come over to his father's house and become his companion for a few weeks, until they could determine the course of events.

I promptly agreed to accept the assignment, as there was nothing about the appearance or actions of the son to suggest that he was the descendant of the "wizard of the haunted house." The large, two-winged structure was a pleasant home, furnished with fine old furniture.

The ground floor contained a large library, a comfortable living room, a corner sitting room, and a large kitchen. The corner room, off the living room and library, was occupied by the sick man. Its two windows opened on a front porch, its north door into the library, its east door into the living room, and a south door onto a covered entrance porch. The upper portion of the building was used for sleeping quarters.

The house was cared for by a strong, uncommunicative German woman who came in from somewhere in the country by the day. Mrs. Peacock, a delicate woman with a charming personality, was devoted to her husband. The very atmosphere of the house contradicted the impression that was abroad in the "Main Street" of the little village.

Mr. Griffin and his family, while not intimate with these neighbors, spoke very highly of them, and smiled at the gossip of the town regarding the haunted house. My patient had been a very successful man of affairs, was highly educated, lived in retirement with his devoted wife and his fine library, and was apparently entirely ignorant of the reputation that his exclusiveness, his peculiar dress, and his habits had created; anyway he was absolutely indifferent to it.

My first meeting with the "wizard of the haunted house" was not too reassuring. He had a mind of his own, and he did not fail to exercise it in his retirement. He was definitely opposed to surveillance of any kind. Over his son's shoulders he definitely told me that my services were not needed.

The son said, with calm persistency, "Father, I have asked this young man to remain here for a few days while you are incapacitated, in order to aid Mother."

"To aid Mother" was the touch that caused the patient's sharp black eyes to glare ferociously from beneath his spare gray locks, and then to smile acquiescence.

As we stepped out of the room, the son said to me, "Father was a strong, intellectual giant in his day, but he has become irascible in the last few years. He is devoted to my mother, and has the biggest heart in the world. Don't pay any attention to his irritability, see that he has every care, control him by persuasion; he cannot be driven."

The devotion of Mr. Peacock to his wife was exceeded only by her influence over him and her worshipful attention. The giant of strong character was Cyrano de Bergerac making his last stand.

Some of the mysteries of the household were soon solved. In spite of my close surveillance (I slept on a couch at the patient's door), in his frailty he would leave his bed in the dead of night, pick up the night candle, go to his library in the adjoining room, bring back to his bed a large volume or two, and there, bolt upright, with his spectacles on the end of his nose, peruse the books. Occasionally I would find him crouched on a stool in the corner, bent over some obscure book.

By neighborhood gossip, he was reputed to have had great wealth. It was claimed that his gold was concealed in a large tin box, the key of which hung from a string about his neck, like a scapular; that this tin box was brought forth occasionally and its gold contents counted. As the shades at the windows were not drawn, the light of his candle could be seen at night by the passer-by in the street.

There was such a tin box. On one or two occasions, in the late hours of the night, I found him sitting up in bed with it opened on his knees. He was reading something which he had extracted from it, apparently a manuscript or letter. But I never saw any gold. In fact, my visits to him at these times were most unwelcome, and I was definitely told to attend to my own business.

Day by day he grew weaker and his son came each week-end.

As I ventured forth into the village I was looked upon with much curiosity. I, too, had received the taint of the haunted house. But there was always a hearty welcome for me at the Griffins'. They understood, and were amused by the general attitude. Many of the people of the little town were entirely unsympathetic to the sinister reputation accorded to this secluded home with its cultured family.

At last the sands of time ran out. The old hero had made his last protest and his defense was down. His dear wife sat beside him. They were like lovers. All was peace. Suddenly he clutched his chest, choked, and fell back upon the pillow.

She looked up with tears in her eyes, smiled and said, "How wonderful to go that way." She had expected that the last would be a struggle. She knew that her man, if challenged by death, would not yield without a fight. No challenge came. Death stole upon him unawares.

The burial was postponed for several days, as relatives from a distance were expected. It was in the heat of summer. There were meager undertaking facilities. We must manage somehow, so I had to assume

new responsibilities. There was but one individual to whom I could turn during those four days of waiting—Mr. Fish, my friend, who lived at the Griffins'.

The improvised bier consisted of two broad boards, cleated together, which rested on two crude sawhorses. Mr. Peacock was laid out in the room in which he had died. Embalming was impracticable. An abundance of ice was procurable and in quantities it was placed in the cellar, wrapped in heavy blankets. Heterogeneous receptacles containing chopped ice and salt were placed about the remains and the contents of the receptacles replenished frequently. It was difficult to get anyone in that village to volunteer for this necessary rite. The job was mine, with the able assistance of Mr. Fish.

The first night passed without incident. Every hour during the day and the long night we had to inspect our charge and replenish the ice and salt. It was not a pleasant task, and it was beginning to get on my nerves. For several weeks I had been unusually vigilant. It was my first case, and it had ended in death. And one cannot remain entirely uninfluenced by the superstitions of those about.

The second night Mr. Fish and I were kept awake by the howling of some bloodhounds, the pets of an incorrigible foreign-born citizen who lived on a near-by hill. The hounds were a general nuisance, and in some way became attracted to our neighborhood, prowled about the house, and from time to time emitted ear-piercing howls. My couch was in the living room under two screened windows. Suddenly I was awakened by a slight noise, the screen of one of the windows was pushed in on me, and a heavy body was climbing into the window. I jumped up in my terror, pushed the screen back in place, and to my horror discovered that the struggling body was one of the bloodhounds which fell back out of the window, and was off with one of his unearthly howls.

It goes without saying that this thoroughly unnerved me, and I was ready to abandon my job. Mr. Fish, who had been awakened by the commotion, came in and with his ever-ready humor helped me to see the amusing side of the adventure. But I noticed that he lighted the large reading lamp in the library, and we sat up and told stories and entertained one another until morning. I am sure that scrutiny the next morning would have revealed us both pale and haggard in the light of a welcome sunrise.

The night before the funeral, as our adventure was nearing its close, unpleasant premonitions were in the atmosphere. Members of the family had begun to assemble. The sleeping rooms on the second floor were occupied, and the overflow guests were cared for at the hotel. Mr. Fish and I, thoroughly frazzled by our long and unpleasant vigil, had prepared all things for the night. With startling noises about, and unusual creakings, we had awakened once to perform our routine duties, and afterward had fallen into fitful slumber.

Suddenly in the wee small hours I was aroused by what seemed a terrific explosion and I found myself in the middle of the floor. The lamp that had been lighted and placed in the room, as a reassuring companion, was extinguished. A door slammed in the room where the corpse was supposed to be resting. I rushed forward and opened it, only to find that the door to the south, leading to the little outside vestibule, was open. With caution I approached the vestibule and to my horror in the obscure light I saw Mr. Fish lying prone on the floor, apparently dead. I caught him under the arms and dragged him into the death chamber. Just at that moment, another crash occurred just back of me. I turned suddenly toward the corpse, and by the dim light of the candle I saw to my consternation that the dead man was in a half-standing position, his arms waving, his eyes glaring, and the receptacles falling about him.

This was the last straw. I rushed from the room to the stairs and cried in terror, "Come quick, something has happened."

I was too unnerved to expedite my return to the room where I had left my companion. It flashed through my mind that undoubtedly robbers had come for the box of gold, Mr. Fish had interfered and had been shot, the shot had aroused me, and in my unbalanced condition, I was convinced that Mr. Peacock's miraculous resurrection was a vigorous personal protest.

Slowly I lighted the library lamp and prepared to do my duty—as soon as someone came from the rooms above to lend me much needed moral support. There was a groan from the death chamber, apparently from Mr. Fish. With the lamp held high over my head, I cautiously pushed open the door. Among the débris of ice and salt, and tin and wooden receptacles, I found my friend sitting in a dazed attitude at the foot of the bier, contemplating his surroundings. I assisted him from

the room, placed him upon my couch, and rapidly looked him over for signs of blood from the would-be assassin's bullet.

At this moment the son appeared, and with my greater interest in the supernatural than in the natural, I led the way to his father's death chamber.

There was general confusion, and excepting the fact that the corpse was somewhat disarrayed, he was lying peaceably on his couch, still in death. The refrigerating devices were much disarranged and their contents scattered over the floor. It was inexplicable. The son had been aroused by a shot or an explosion, which was followed by a second crash; and then came my summons for help.

We examined Mr. Fish. He was calm, and assured us that nothing was wrong. He had fainted in the vestibule immediately after the explosion; he was all right, and proceeded with us to the adjoining room to solve the mystery. The two boards rested on the supporting sawhorses, and my old friend was calm and peaceful. His hands were free of the bandage, but lay stiff across his chest. His eyes were closed, but the bandage under his chin was loose and his mouth slightly ajar.

I was too practical in my reckoning to be able to accept a supernatural explanation of the horrible phenomena that I was sure I had witnessed. What had caused the explosion? What had caused the second crash? What had caused the corpse to stand upright and to enact his gruesome protest? Did this latter thing really happen, or had I lost my sanity? But the ice receptacles had been scattered, and the bands of the hands and chin had been loosed!

A clue to the situation dawned upon me. The first explosion could be explained by a falling meteor, or the firing of a gun by some marauders. The second crash undoubtedly was caused as a portion of the ice packs slipped from their places. I carefully examined the bier and its surroundings. The sawhorse that supported the lower end of the bier, instead of being placed at the extreme end, was several feet from the end of the boards, fully a third too close to the other sawhorse. The sheets which covered the bier had concealed this error. Ice packs were first placed around the head and shoulders of the corpse and afterwards at the extremities. The second crash had been caused by the slipping downward of the upper receptacles. As I dragged Mr. Fish into the death chamber, more of these packs fell to the floor; the heavy tubs

of ice at the foot outweighed the upper end which rose into the air, and with it the corpse which swayed forward and back; as the lower receptacles in their turn slipped off, the bier was permitted to fall into its original position. I then offered my explanation of the phenomena.

The next day there was much discussion of an explosion which had awakened the whole neighborhood. To the gullible, it was just another unexplainable act in the history of the haunted house. The more rational reasoned that it was caused by the falling of an unusually large meteor that was found buried in an adjacent field.

I remained until after the funeral. Before I left, the son read to me several love letters that had been exchanged fifty years before between our hero and his bride to be; and these constituted the contents of the mysterious tin box.

4

1879–1880. SENIOR YEAR AT MEDICAL COLLEGE

I. "Batching It" Again. II. First Obstetrical Case. III. Competitive Examination for Interneships.

I

We were at the beginning of our senior year. While we had hoped that our finances would allow us to forego the drudgery of "batching," we found ourselves in our old quarters on 25th Street, and with the household equipment we had used the year before. The school year began on Tuesday, September 30, 1879.

With my savings of the summer, the one hundred and fifty dollars additional that had been loaned to me by Uncle "Ad," and the usual abundant food supply prepared by my home folks to which my dear mother had added not a few delicacies of jellies, jams, and preserves prepared by her own hands, we were neither richer nor poorer than we had been. Parkhurst had been equally fortunate, but happily his success in raising funds was not great enough to justify him in abandoning me.

During this year of study we enjoyed the satisfaction and benefits of the previous two years of hard, honest work in the fundamentals. Practical application was to be made of the knowledge gained, and those of us who had been studious were happy in our new work.

We were pupils of eminent practitioners of wide reputation. Nathan S. Davis and H. A. Johnson were professors of the principles and practice of medicine, and of clinical medicine; Edmund Andrews and Ralph N. Isham of the principles and practice of surgery, and clinical surgery; Edward O. F. Roler of obstetrics and diseases of children; James S. Jewell of nervous and mental diseases; Samuel J. Jones of ophthalmology and otology; John H. Hollister of general pathology and patho-

logical anatomy; Robert L. Rea of anatomy; and Edward W. Jenks of medical and surgical diseases of women, and of clinical gynecology.

II

The senior medical students were paired off and assigned to the obstetrical service at Mercy Hospital where under the direction of the chief interne each pair of students cared for a patient throughout the course of her confinement.

At two o'clock one morning, as I lay asleep at my rooming house, came the call to "hurry at once to Mercy Hospital for a confinement case."

In a jiffy I was ringing the night bell of Mercy Hospital. Faithful Sister Raphael greeted me and directed me to a private room just above the main entrance of the old hospital on Calumet Avenue.

Here I found a strong young woman, anxious but apparently with plenty of courage, wrestling with agonizing preliminary pains. The senior interne on this first case was Robert Hall Babcock, a young man who had been blind since his twelfth year, but who had educated himself and graduated from the Chicago Medical College in 1878.

The confinement case was a normal one. We remained in charge until seven o'clock, when a fine child was born. Babcock was six years my senior, and he was very active and most efficient in his part of the work. No one who was not aware of his loss of vision would have gained any intimation of his affliction through his handling of this case. From the time of his introduction to the patient, throughout his careful inquiry and instructions as to the arrangement of the room, and during the five hours devoted to the details of this confinement, there was neither hesitation in his procedures nor misdirected effort; and his technique was without fault.

The birth and aftercare accomplished, the baby, pink and strong, was brought to its mother. This is the time in a healthy mother's life when she is most happy and thankful, and when she lavishes praise upon her doctors and her nurses, who really are of so little actual importance in this natural miracle. The proud mother drew back the bedclothes and asked Babcock if he had ever seen a finer baby.

"No," he said, "it is beautiful. Its eyes are like its mother's." And he mother did not realize that the budding but successful obstetrician

who had been conducting this ordeal for her was blind, and that he was destined to become one of the most noted heart specialists of his time.

An attendant on this important case, who nonchalantly dropped in occasionally during the night, was Roswell Park, who later went to Buffalo, became a surgeon of international reputation, and was one of the doctors called into consultation at the time of McKinley's assassination.

In this, our third year, we were happy in the companionships that had been formed, that had crystallized into genuine friendships, and around which were woven fond memories.

Parkhurst and I held conferences with our fellow students in the evenings, usually after the conventional bedtime. Key questions which were liable to come up during the course of the much-dreaded final examinations were put to our students, and then answered by ourselves. These young men, with their perfected social instincts, were apt in grasping the essential bit of information if it were imparted to them in a casual conversation. It was the drudgery of reading that drove them to despair. Some of our pupils were making up studies of the previous years, and these we aided by establishing contacts for them with their teachers so that they would receive private examinations, in which they were usually successful. The examination passed, a new notch was hitched in the pupil's belt, promptly forgotten, and he was on to the next. On the final day, while there was much anxiety round and about the bulletin board, all but one of our uncertain group succeeded in getting through.

We were in medical school during the days when the "art of medicine" was practiced to the exclusion of the "science of medicine"; we were approaching the development of the "science," which was more and more to share with the "art"; and then the time arrived when we began to speak of the "science and art of practice" rather than the "art" or the "art and science of practice."

The microscope was no longer looked upon as a curiosity and an unnecessary adjunct in the practice of medicine. German pathology was the fashion, and a short course in Austria or Germany was considered a very necessary finishing touch for the future practitioner and teacher of medicine. Bacteriology was an important study. Pasteur had ignited the great beacon light and shown the benefit of practical re-

search. Lister's work had been introduced thirteen years before, its truth had been accepted in Germany and France, and the prophet was beginning to receive recognition in his own country. The germ theory of disease was in the acute controversial stage, but fast gaining favor among the intellectuals of our profession. Darwinism was in the hopper of bitter controversy. Never were the students of medicine more stimulated or more distracted by new theories and new facts.

Prof. Davis did not accept the "germ theory" of disease, and this had a great influence on the plastic minds of his worshipful students. On the other hand, Prof. Andrews began an active experiment with antiseptics to keep the harmful bacteria from wounds.

We were under the strict discipline of earnest teachers who were able to satisfy their patients by careful attention to personal details—the "art" of medicine; teachers who depended upon carefully studied drugs, which were given with punctilious direction as to dosage and time of administration. The temperature of the body was judged by observing the moisture or dryness of the skin, by the respiration, the appearance of the pupils, and by some occult, near-sixth sense that every experienced practitioner seemed to possess. The clinical thermometer was a new-fangled curiosity instead of an everyday scientific necessity.

III

Toward the close of the last term of school there was much interest in competitive examinations for interneships, especially in the great Cook County Hospital, to which only two of the medical schools in Chicago were eligible to send candidates—Chicago Medical College; and our rival, Rush Medical College.

On the occasion of the spring examinations in 1880, the two senior classes congregated in the large amphitheater of the County Hospital to witness the contest. Each school had its favorites, and it was a matter of much importance for a school to win a majority of the twenty-four positions. The picked students from each school were ushered into the large arena, and assigned seats in the semi-circle of chairs. As our favorite candidates entered, they were given much friendly advice, and the personal joshing no doubt helped to relieve the strain.

The professors filed in ponderously and received a genuine ovation

from the assembled sight-seers. The spectacular and eminent professor of surgery at Rush Medical College, Moses Gunn, with his long curls, his bushy side whiskers and mustache, and his gold-rimmed eyeglasses secured by a fancy gold chain, was the observed and admired of all. Our own professor of surgery, Ralph N. Isham, had an air of dignity and importance, and we felt sure he would defend our interests. Prof. J. Adams Allen of Rush and Prof. Hollister of our institution represented medicine. Several other distinguished teachers from each school were members of the examining board. It was an oral contest, and each candidate was quizzed in turn by each examiner, a formidable array which proved an ordeal for the candidates.

Though there were two or three contestants whom we learned to know afterwards, among them Lewis Linn McArthur, there was but one who impressed himself upon me, and he was not a graduate of our school. Many of us learned of his existence for the first time. The replies of this tall, slim young Irishman, John Benjamin Murphy, aroused the keen interest of each and every one of his observers. His responses were quick, decisive, and to the best of our knowledge, absolutely correct. Once or twice the questioner attempted to trip him up or confuse him, but his "comebacks" were so prompt and so apt that the candidate soon gained the sympathy and applause of the audience. It was remarkable that the results of the examination coincided almost exactly with the consensus of opinion of the divided audience.

It was soon learned that Parkhurst and I were to be candidates for the two available interneships in Mercy Hospital, and it was generally conceded that we would be successful, and that it was merely a competition for first or second place. Anticipating our success, it was agreed that I should begin immediate residence at Mercy Hospital and serve one year, and that Parkhurst should serve the term that commenced six months later.

A number of our associates were on hand to learn the result of the contest, which was to be conducted behind closed doors. I was the first to enter the examining room. Prof. Hollister occupied the chair, and he, Quine, Hatfield, Jones, Roler, and Andrews each quizzed me for five minutes. I was fairly well satisfied with my conduct. I returned to the waiting room and Parkhurst entered the examining room. The group of observers asked me about the questions that had been put to

me, and as I took it for granted that there were no other contestants present, I discussed the questions freely, and also my replies. Then there was discussion as to whether or not my answers were correct.

After Parkhurst had rejoined us, Prof. Quine appeared and asked if there were any other candidates. To the amazement of all, Lorenzo T. Potter, one of our friends and fellow students, stepped forward and said: "Professor Quine, I believe that I will make a try for it myself."

I took Parkhurst aside and asked him about his examination, and found to my discomfort that the questions had been identical. A tragedy was in store for one of us. Potter had had the benefit of the discussion of the questions and answers, and as he had been among those whom we had coached, we both realized that under these favorable circumstances he would make a surprisingly good impression on the examining committee. As the third candidate finished, we waited but a few minutes for the announcement. The successful candidates were Potter first, Martin second, Parkhurst third. The dark horse received congratulations on having gained first place and I on having secured second place. Parkhurst, poor chap, was commiserated with and reminded that after all Potter might not accept, as it was only as an afterthought that he had taken the examination. Everyone present who knew the facts realized that the conversation in the anteroom had proved fatal to Parkhurst's chances, and that he, on the merits of scholarship, should rightfully have secured one of the two interneships.

It was within two or three weeks of graduation. Since Potter intended to accept the allotted position, my plans were thrown awry. Six long months were before me during which I must obtain a means of livelihood, find a place to live, and manage in some way to pay my fare back to the source of supplies in Wisconsin.

Parkhurst, on the other hand, had a place waiting for him as an associate of his uncle, Dr. Harvey Parkhurst, a successful practitioner at Danvers, Illinois. With failure to obtain the interneship, he was at liberty to accept this attractive arrangement immediately. In the meantime, we had both strained our credit to the very limit and it seemed a real hardship and a prohibitive expense to remain over in Chicago from the Friday which ended the school term until the following Tuesday, March 30, to receive the much coveted diplomas, which would confirm the conferring of the degree of M.D.

5

1880. THE DOCTOR RECEIVES HIS DEGREE OF "M.D."

I. Utter Darkness. II. And Dawn. III. Graduation, March 30, 1880. IV. A Friend—Edmund Andrews. V. A Course in Reading. VI. My First Political Convention. VII. Post-Graduate Course in Literature. VIII. Affluence. IX. Much Needed Vacation.

I

I SCURRIED around Chicago among my old teachers, Dr. D. A. K. Steele, Dr. Roler, and others, during the few days that remained; but no clerkship or assistantship that would provide even sleeping quarters was available. Teaching positions were not to be had as all assignments were already made. My inexperience, and the condition of the employment market, brought me up against a stone wall. Only one course lay open to me—back to manual labor in the brickyard. This was the hopeless prospect that confronted me on the Saturday night preceding my graduation.

However, there was much rejoicing all about. Friends and relatives were arriving on every train to be present when the prosperous young men whom we had coached were to graduate into a great profession. I dreaded to mention finances to Parkhurst because he was sorely disappointed at the interneship upset, and I knew that he had barely enough money to take him to Danvers, Illinois. However, I did bring up the subject. Frankly and definitely Parkhurst stated that unless he received a money order from his uncle before Tuesday he would be without a cent, and he had asked for barely enough to defray his expenses to his uncle's home. He did not do me the kindness of asking about my status. No doubt he realized that it was unnecessary, as I never had a surplus. But I told him that I was "broke" and that I did not know how I was to remain over for graduation; and if I did manage to remain, by hook

or by crook, I would have to walk home. I begged him for a loan, but he told me he positively could not do it.

It was Saturday night. All of the others of our graduating class were celebrating. We deliberated, and wondered if we could not afford twenty-five cents each for the theater. For good reason, we decided against such extravagance. Instead, we took a long walk—over to the lake, down Calumet Avenue to 16th Street, over 16th Street to Michigan Avenue. It was a beautiful evening. The continuous row of gas lights along Michigan Avenue attracted us and we went north, down by Park Row, past the homes of the millionaires on the Michigan Avenue lake front, to the old Exposition Building, and then over to the inevitable rendezvous of all homeless creatures—the brilliant corridor of the Palmer House. From the Palmer House we veered over toward City Hall Square, and finally Parkhurst dashed into a basement saloon on Clark Street, ordered a glass of beer, and reinforced himself at the abundantly laden free-lunch table—an example that I boldly followed, although I did not expend the nickel for foaming beer. Then in the crowd of after-theater patrons we sought a table and sat down to enjoy the sight and human companionship.

In a short time we espied several of our companions accompanied by strangers, working their way to the long bar from the farther end of the room. Several of them saw us, came over, greeted us enthusiastically, and then were on their way.

Parkhurst said, "Let's duck; this is no place for us. They are out for a night of it." We "ducked" and wended our way back to our sleeping quarters on 25th Street. No doubt we were a little resentful of the fates that were against us on this Saturday night before our graduation. But, truly, "It is always darkest just before dawn."

We retired to our double bed, thoroughly tired out after the long walk. It was one of the few nights that I could not lose myself in sleep. Over and over again I reviewed the situation carefully, and at three o'clock in the morning I made a decision: First, I would remain for graduation; and, second, if worse came to worst on Wednesday morning I would hike back to Ixonia, Wisconsin, one hundred and twenty-five miles away. For good reason the question of finances would have to be ignored.

As I watched the dawn of another March day, with the sun's rays

sifting into our palatial quarters and lighting up articles of virtu—the cook stove, the snow-white washing on the line, the study table with its grinning skull, and the scientific library—I fell into a restless sleep.

There was the storming of a castle. The enemy, with steel breastplates and helmets, spears in hand, were making another charge, and their heads, in spite of powerful resistance, were appearing above the parapets, and the din was terrific! What was it all about? Parkhurst was shaking me and ordering me to "kill that tramp who is pounding on our bedroom door."

I jumped up and demanded, "Who is there?"

"It is I, J. C. Cook. Say, what's the matter? Are you all dead? I've been pounding for half an hour. Martin, I want you to come with me right away. Put on your things and come now, I've got a job for you."

"A job?" My toilet was made while our guest waited at the outer gate. In precisely two minutes I appeared with practically all of my wardrobe on my back, ready to go anywhere. What could have brought so imperative a demand at six o'clock on a Sunday morning in March?

II

"Cook, tell me. What is it all about? Some emergency?"

"Well it is an emergency so far as I am concerned. For several months I have been on night duty, nursing a fine old chap over on Calumet Avenue. I have been trying to get out of it for a month, during our examinations and graduation. Until yesterday he and his wife would not hear of it. Then I appealed to Professor Andrews, who is the attending surgeon. He went to the wife and the patient, told them I would have to be relieved, and recommended you. He gave you a great send-off. Said you would be available for six months, and could take full charge of the case. Tried to get you last evening. I am getting out after breakfast."

Cook was one of our classmates—a rough diamond, an excellent student, and one whom we all respected. He was overworked, but his good nature had kept him on his job. He was thoroughly sick of it, and besides he expected to return home immediately following graduation on Tuesday.

We hurried along and soon approached a large, double, stone-front

house in the aristocratic quarter at 2220 Calumet Avenue. I was in a panic. "Will I be acceptable?"

"Of course. You will be welcome. You're just the man for the place."

"But what about pay? What about board and lodging?"

"You will live right there, eat right there, and sleep, what little time you will have, right there. Your pay will be five dollars a day."

This last statement fairly took my breath away. Five dollars a day! And the maximum pay I had ever received, even in harvest time, was two dollars a day!

"But, Cook," I urged, "must I tell them what my wage is to be? Won't they think that is too much and get someone else?"

"Oh Lord, man, they won't ask you anything about it. At the end of two weeks they will just pay you. All you have got to do is to do your work—and I will take a chance on your doing that."

We were at the door. He took out a latch key and let himself into the spacious hallway.

"Here, you had better take this before I go off with it in my pocket."

It was a strange distinction to have the key to the front door of a millionaire's home on Calumet Avenue turned over to me thus unceremoniously.

Cook was thoroughly at home in the William Hickling residence. He led me up the long flight of carpeted stairs to the second floor. It was quite early on a Sunday morning for people in this aristocratic community to be about. But this did not apply to the lady of this household, Mrs. Hickling, who always kept close watch of the details of her home. Robed in her dressing gown, she welcomed us at the top of the stairs, eager to inspect the new incumbent.

Honest Cook introduced me as the student whom he had discussed with her. "One who won't run away for at least six months."

She bowed acknowledgment and scrutinized me until I became embarrassed, although I hoped she would not discover my uneasiness. I felt that she did not like me. She was a woman of about forty years of age, of medium height, lean and angular in build, with sharp facial features, a strong jaw, a somewhat forbidding mouth, piercing black eyes, dark hair, a voice that was rather harsh, and a "bossy" personality. She spoke decisively, almost ruthlessly, I thought. She had anything but a reassuring air. However, I noticed that Cook paid little

heed. She preceded us into a spacious central bedroom which faced south overlooking a garden.

Here on a broad bed lay my future patient. He was a charming apparition. An attractive gentleman about sixty years of age, with iron-gray hair, closely cropped whiskers, a winning smile, and large laughing blue-gray eyes. He was waiting, apparently like a prisoner anxious to meet the new guard. He was graciousness itself. His wife, observing from the foot of the bed, announced me as "the new man."

He took my hand, patted it gently, greeted me cordially, repeated my name, and warmed my heart and pride by saying, "Doctor, I am glad you could come during these busy hours of graduation. I am sure we will get on famously." He was the first one seriously to give me that honorable title, as I was not graduating until Tuesday.

I was in love with this great man on the instant and I am sure he liked me. My shyness was dispelled at once. It was apparent even to me in my inexperience that I was dealing with an unusual character among men of affairs.

Cook suggested that Mrs. Hickling leave the room, as he must tell me of my patient and show me my job. Mr. Hickling had "bladder trouble," and catheterization was necessary every four to five hours, night and day. (Now an operation for prostatic hypertrophy would be suggested.) It was rushing proceedings, as I had never performed the delicate task which lay before me. With a few words of explanation, Cook handed the catheter to me. Theoretically I knew the underlying principles of the procedure, and to my relief I accomplished it without a hitch.

My patient said, "Why, Cook, Dr. Martin is an old hand at this." And to me, "That was fine."

Cook announced that he must catch a train to his home in the country, and left precipitately. I remained with my two new-found friends.

Mrs. Hickling returned, and in a business-like way outlined my routine: I was to remain as semi-companion to her husband, and serve him at intervals as had been indicated. I was to occupy a cot in the patient's room at night. A bathroom adjoined the room we occupied. I was to have my meals in the dining room below. A servant could be called by touching the indicator on the wall. In a word I had been installed!

I excused myself from breakfast. I was too anxious to tell the good news to my companion of three years, Parkhurst, and besides without a little prayerful preparation I could not face the ordeal of a breakfast alone with Mrs. Hickling. I indicated that "breakfast was awaiting me at my rooms, and I would return within the hour." Mrs. Hickling smiled and acquiesced—undoubtedly as glad to be relieved of the company of the bashful youth as the youth was glad of the reprieve.

Parkhurst, the dear fellow, was delighted. A great personal financial problem which he could not solve had passed from his generous shoulders. We broke up our household within two minutes after we had partaken of our scrumptious "late breakfast." His few belongings he would take in his boxes. Mine, if there were any of value, would be shipped to my home, by express C.O.D., and the cook stove and cooking utensils would be left where they were as a bonus to our landlord. Within two days we would graduate, and the late afternoon train would take Parkhurst to his uncle's home in Danvers, where he would start medical practice the next week. Meanwhile, I would enter immediately on my life's work in the palatial residence on Calumet Avenue, Chicago. In fifteen minutes I was transporting my wardrobe, on foot, to my new home.

III

It was March 30, 1880. On this day I was to graduate and receive my degree of Doctor of Medicine. Two days before I had entered into service or work which for the first time would bring remuneration for an activity that did not require physical labor. Excepting for the few interruptions when my patient needed me, I had spent the night rejoicing, congratulating myself. Veritably I was in the seventh heaven, and building visions of a life of blissful usefulness.

At two o'clock I would meet the group of good fellows who had faithfully worked with me and planned for this day. I had gained consent from my patient to be absent for those important two hours. The ceremony was to be at Plymouth Church, 26th Street and Michigan Avenue. I was surprised to see in the chancel of the church many bunches of flowers, tied with ribbons and tagged; but they had no personal interest for me.

There was a large audience, mostly women relatives. Many of the boys were all dressed up for the occasion. We congregated in the rear of the church as the organ played. The members of the faculty straggled onto the platform—Professors Davis, Johnson, Andrews, Hollister, Jenks, Roler, Quine, Hatfield, Rea, Isham, Merriman, Jones, Jewell, Gradle, Park, Lester Curtis, and several others.

After the faculty members were seated, the organ struck up a stirring march. Two by two, the graduating class marched down the center aisle of the church. Parkhurst and I fell into line. A lump came into my throat as I comprehended the beauty, the solemnity, and the impressiveness of it all. How I wished that my dear ones could have been there to witness my distinction! For a few minutes I forgot my important and joyful new job. I was about to become a Doctor!

We were seated in the front pews. There was a prayer, and an address by our new professor of anatomy, R. L. Rea. The diplomas were presented and the degrees conferred by the dean of the faculty, Dr. Davis. Then in response to a prearranged signal three members of our class, one of whom was Potter in a brand-new Prince Albert coat (there were no academic gowns to unify the graduates), proceeded to distribute the bouquets. Parkhurst and I were among quite a number who did not receive any flowers.

The process was then reversed, and we marched to the rear of the church. Friends and members of the faculty came among us and congratulations were in order. I said "Good-bye" to my old chum, Fred Parkhurst, and joyfully hurried back to my job. How embarrassed I would have been if I had had to carry a bunch of flowers through the streets!

When I arrived at the Hickling house I experienced some of the thrills that accompany the amenities of polite society. Mrs. Hickling came to the door to admit me, extended enthusiastic congratulations, called me "Doctor," and accompanied me upstairs. As I entered Mr. Hickling's room, he sat up in bed, shook my hand, and introduced me to a distinguished stranger who was sitting with him, to whom he explained that I had only just come from the graduating exercises where I had received my degree of Doctor of Medicine. Then the friend congratulated me, and added some nice words about the great profession that I had entered. He proved to be a man of marked social and political influence—

Mr. Marcus Stearns, who had settled in Chicago in 1836. Afterwards, during my sojourn in the Hickling house, he did me many kindnesses that I much appreciated.

It all ended so beautifully. I was a doctor; everybody seemed to be especially interested in doctors; I still had my wonderful job; already I had new friends who seemed fond of me; and I did not miss the flowers a bit!

IV

That afternoon Mr. Hickling's surgeon, Edmund Andrews, called on his patient. I was surprised when he said to me, "I am glad you are here. You will be a great help to me. I had mentioned you and your appointment to the fall term at Mercy Hospital." So this great surgeon whom we all loved so much as a teacher, and for whom I had dressed wounds during my senior year in medical school, had remembered me and was responsible for my present position!

Dr. Andrews turned to Mr. Hickling: "Now that you have a real doctor attending you it won't be necessary for me to visit you more than every other day. On the days when I do not come, will you have Dr. Martin report to me at my office on 16th Street?"

As I went down the stairs with Dr. Andrews, he said, "You have been working too hard. You have a nice place here with very unusual people, but it is a twenty-four-hour job. We must arrange to have you get out for a long walk every day, and you must eat plenty of good food and fatten up a little."

The anxiety and kindness of this great man astonished me. He sent me upstairs and had a brief interview in the drawing room with Mrs. Hickling. As she returned to her husband's room she said in my presence: "Dear, we must be careful of this young doctor. Dr. Andrews thinks he has been working too hard. He needs occasional outdoor exercise and plenty of food."

And then she turned to me. "How long have you known Dr. Andrews?"

I thought a minute and had sense enough in my confusion to say, "About three years."

Great was the value to a poor kid like me of a word of praise from one of influence!

V

Mr. Hickling asked me to read the morning papers to him each day. Plans for the great Republican convention of 1880 were under way. General Ulysses S. Grant was a candidate for a third term against the field. I soon found that my patient wanted every word of the political news. I am quite sure that he sensed my interest and enthusiasm for the developing contest, which seemed to be very one-sided. Grant stood out prominently at the beginning. Finally Blaine of Maine loomed up as a strong contender. Sherman of Ohio was becoming formidable, and nearly every state was bringing out and grooming a favorite son.

As the sessions of the convention started, Grant's vote had been whittled down to 304, and 378 votes were necessary to a choice. The voting was in full swing, the little "also-rans" had received their complimentary votes and were dropped; but Grant's vote was deadlocked until the thirty-first ballot, when it increased to 308.

In the Hickling household a real political contest was enacted at some time during each day. Between the sessions of the convention, Mr. Stearns would drop in to tell us the news. He was a politician and an impressive talker, and would dramatically portray every incident of those stirring sessions. To me it was the most interesting show on earth. I could not resist joining in the discussions. Noting my enthusiasm, occasionally the conversation was directed to me. When I accompanied Mr. Stearns down to the door, and raised questions that had not come up in the general conversation, he was very kind and answered all of my queries in detail.

VI

One afternoon, as the convention was starting on its second week, Mr. Stearns called. The ballots now numbered in the thirties. Grant's legion never wavered, nor could his total votes be increased by more than one or two. Mr. Stearns was nearly exhausted by the strenuous sessions and the intense heat. There had been no sign of a break for a week and he was thoroughly discouraged.

Prompted by a sudden inspiration, he turned to me and said: "Doctor, wouldn't you like to go down to see the show?"

"Wouldn't I!" I exclaimed. "Is it possible to arrange it?"

"Nothing simpler," he replied. "Here is a ticket and I will remain with Mr. Hickling."

My patient realized what it would mean to me and urged me to go. I snatched the ticket, rushed to the street car, jumped off and ran to the old Exposition Building on the lake front, presented my ticket, and entered the building. Once inside, an usher conducted me to the platform, and after placing me next to the speaker's desk, complimented me on my good fortune. The excitement in my breast was getting beyond bounds.

In a humdrum way they were calling the roll on the thirty-fifth ballot. Indiana had cast twenty-seven votes for Garfield; Maryland four, Mississippi one, North Carolina one, Pennsylvania one. And then, in the act of preparing for another ballot, they called "Wisconsin."

Away off under the eaves in the northeast corner sounded a loud voice among the Wisconsin delegates. "Mr. Chairman, I am authorized by the Wisconsin delegation to cast the entire state vote, sixteen in number, for James A. Garfield, of Ohio."

An electric thrill went through the great audience. Every delegate in the building was on his feet; the whole house was in an uproar! The chairman, the Honorable J. Donald Cameron, was vigorously pounding for order; delegation after delegation sought recognition, and when recognized cast its vote for Garfield. Someone had torn a door from its hinges, placed Delegate Garfield on a chair, the chair on the door, and a group of men marched the candidate around the hall, followed by an ever increasing procession. Frantic delegates grabbed their state standards and fell into line; soon a large majority of the delegates were taking their own way to express their vote! For half an hour pandemonium reigned. It would subside for a moment and then suddenly break forth again. I found myself waving my arms and yelling as I had never yelled before. The magnetism of the crowd was impelling! I would never see such a spontaneous demonstration again. Here I was, in at the peak of this great battle.

Garfield was finally declared to have received the unanimous vote of the convention. He was called to the platform to make a speech. I was so near him that I could have touched him! But my two hours were up, and I was anxious to report to my waiting friends on Calumet Avenue. I broke away and in half an hour was climbing the stairs of the Hickling

residence. I tried to remain calm. I entered the sick man's room where he and his friend were cozily discussing old times over their cigars.

"Hello," said Mr. Stearns. "Back so soon? I guess you found it rather tame."

I wanted to scream; but instead I said I had enjoyed it immensely.

"Anything happen of interest?"

This gave me my opportunity. "Yes," I said, "we nominated Mr. Garfield for President."

"Garfield!" They both cried. "How did it happen?"

My tongue was loosed. "Wisconsin did it—my own state." And then I rapidly sketched the whole wonderful scene, my enthusiasm increasing as I proceeded. Mrs. Hickling, hearing our voices, came in and sat on the edge of her husband's bed. My excitement was imparted to my hearers, and the strong men fairly wept.

Mr. Stearns said, "Doctor, I am glad that you could witness such a scene. It is your day. I have been in close attendance for over a week and here you step in just in time to witness the climax. I congratulate you. It is apparent that no one could have enjoyed and appreciated it more than you."

So the conversation ran on, until at last I became self-conscious and subsided as much as they would permit.

Whenever Mr. Stearns came to the house after that we would have a turn in politics. One day something came up about the Tilden-Hayes contest, and I inadvertently said, "At the time the Republicans stole the Presidency."

He laughed, and in mock fright and derision said: "Certainly you are not a Democrat!!!"

I was momentarily confused and replied, "I have never voted, but my grandfather Carlin is a Democrat."

After that he ragged me about my vote. I endeavored to remain noncommittal, but I am afraid he realized that strong heredity was influencing me.

VII

Mr. Hickling had been a great reader, and no doubt he soon discovered that his large personal library was to me an unexplored field. I had read "David Copperfield" and one or two other of Dickens' books. He

asked me to read "Pickwick Papers" aloud. It was evident that he was enjoying his review of this delightful book. At his request I read three to four hours each day.

He introduced me to Thackeray, Scott, and Taylor. There were histories of France—France that he particularly loved; books on the French Revolution and the last of the Louis, especially the fate of Louis XVI, and poor Marie Antoinette. He, like all strong men, admired Napoleon, and we had much of him and his wars. Whenever I hesitated in my pronunciation he kindly advised me, but always said, "You had better verify it in the dictionary," which I did. Without being aware of it, I was under training. So it went on throughout that impressive summer. I was gaining through a wholesome experience which I have appreciated forever after.

Dr. Andrews had outlined a program that took me away from the house at least one hour each day, when I got out and walked in the sunshine.

Every other day at eleven o'clock I went to Dr. Andrews' office on 16th Street. Here I met Wyllys and Frank, his two sons, who were studiously employed in reading medicine. E. Wyllys Andrews, who afterwards became a worthy successor to his distinguished father, was to graduate from the Chicago Medical College in 1881, and Frank was preparing to enter the same school for graduation in 1884. All greeted me cordially, including the great surgeon himself, who always thrilled and inspired me.

My chosen route lay via Calumet Avenue to 16th Street, and over to Prairie Avenue and my destination. On the return trip I walked down Prairie Avenue to 22nd Street. I always came back to my patient thoroughly refreshed, and keen for the general enjoyment of my situation. My duties were very light and easy of execution. I was a time server rather than an intellectual aid. Each day we reviewed the news and discussed politics. Then several hours were devoted to reading the classics, a fallow field for me. Mr. Hickling's running comments, and especially his reminiscences of the places referred to in our books—places where he had spent many of his livelier days in travel—were most instructive, delightful, and refreshing.

There was some discussion between Dr. Andrews and Mr. and Mrs. Hickling about the advisability of having my patient go to Vichy,



JEANETTE MARTIN, SISTER

France, because of his urinary trouble. I was considered as his companion, a pleasurable probability that I longed for and anticipated, but which never was realized.

VIII

Meanwhile my weekly payments were bringing me surprising affluence. My first thought was to clothe my body in a way that would place me at ease in my environment. Next I thought of my financial obligations to those who had loaned me the money that made my education possible.

Within a short time I proudly sent Grandmother Martin a money order to cover the twenty-five dollars she had given me, but which I considered a loan, for expenses during the first year of my studies. Next, as my funds piled up at the rate of five dollars a day—an enormous payment for so little work—I sent one hundred and fifty dollars to Uncle "Ad," to liquidate a note. Nothing I have ever done has given me more enjoyment and satisfaction than these two acts; and I believe no greater surprise ever came to those two dear relatives, my creditors.

When Dr. Andrews returned from his vacation, renewed in strength and spirits, he looked me over, and found me thin and white in comparison with himself and the Indians and guides in the Lake Huron region where he had spent the summer. He announced that I must be released for a vacation and some sunshine before I took up the interneship at Mercy Hospital.

It was agreed, with genuine reluctance on the part of the Hicklings and sad regrets on my part, that this program was the logical one. For five months, seven days in the week and at least eighteen hours a day, I had busied myself in this profitable and pleasant position, and it was difficult for me to express appreciation to my friends for their kindnesses and courtesies. Mr. Hickling had treated me as a son. His interest in my future was apparent as he carefully guided and advised me. So it was not without emotion that I bade "Good-bye" to these two spiritual and material angels.

As I look back on my associations in that household, after these many succeeding years, I appreciate that it was a veritable crisis in my life that has been of incalculable and lasting value.

IX

With renewed spirits, I arrived home to receive a royal welcome from my dear mother, Sister Nettie, now an attractive young woman, and my stepfather. My people were now located within three miles of famed Oconomowoc, on an attractive farm bordering one of the picturesque bodies of water in Waukesha County, which bore the appropriate name of Silver Lake.

Mother's keen and loving eyes were distressed by my lack of color and my meagerness of avoirdupois. For one whole month I was petted, treated as a distinguished guest, and enjoyed the pleasure of being a loved member of a happy family. We fished, explored the beautiful lake in our boat, basked in the brilliant sunshine by day, and walked in the light of a yellow harvest moon at night. Color came to my faded cheeks, strength to my unused muscles, and flesh to my lean body.

It was a happy month. The past was satisfactory; I had money in my pocket; and a future before me that was ardently beckoning. Everything tended to fill me with joy that was difficult to suppress in the presence of strangers, and that I made no attempt to curb among the members of my family and relatives. The vacation was ended. The near ones were satisfied with my outward appearance of fitness, and I was looking forward with fiery ambition to the new adventure—taking my place beside my future confrères in the actual practice of medicine.

The time arrived. I departed, thrilled with tender memories of the wholesome life in Wisconsin; but so filled with thoughts of the coming days that I was a little remiss in emphasizing any regrets. Fortunately the dear ones at home were too deeply interested in my future to show sorrow at my departure for the new field of action. Like sensible country people, they said, "Good-bye, God bless you"—and I was off.

6

1880. THE GREAT PROFESSION

I. Mercy Hospital Interneship. II. Septics and Antiseptics. III. The "Dressing Boxes." IV. Order Out of Chaos. V. Typhoid Fever. VI. Smallpox.

I

Once again I made the journey to Chicago. It was no longer strange to alight in the great city and arrange for transfer of meager baggage; no unusual thing to walk east from the Canal Street station, board a Cottage Grove Avenue car, get off at 26th Street and walk one block west to Calumet Avenue and to my future abiding place—the three-story, red brick building at the northwest corner, even then famous as the great Mercy Hospital.

I climbed the stairs at the main entrance and was received at the door by a Sister of Mercy. I announced that I was the new interne, and gave my name. She ushered me into the receiving office to the left of the entrance, where I was cordially greeted by Sister Raphael, to whom my heart immediately warmed. Anyone who knew Mercy Hospital during the fifty years following that date would not ask why I was charmed by that beautiful woman, then in her prime, and destined to become the great executive of that institution. She laughed heartily in after years, as I frequently called upon her and remarked, "Sister, if you had been a man instead of a woman you would have been Pope long ere this." Her sense of humor and her keen Irish wit never allowed implied compliments to pass without a long remembered "comeback."

The internes' quarters were located back of the clinical amphitheater in a court wing, the upper portion of which was occupied by a commodious chapel. I was immediately pounced upon by my two predecessors, Dr. Potter and Dr. James J. Larkin, who were anticipating my arrival. Potter looked me over and said, "Good heavens, Martin, where did

you get those clothes? And that hat? And, Larkin, look at those shoes. I'll have to take him in hand as I did you, Larkin."

Then Potter paraded me around the hospital. With my advent, he announced that he automatically became the senior interne. "Larkin, you are out," he informed that individual, who seemed but little perturbed, as he planned to remain only a few days. I was introduced with a flourish to the sisters in charge of the several wards and floors, and to a few of the important patients with whom my guide seemed to be on friendly terms. This was an ordeal. But Potter was a good talker, full of wit, and had a keen appreciation of my inferior social amenities, so there was little for me to do but to acknowledge briefly the introductions, smile at his sallies, and pass on.

When we returned to our rooms, I asked about my duties. "You are to wait on me; obey my orders; carry around those nasty dressing trays with their smelly bottles and dripping syringes; and dress, under *my* supervision, the stinking wounds. There will be enough for you to do, and I thank my stars that I am through with that disagreeable drudgery."

Our sleeping quarters were comfortable—good light, good beds, and toilet facilities thoroughly up to those times! We had our meals in a private dining room in the front basement, and were waited upon by a nun. Our food was good, being second in quality only to the fare of the several priests who occasionally occupied quarters in the institution.

II

It is interesting to recall the transition in medicine and surgery from the era of the pre-germ theory to the present-day methods of practice, developed through bacteriology.

Pasteur (1862), father of bacteriology, announced, as a result of experimental research, that fermentation and putrefaction were caused by the action of bacteria or microbes.

Joseph Lister (1865) accepted Pasteur's pronouncement as a new truth and was convinced that it accounted for infections in wounds. His practical mind argued that if germs or bacteria in the air caused fermentation in pure, unfermented fluids, germs of a similar type could produce infection in exposed wounds, destroy tissues, cause pus to develop, contaminate the fluids of the body, and menace life. He studied

methods of protecting wounds from the attack of micro-organisms in the air, and experimented with solutions—antiseptics—that would destroy them by contact. He covered the wounds with layers of gauze which he had permeated with carbolic acid or other disinfectant to destroy the germs in its meshes. Wounds so treated, he announced, healed without infection or suppuration.

On the theory that the air carried disease-producing germs, he introduced his famous atomizer, which sprayed carbolic acid about the area surrounding the operating field. All instruments employed in the operation were immersed in carbolic solution to insure freedom from bacteria; and the operator's hands were likewise rendered "antiseptic." Through this program, carried out with minuteness of detail, the results in operative surgery were greatly improved. When infections did occur in spite of this painstaking procedure, carbolic solution was applied and the wound was further protected with antiseptic gauze.

Bacteriology was developing and it became apparent to this new school of thought that many non-surgical diseases were directly attributable to some particular form of germ life, a revolutionary theory condemned by a majority of the practitioners of medicine and surgery, some prominent and others less well known. The bitter controversy was at its height when I entered upon the practice of medicine.

Many of our respected leaders were absolutely opposed to this "new-fangled" theory and openly ridiculed it; arguments, backed by the traditions of decades of practice, were hurled at us from medical literature and from medical rostrums; Lister was derided by many of his own countrymen; Pasteur was discredited by the scientists of France. And what were we, as novices, to accept as truth?

It was fortunate for us that our teachers were of varied opinions, and that we respected equally the principals of the two camps. Our youthful minds were open and we were free to peruse the medical journals which gave both sides of the subject. Germany was among the first to yield gradually to the germ theory, and her literature accredited Lister and Pasteur before they were accepted at home. By degrees we realized that the battle was tending toward recognition of the bacteriologists.

The six abdominal sections that we, as students, had witnessed in the preceding three years had resulted in as many deaths. Our surgeons assumed a grave responsibility when they attempted such operations.

Hence any procedure that might reduce the prevailing mortality in major surgery had to be investigated with care.

There were less critical conditions that did not involve the serous cavities of the body, or severe bone and flesh injuries in which minor surgery was necessary, and the risk not so forbidding. These cases, which comprised the bulk of our surgery, required painstaking after care. No incision made by the surgeon, or accidental wound that required stitches or dressings, was allowed to heal undisturbed—except through accident or neglect.

It was my duty as the junior interne to apply the dressings, after two or three preliminary exposures by the surgeon in charge. It was an all-morning's job, and in severe cases the ordeal had to be repeated more frequently. The private rooms were visited first, and later the wards, with their long rows of infected cases. If a patient had an infection that was intractable, either because of its extent and severity or because of lowered resistance, he was segregated and removed to the "infected ward" or to the "erysipelas ward."

III

The "dressing boxes" were wooden trays with a convenient handle. Each tray was divided into five sections: The larger compartment contained a supply of coarse cotton; a smaller one a limited supply of absorbent cotton; a third, long forceps and a metal probe or two; and the remaining two each accommodated a wide-mouthed quart bottle, one with a two and one-half per cent carbolic solution in thick oil, and the other with a five per cent watery solution of carbolic acid, in which a large syringe of hard black rubber was inserted. The syringe had a pointed two-inch nozzle, and its barrel held an ounce or two of solution. At the top of the plunger was a ring into which the operator inserted his fingers to manipulate the apparatus. Additional accompaniments—bandages, refuse jar, et cetera—were conveyed from bed to bed on a small wagon.

As I trudged through the wards of Mercy Hospital with my wagon, trays, and solutions, I was looked upon as the harbinger of an execution; my arrival portended the coming of the guillotine. There was a murmur of horror from the patients in Ward Five as I appeared. Even now I sometimes waken in the night and hear those wails of protest.

Whenever I smell carbolic acid I visualize a frail, emaciated boy, with large appealing eyes; his leg had been amputated, his thigh was honeycombed with cavities from which stinking pus poured forth, his resistance was at the lowest ebb and his unearthly moans were heartbreaking as I painstakingly treated his wounds twice a day in an effort to heal them.

If I had not been extricated from the pre-antiseptic and pre-aseptic era (though a number of my confrères were not converted), I never could have justified the floundering that in ignorance I perpetrated during those days of transition. It is my hope that the subsequent history of the young doctor's life will reveal that these bitter experiences helped him to know the truth and in a way to make amends.

IV

An urgent need was a knowledge of the fundamental principles involved in the germ theory. Bacteria were being studied, and successfully, by the bacteriologists. Media were discovered in which the organisms could be grown and cultivated, and dyes were used as an aid in distinguishing and segregating them. Their habits were becoming known. They were found in scrapings of the skin, in the crevices and creases on the surface of the body, and the spaces beneath the finger nails. Research of methods revealed that heat, chemicals, and elaborate cleansing by scrubbing were among the destructive agents; that certain temperatures of heat were necessary to destroy different species of bacteria; that antiseptics of a given strength would kill bacteria and yet not do irreparable harm to living tissues.

Lister's principles emphasized the importance of eliminating germs from the field of operation, and of applying protecting dressings and antiseptics to keep the wound free from bacteria. Bacteriological research was divulging secrets, one by one; and day by day we as amateurs were gaining a practical knowledge of fundamental principles.

And now, fifty years later, progress continues in the study of bacteriology as the mysteries of susceptibility, immunity, toxins, antitoxins, and sera are being unfolded. At the present time there is not an educated tyro in medicine or surgery, nor a well trained nurse, who does not understand the practical principles of aseptic and an-

tiseptic surgery, and who has not acquired what we call an "aseptic conscience."

In 1880, at least ninety per cent of operative wounds became infected; and practically seventy-five per cent of abdominal operations performed by the average surgeon proved fatal. There were exceptional cases, but they were either accidental or the result of handling by experts—that small minority who had succeeded in envisioning the principles of antiseptic surgery and who had mastered its technique.

All of these facts are well known to the professional reader, but they may be of interest to the layman, as the transition of this entire subject developed during the medical career of one who entered upon the practice of medicine during the regime of the *old*, who early became a disciple of the *new*, and who has lived to see the day when recovery is assured in ninety-eight per cent of cases of uncomplicated opening of the abdomen or other serous cavities, and when an infected wound carries with it a suspicion of criminal negligence on the part of the surgeon or attendant.

V

In the summer and early fall of 1880, a periodic scourge of typhoid fever prevailed which was noted for the severity of the attacks, as fully fifteen per cent of the patients died.

Our complete staff of medical and surgical attendants was in demand, including Professors Davis, Hollister, Johnson, and Quine. Each attending physician was accompanied on his rounds by an interne, and we were confused by the variety of remedies that were prescribed by the different men. Reference to the pharmacopœia and materia medica, however, showed that the intended effects of the prescriptions were much the same. Contact with these painstaking practitioners taught us much about the many phases of the disease—peculiar mental changes, the appearance of the tongue, and color and feeling of the skin as an indication of fever. The clinical thermometer was a "newfangled" affair and had to be read before it was removed from the mouth.

The routine treatment consisted in nursing, and administration of drugs to counteract any unusual symptoms. Diet varied with the attending physician—barley water, chicken broth, milk and soda, or

lime water, or no food at all. Water was prescribed by some, not at all or very little by others.

Approximately eight or nine of each ten patients gradually reached what we called the crisis; viz., the height of the fever, which then abated slowly. At this stage a small percentage collapsed and died, and a few succumbed from intestinal hemorrhage and perforation of the bowels.

Week after week of strenuous routine in an endeavor to combat this terrible epidemic proved very wearing, even on the strength and morale of the youth.

VI

Smallpox, with its devastating effect and wholesale destruction of life, had been observed for many years by an Englishman, Edward Jenner (1749–1823), and he became convinced that there must be a preventive or a remedy for the dread disease. As every thinking physician of *this day* is convinced that the cause of cancer must eventually be discovered and a preventive and cure effected, so the profession of medicine of Jenner's time, without our advanced scientific knowledge, yearned to solve their gigantic problems.

It was known that one attack of smallpox caused immunity; that an individual inoculated with the blood of a smallpox patient usually developed the disease in a somewhat milder form; and that this dangerous expedient, if it was effective, gave protection against future attacks.

Jenner sought to determine if there was any special group of people who were less susceptible to smallpox than the great majority, and he found this to be true in certain communities; also that milkers, maids and men, were less liable than others to contract the disease! Was there a reason for this? He concentrated his observations upon the milkers, and studied their habits. Was it the climate, the condition of the air, the food they ate, or the work they did? He unearthed a tradition among these people to the effect that cows had an ailment which resembled smallpox, but in a much milder form. His observations confirmed this belief. He examined the animals, and found upon their bare udders and teats pustules that resembled in every respect the smallpox pustule. He questioned the milkers to determine if at any time they had noticed any illness among their number. Yes, some of them had

been ill for a few days. Had any of them observed pustules on any part of their bodies, especially on abrasions of the hands? Yes, some of them believed they had noticed these little sores.

Finally his chain of sequences was complete. Cows contracted smallpox; the attacks were less severe and more rarely fatal than in humans; the milkers who were afflicted with a mild form of pox for some reason did not contract human smallpox. Upon these facts vaccination against smallpox was established in 1796. Advisedly, one must say *established*, because for a century vaccination has been the subject of ridicule among unthinking or ultra-conservative people. And Jenner himself did not escape, but was subjected to the same bitter penalties of derision and disbelief that were later accorded Pasteur and Lister.

Unnumbered millions of lives have been saved by the discoveries of this meddlesome personality. As long as there is a civilization the name of Jenner, this painstaking protector of humanity, will stand at the pinnacle of fame. [I have just perused a report of the U. S. Public Health Service (May, 1931) which indicates that ninety-seven per cent of the cases of smallpox occurred in states in which anti-vaccination propaganda has been most active. "When vaccination and revaccination are neglected, smallpox flourishes; in communities that are well protected, cases and deaths are rare, indeed."]

Late in November of 1880, the senior interne being occupied, I was called to the Mercy Home. Communicating doors and corridors connected the two institutions. I was met by the little nun in charge and asked to see a sick young woman, one of the guests of the home. She was restless and feverish, with flushed face, and a peculiar rash on the exposed portion of her body. Sister Anthony and her young assistant were apparently alarmed by the unusual symptoms and appearance of their ward, and I was on trial. I ran over in my mind the catalog of eruptive diseases and the well remembered symptoms of each—scarlet fever, measles, chickenpox, and the range of less important eruptions.

The young woman, my first private patient, was seriously ill, and as I did not recognize the disease, I proposed that we call in a member of the attending staff of the hospital. Sister Anthony suggested Dr. Hollister. It was evident that I had made an impression by suggesting a consultation. Dr. Hollister's home was equipped with one of the few telephones in Chicago. Within the hour he drove up with a team of

spanking horses, and I was waiting on the steps to greet my first consultant.

"What is it?" he asked, with a twinkle in his honest eyes. Now, I might have answered "Search me," but then, with my respectful admiration for this distinguished physician, I probably mumbled something about being "unable to make a diagnosis."

As we entered the home, he was greeted as a respected friend in times of trouble. Sister Anthony walked with him, and I followed meekly. As we approached the room, I noted that the distinguished consultant began to sniff the air. Before he reached the patient he whispered to me, "It's smallpox—notice the odor."

He examined the patient carefully and while it was too early for well-defined pustules, his snap judgment (aided by an experienced sense of smell), was confirmed. The patient had the dread disease.

The usual panic ensued. Each of the seventy-five women in that home must be vaccinated immediately. "That will be your job, Martin." The patient must be removed immediately to the pesthouse; the case must be reported to the Health Department; and the room must be fumigated after removal of the patient.

It was arranged that Potter and I should convey the patient that same evening to the pesthouse at California Avenue and 26th Street (the present location of the Chicago Bridewell).

With difficulty we secured an old-fashioned express wagon. The owner suspected, owing to the lateness of the hour set for the departure (eleven o'clock at night), that we were transferring a "stiff" somewhere for dissection, but consented to entrust the vehicle to us. A mattress was placed in the back of the wagon, warm blankets in abundance were provided, and the young woman bravely accepting the situation was cozily tucked away in her *de luxe* conveyance.

The start from the alley entrance was made on time. The two expectant youths, well protected from a chilly November night, drove west through the 22nd Street lumber district toward the pesthouse. But little difficulty was experienced in finding the way. From time to time, on anxious questioning, the patient cheerfully reported that she was comfortable and enjoying the ride in the cool atmosphere. After a four-mile jaunt, a large, rambling house came into view.

"This is the pesthouse," was the response to our pounding on what

seemed to be the front entrance. We explained our errand to our genial host. He called his wife, who appeared in her bedroom wrapper. These two were the sole caretakers of the place. They gave us a cordial welcome, and we carried our patient to a white, clean bed on the upper floor. The place was practically empty.

The room into which we had made our entrance was a large, clean kitchen, warmed by a big cooking stove. On a long table was the day's baking of bread. It sent forth a delicious odor that imparted a yearning to the gustatory faculties of the two youthful adventurers. The middle-aged housewife, who undoubtedly had growing boys of her own, suspected our needs at this late hour of the night. She asked if we would like some supper. "Not supper, but some of that delicious, warm bread with a bowl of milk, if it is not too much trouble." Immediately our request was granted, and there in that warm, well-lighted kitchen, at the immaculate table, we proceeded to reduce by at least one loaf the next day's supply of bread while our hospitable host related his experiences as a pesthouse keeper. Little did we realize then that this journey would be repeated by us almost nightly.

We asked our host how many smallpox patients he had seen. Definite records were not immediately available, but he was sure that he had seen thousands. What proportion of those had been vaccinated? Not one true smallpox. Occasionally a patient who had not been vaccinated for years would come in with a mild case of varioloid. It was obvious that he was staunchly partisan to vaccination.

Our experience was one long to be remembered. In the alley between aristocratic Prairie and Calumet Avenues we returned our express wagon to its owner at four o'clock in the morning. Sister Raphael, Sister Victoire, and Sister Anthony awaited their boys (bless their hearts), and had provided a little "toddy" to keep them from catching cold, and steaming coffee and all the delicious hot things that made up an old-fashioned breakfast. We never mentioned our supper of freshly baked bread and milk. It was just as well, because they would not have believed it, judging by the breakfast we were devouring.

These three wonderful nuns, too, I suspect were enjoying a stolen but innocent romance. We prevailed upon them to be seated at our table, and Potter, in his most exhilarating mood, proceeded to regale them with the actual and imaginary details of our trip.

Rapidly smallpox spread to all portions of the city. Nightly, in our spacious carryall, we transported one to two or even three victims of the disease to the pesthouse from Mercy Hospital, Mercy Home, or near-by St. Xavier's Convent.

We were busy every spare moment vaccinating the patients, nuns, orderlies, and guests in Mercy Home. I was even permitted to vaccinate some of the students within the sacred precincts of the convent, with its array of beauty and youth, though it was customary for the older men only to attend these students.

Soon the pesthouse was crowded beyond capacity. What was to be done? The Health Department consented to our use of the large attic at Mercy Hospital, which we filled with cots. Eventually this, too, proved inadequate, and small wards and private rooms were utilized. At times more than a hundred smallpox patients were housed in these buildings. Many patients who entered the hospital because of other ailments contracted the disease and died.

Among the dramatic incidents of that winter was the case of a pregnant woman who contracted smallpox after she entered the hospital. Her body was covered with confluent pox, and I was called to attend her at her confinement. She could not be touched without rupturing the suppurating pustules from which the discharging pus literally dripped. In this condition she was destined to experience the agonies of childbirth. Fortunately, she scarcely survived the ordeal, as she died with her stillborn child beside her.

All Chicago was terrified, and the Health Department was subjected to severe criticism. Even the most conservative and ignorant were convinced that vaccination was the only preventive for this dread scourge, for hadn't its efficacy been proven in their own families and by the people walking on the streets? Scarcely a severe case of smallpox was recorded or even observed among the "innocent bystanders" who could show evidence of having been properly vaccinated.

All of Chicago that was not in the throes of smallpox traveled with a sore arm.

7

1881. THE DOCTOR BEGINS HIS MEDICAL PRACTICE

I. Experiments with Antiseptic Surgery. II. Claims of Lister Are Proven. III. Childbearing. IV. Teaching Obstetrics. V. Senior Interneship. VI. Assassination of President Garfield. VII. Minneapolis Selected as My Future Base. VIII. A Trial at Private Practice. IX. Hay Fever. X. On My Own in Chicago. XI. My Boarding House. XII. The Developing Practice.

I

PROFESSOR ANDREWS was in the midst of his experiments with antiseptic surgery, and every operation was the signal for a trial of new theories. This great man would shuffle into our little sitting room and speak with us, as though we were his equals, of the thoughts that were running through his scientific brain. We were stimulated to read and to discuss at length everything on antiseptic surgery and Lister's theories that could be found in current medical literature.

Operations were exhibitions of apparatus rather than demonstrations of technique—formal discourses with the interested students sitting on the benches, enthusiastically hanging on every word. Potter and I were taking ourselves very seriously. Potter assisted with all of the skill that his spectacular and acute mind commanded, and I stood at the far end of the table administering the anesthetic and endeavoring with all my might, in my anxiety to see and hear everything that was going on at the other end of the table, to keep from drowning the patient in ether.

But this was only the forerunner of events to follow.

II

Prof. William H. Byford, the gynecologist who was worshipped by all, had been called to the rival school—Rush Medical College. He

was known as Chicago's greatest ovariotomist. The Chicago Medical College had been fortunate in securing as his successor Prof. Edward W. Jenks, of Detroit, newly appointed gynecologist of Mercy Hospital. He was a handsome man, with a delightful personality, and a transcendent reputation, and we were all eager to please him.

He evidently had enterprise, as he planned to begin his career in Chicago by performing an ovariotomy—the removal of a large tumor of the ovary, which at that time was considered the most stupendous surgical operation. Listerism, in its minutest detail, was at last to be "initiated" in Chicago.

A large "steam spray" of approved type was provided, and all of the shiny and impressive instruments described by the great master, Lister, lay in a cotton-flannel bag.

The patient, a woman of means, occupied our most expensive room. Her husband, relatives and numerous friends had come on from Michigan to be present, or at least near at hand, during the great ordeal. The room in which the operation was to be performed was scoured, fumigated, and saturated daily with the fumes of carbolic acid from the new "steam spray." New tables and receptacles were in place, all free of bacteria. Several rehearsals were held, and Prof. Jenks had segregated the innumerable staff of would-be assistants.

The eventful day dawned, and the operation became a reality.

Operator, Prof. Jenks; *Chief Assistant*, Dr. Potter; *Anesthetist*, Dr. Martin; *Spongers and other assistants*, three Sisters of Mercy, and two orderlies, to fetch and carry the necessaries.

Others present: Profs. Andrews, Quine, and Hollister, and several other invited guests.

Costumes: Prof. Jenks and chief assistant, light street clothes, with large aprons of oiled silk; anesthetist and all others present, ordinary street clothes.

Operating room equipment: Sea sponges immersed in a basin of carbolic solution; two and a half per cent carbolic solution in a basin behind operator and assistant operator; a table at the right of the operator containing instruments in shallow pans, a large trocar with tube, and supply of silk ligatures in a small basin; a high table at the end of the room supporting the "steam spray" which was manipulated by a nun.

The operating room had been saturated with carbolic spray from the atomizer, and everything was in readiness when I was sent to the patient's room with an attendant to administer the anesthetic. Prof. Jenks had preceded us and was reassuring the patient that "everything is all right. The ether will be a little unpleasant at first." Dr. Andrews, standing near by, gave the anesthetist some valuable advice. "Give as much ether as you can at the beginning, and when the patient is thoroughly under, give the minimum amount that will keep her asleep." The husband and several relatives and friends were interested and anxious observers. It was a profound experience for all of us.

After the patient was asleep, we carried her to the adjoining room and placed her upon the operating table. She continued to breathe stertorously and profoundly as we wheeled her into the operating room, which the spray of carbolic acid had rendered almost impenetrable to sight.

The patient had been anesthetized for at least thirty minutes when the operator proceeded to wipe off the center of her abdomen with a sponge saturated with carbolic solution. He then selected his knife and began a search for the *linea alba*. Prof. Andrews lent his aid and others also generously attempted to point it out. Finally the knife penetrated the skin and the incision was carefully extended from either end. It was the consensus of opinion that the *linea alba* had not been incised. However, the tense wall of the abdomen was thinned by the pressure of the tumor, and it was apparent that the peritoneum had been incised.

That blue something beneath the peritoneal opening must be the ovarian cyst. In those early operations, if the surgeon was not entirely sure of himself he would ask members of the audience for advisory comments, which were usually freely given. At this operation, I venture to say, everyone contributed his bit, and Dr. Jenks was more than willing to share responsibility.

Upon suggestion, the abdominal incision was extended slightly. There could be no mistake; the glistening mass that protruded must be a tumor. Should he explore with his hand to discover if it was non-adherent, or should he at once attack the protruding portion with the penetrating four-toothed trocar to secure the growth? It was suggested that the trocar with its rubber hose attachment would partially empty the tumor of its fluid, and thus facilitate exploration and delivery. This

was attempted. The sides of the abdomen were pressed inward; the tumor, being very thin, burst; and the excessive pressure which spurted the fluid over the entire field of operation and sides of the abdomen, finally expelled the tumor with its undrained fluid.

Little sponging was necessary. A long pedicle with its blue blood vessels lay ready to ligate. With great force, the operator tied off the pedicle, using strong, braided silk ligatures. With trepidation the stalk was severed, and the mass—the empty tumor—with its dripping fluids was held high so that everyone present could see and exclaim, "Oh! Oh!" and then it was dropped into a large tin receptacle under the operating table.

Should the ligatures on the pedicle, as was customary with ligatures securing the large arteries in an amputation, be brought out of the wound, or cut short as Lister and some of the German operators were advising? The consensus of opinion favored cutting them short and burying them in the bottom of the abdomen.

Fortunately, the cavity was apparently free of fluid owing to efficient counter-pressure by the first assistant, and it was decided to close the wound with through-and-through sutures. The surface of the abdomen was again bathed with a carbolic solution, and elaborate dressings *à la Lister* were carefully applied.

After a long hour and a half the anesthetist was ordered to "let up on the ether," and the patient was removed to her bed. Every member of the operating staff and the spectators—clothes, skin, hair, beards and all—were wet to saturation with the condensed carbolic spray. Everyone who touched the fluid noted that the skin on his hands was partially paralyzed.

The operator, however, had covered himself with glory. The patient was alive, with a rapid but "good quality" pulse. "Good nursing" was the slogan that counted for or against recovery or death in these desperate cases, and it would complete the success. (When one in eight recovered, the attendants attributed it to "good nursing" and the surgeon to his skill. If the patient died, the surgeon said the tragedy was due to some possible slip in the nursing care, and the attendants, that death occurred in spite of faithful nursing.)

Potter and I rather leaned to the side of the attendants, but we were satisfied that the surgeon had performed a wonderful operation.

Hadn't we aided in the various steps of preparation of the patient an her environment, and hadn't we actually assisted in the operation i self? We were determined that this particular patient should not lac for nursing attendance. One or the other of us would sit at her bedsic until she was well. Of course we allowed the faithful nuns to assist u through the long, dreary hours.

The patient awakened from her ether anesthetic. Strange that sh was not nauseated. Strange that the first night she slept like a child She was not disturbed by the constant taking of her pulse, the countir of the respiration, nor our feeling of her skin to note her temperature

The following morning she was brighter than any one of her a tendants, or the surgeon in chief who had slept at home and continue to get reports at nine, at twelve, and at the dead hour—two o'cloc The new thermometer was used to take her temperature, which in dicated "normal" as it had the night before. This elicited considerab discussion. Should the wound be examined? Possibly the laudabl healthy pus was being suppressed. The consultants were reminded b someone who was more conversant with the recent literature tha others that possibly the wound was healing "by first intention." B recent experience caused someone to say that although that was a right theoretically, it was something that didn't happen.

The surgeon was uncomfortable about not seeing the wound, a though Lister's injunction was "as long as there is no fever hemorrhage, leave the dressings undisturbed." Possibly the thermom ter was unreliable; but the skin was moist and cool. The surgeon cor promised by carefully raising the edges of the dressings and actual peeking under without bringing the carbolic spray to bear upon t wound. Nervously, the surgeon announced, "The wound is perfect dry."

Potter, after consulting me, reminded the surgeon that he h neglected to use the spray while he peeked at the wound. Dignifi Prof. Jenks looked at his accurate assistant, but said not a word.

The patient had but two complaints—she wanted water and som thing to eat. Of course neither of these unreasonable requests could granted. Not until the third day could she have "even one drop water." Her tongue, however, was occasionally cooled with a mo sponge.

The second day and the third day went by, and the two internes alternated in service. The patient's pulse beat was from seventy to eighty and her temperature was normal. This marvelous condition created much comment. The wound was regularly "peeked at," but always, subsequent to the first time, with the spray playing over the dressings. This distinctly annoyed the patient and disturbed her sleep. There was no chance for a crisis, because her temperature never went above 98.6°, the normal.

The surgeon, who was getting his full quota of sleep, was daily more cheerful. We, the internes, were worn out and could not have endured our strenuous duty had it not been for the cheerful nuns who sat up with us.

The third day dawned. No fever, and the strangest thing of all, the daily peeking at the wound had revealed not even "laudable pus." It was time to give the first teaspoonful of promised water. The surgeons and all attendants were present to watch the result. The water was much appreciated. It was rumored about the hospital later in the day that the patient actually asked to take the glass and drink it all! What an astounding request!

After a week the story became monotonous; the patient would probably get well. How fortunate that she had had such faithful nursing! The surgeon, our chief, heard so much praise of the nursing that he too, though a little sensitive about the rumored cause of success, admitted that the nursing had been wonderful.

At the end of ten days, according to instructions, the dressings were removed, the wound exposed under the spray, the surface sponged off with five per cent carbolic solution, and the stitches carefully removed, one by one. The wound was dry, no pus even on the silk sutures. It had "*healed by first intention!*" I doubt if any one of the senior and junior staff members of the hospital and the other witnesses to this wound exposure and stitch removal had ever before seen an abdominal wound that had actually healed without suppuration.

What a momentous experience this was for these groping doctors! Several claims of Lister, seriously questioned by the leading surgeons, had been proven beyond doubt in this one case: A wound healed without change of dressings! Why? Because the dressings were antiseptic. A wound healed without the formation of pus! Why? Because the

incision was made under antiseptic conditions! A large abdominal wound healed without the development of fever! Why? Because the incision was kept free of germs which produce fermentation; fermentation in wounds produced infection, and infection produced fever.

It had established confidence in those of us who were partially convinced, and it was a revelation to the frankly doubtful! Literature treating of Listerism would in the future be read with a real sense of understanding.

For myself, I was fired by the possibilities of Lister's theory, which, if true, substantiated the statement of his followers, especially the German observers, who indicated that it provided the means of antiseptic midwifery—that women could be confined without subsequent fever and without the high mortality of childbed fever. This interested me profoundly, because one or more confinement cases were cared for in the hospital every day.

III

The numerous obstetrical cases involved continuous night work, and they soon became an old story. The senior interne was supposed to attend patients who had no physician and whose cases were uncomplicated. Private cases were referred to the responsible member of the attending staff. But it was becoming more and more difficult for the senior interne to spare time for these troublesome daily tasks, and before many days I found myself caring for confinement cases to the end of labor. During the long hours of the night I would sit at the bedside of these young women, many of them unwed, and endeavor to comfort them in their agonizing hours, and assist nature to perform her duty as she had done since Eve bore Cain and Abel. Many times several women in these small wards were awaiting the ordeal, or happily some of them, with the complacency of experience, were convalescing. There was little monotony on these occasions. Advice was exchanged, and banter ensued at the expense of the victim and the doctor.

There was time and food for thought. Why did so many of these patients develop fever after their normal experience? Were the germs in some way responsible, as was suspected and proved by the Germans? If so, how did germs get into the internal soft parts? The external parts

could be rendered antiseptic, as was done, according to Lister's advice, at the site of the wound in our operative case! At least it was a simple matter to wash the external parts with five per cent carbolic solution. As recent literature indicated that the fingers of the attending accoucheur proved the most direct means of internal infection, the attendant should render his hands germproof by bathing them in five per cent carbolic solution.

I decided that I would apply this theory, but I was rather quiet about my plans as I did not fancy ridicule. Surreptitiously I carried into the obstetrical ward a pitcher of warm carbolic solution, a basin in which to dip my hands, and some soft napkins. My technique was as follows: Carbolic solution was used to bathe the external parts of the patient, napkins saturated with it were placed over the parts, and my hands were dipped in it before each examination. After confinement, all of the involved parts were bathed with the solution, and napkins saturated with it were again placed over the parts.

For several reasons it was difficult to carry out these procedures. It was a great nuisance to furnish and replenish the simple apparatus, supplies, and solutions; very few of my associates were sympathetic to "such nonsense"; and frequently my superiors were present. I could not dictate to them, and I was reluctant, if not actually ashamed, to discuss with unbelievers a theory in which I so fully believed.

However, I watched my patients with great care. I was agreeably surprised to note that their temperatures remained nearer normal, and there was not one case of childbed fever. In my six months of full-time service, and at least three months of part-time service, no deaths were registered that could be attributed to accidental infection, with the possible exception of the case of confluent smallpox already referred to. My experience with about seventy-five patients satisfied me that there was much to commend my primitive technique. And at least it brought me the gratitude of each of the unfortunate women, many of them mere girls, and at least one-half of them abandoned by the fathers of their children.

Amusing things occurred. Many of the infants were baptized by me before they were actually born, either at the suggestion of mothers if they thought the experience would be fatal to them, or of the faithful Roman Catholic nuns if labor was prolonged and threatened the death

of the child. Because of my inability to remember any kind of set formula, one of the nuns usually prompted me. I had difficulty especially in including all of the persons of the Trinity.

The windows of the maternity ward faced 26th Street and Prairie Avenue, toward the homes of the social aristocracy. During the hot summer months, when the windows were wide open, some of these strong-lunged prospective mothers gave vent to their suffering with long, heartbreaking shouts and groans. On one or two occasions night watchmen or special policemen employed by the neighbors reminded our authorities that we were disturbing the peace of the neighborhood. But in spite of that warning, with my boyish sympathy for my charges I could not refrain from encouraging them to cry out their misery to all the world, believing that it would lessen their pains.

Some of these mothers who had become fast friends of mine, whose fatherless sons were being torn away from them to be sent to the foundlings' home, in their agony honored the attending physician by bestowing upon their offspring the full name of their beloved doctor. In after years I have paid the penalty of this honor to the extent of having my bank account confused with other accounts registered under the identical name.

IV

Early in the year some members of the senior class of the Chicago Medical College asked me to quiz them in obstetrics. Aware that my shortcomings in general information would handicap me, I requested the self-appointed committee to ask Prof. Roler if it would be satisfactory to him if I were to undertake the work. Dr. Roler's only knowledge of my capabilities was gleaned from his observations in class, and the fact that I had passed my quizzes and examinations in obstetrics with satisfaction. He sent for me. I took with me my notes of his lectures, and these, coupled with my replies to his numerous questions, apparently convinced him that it was safe to allow me to become the quizmaster.

At the close of our interview he said that a position was open in the department of gynecology and diseases of women at the South Side Dispensary; was I interested? I was thrilled with the prospect. During my senior year, I had served a short term in the dispensary and conceived the idea that I would specialize in diseases of the eye; but in recent months I had become more deeply interested in gynecology and obstetrics. Therefore, without a minute's hesitation, I accepted both assignments. Then he gave me some sound advice: "Young man, you know a workman is judged by his accomplishments."

It was with some trepidation that I prepared to go before that graduating class of 1881, which included E. Wyllys Andrews, Frank Billings, Frank S. Johnson, Joseph Barnes Bacon, and others who were afterwards brilliant practitioners and teachers.

However, when I appeared in the large upper amphitheater of the College on the following Monday evening I was treated with the respect that was due to the Professor whom I represented. I knew the subject, and especially Dr. Roler's method of presenting it. And it is always easy to ask questions.

I had a few embarrassing moments when one of the brilliant students quizzed me on an intricate subject not touched upon by Dr. Roler in his lectures. I kept the respect of the class by frankly admitting that I did not know, and by asking the questioner to look the matter up and report to us at our next session. This he did, to the satisfaction of everyone. Meanwhile I had placed myself in a position to answer the question if he could not.

This happy series of meetings gave me some wholesome confidence. At the end of the semester Prof. Roler complimented and thanked me. Evidently he thought that "the workman was worthy of his hire."

V

Time was fleeting. We were in the midst of spring, and the hot weather would soon be upon us. There was another epidemic of typhoid fever. Potter, who had guided me and inspired me with much needed self-confidence, was finishing his interneship and establishing an office at 22nd Street and Michigan Avenue. It was the changing of the guard. With the passing of Potter, I assumed the senior position. The junior place was taken over by De W. Townsend who became my companion.

VI

"President Garfield Is Shot!" were the startling headlines in the papers of July 2, 1881. "He was on his way to attend the commence-

ment exercises at Williams College when he was shot in the Washington railway station by a disappointed office-seeker named Charles J. Guiteau, whose mind had no doubt been somewhat influenced by the abuse lavished upon the President by his party opponents." I felt that a great tragedy had befallen a friend. (President Garfield died on September 19, at Elberton, New Jersey, and was buried in Cleveland, Ohio.)

VII

In thinking over my future in the practice of medicine, I decided upon Minneapolis as the most advantageous city in which to make a start. Ella Guilder continued at the head of her father's household in that progressive city and was surrounded by a large group of influential friends. My plans would doubtless be welcomed by this dear cousin who had guided me years before when I was a prospective millwright.

I took a week's vacation from my hospital duties to look over the ground in the northern city, where I was received as a prodigal son. Even Uncle "Dock," in spite of his imperturbability, smiled a genuine welcome. I played for a week in the pleasant surroundings, and meanwhile sought a location. There was a fine office in a new building at Washington Street, about 14th Avenue, South, that would be ready for occupancy at the date of the termination of my service at Mercy Hospital. It met all requirements and I paid a month's rent.

There was much pleasant speculation about my future, and Ella was eager to be my guide and patron saint.

VIII

Mercy Hospital was at the height of the busiest season it had ever experienced. The wards and rooms were rapidly filled with typhoid fever cases of a desperate type. The daily rounds with Professors Davis, Hollister, Johnson, and Quine were a constant source of inspiration and profit.

In the afternoons I accompanied Prof. Jenks when he visited his private patients in the gynecological department. They were numerous and came from all parts of the Middle West. Fortunately there were

many obstetrical cases at night, which enabled me to try out my experiments with antiseptics.

The epidemic of typhoid fever became more and more severe, and it was making an almost prohibitive demand on the profession of the city. Daily the neighboring families called at the hospital for assistance of our doctors.

Sister Anthony, our friend (and especially my friend because I was the left-over of the duet that had been so helpful in the smallpox epidemic of the past winter), recommended me to look after some of these outside families, almost all of whom were in good circumstances, and expected to pay for services they received.

IX

The annual siege of hay fever suffered by Prof. Jenks was another misfortune that worked to my advantage. Beginning early in June, his attendance at the hospital became very irregular. He authorized me to give the tri-weekly treatment to his patients if he failed to appear at the appointed hour. He had observed my care of patients in the dispensary, and had noted that his hospital patients did not object to being turned over to an assistant.

As the summer wore on, Dr. Jenks decided that he would have to go to the cooler climate of the North, and he sought Sister Anthony's advice regarding the care of his patients. She asked him who had been treating them during his frequent, unavoidable absences, and he replied: "The senior interne." She suggested that he apprise the patients of the emergency, ask them if they would be satisfied with the recent substitute, and then act accordingly.

Thanks to Dr. Jenks' delightful personality, his suggestion was favorably received by the dozen or more patients, and not one of them left the hospital.

In the early eighties it was not customary for private patients in semi-public hospitals to pay the attending doctors for the services they rendered. The patients were assigned to a particular department, according to the nature of their disease, and received the gratuitous attention of the physician or surgeon in charge. The custom was unjust as many of the private patients were people of ample means. Fortu-

nately this practice has now been abandoned by all private hospitals. Of course then as now the hospitals and staff doctors were caring for hundreds of charity patients in the wards without thought of compensation.

X

Among Prof. Jenks' patients were eight or ten interesting women of education and experience, the better class citizens in the smaller cities of the Mississippi Valley, women who had the means to gratify their desire to enjoy better health. The responsibility of caring for these patients was a serious one, but I was determined to make good, and to leave no stone unturned to render satisfactory service. Up to this time, I had substituted for my chief during his temporary absences, and I had carried out to the best of my ability the minute instructions that had been given to me, without particular reference to the diagnosis of the case. Now I was in charge. The responsibility thrilled and stimulated me. Occasionally new patients entered the hospital, and with them I had no precedent and no prearranged instructions to follow. I had to make my own diagnosis, or call in more mature assistance.

It was interesting to study the multitudinous complaints and ailments of the majority of women. Why were our women semi-invalids, and their male companions healthy and strong? Were the women not as well born, and had nature discriminated and provided our mothers with weak bodies? Were the men alone entitled to strength and health and were women doomed to invalidism and ill health? Most young girls who were given their freedom could compete successfully with young boys in play and sports. Every thoughtful gynecologist was pondering these problems in the early eighties.

The little treatment room was on the third floor of the hospital, and my patients came there, one by one. They were carefully quizzed in regard to their symptoms, a history was recorded, they were examined physically, and their local conditions were treated. Why did they consistently complain of backache, of dragging, and of pelvic weakness? Why the exhaustion, and the anemic appearance? Why the indigestion and the stasis? Why the tendency to remain in bed and the lack of ambition? Why the childlessness? Why were they unable to enjoy long walks or any form of physical activity? Why were they unable to attend

to household or social activities? "Why is it, Doctor, that since the birth of my last child I have lost flesh; that I have no ambition or strength; and that I have lost my looks?" were frequently recurring queries.

Our books offered no concrete answer, so the conscientious doctor must find his own solution. Certain treatments seemed to give relief, but these measures were only palliative, and some of these women would return year after year. It seemed to me that we were not getting at the cause. Why were the organs of these women displaced? Why did they develop fibroid growths and suffer exhausting hemorrhages? What caused the weaknesses of which they complained?

Occasionally a woman would report that she had been much better since the previous treatment. Then again she would say that she had suffered so much that she "just gave up, took off her clothes, and remained in bed." Another would come in, discouraged and utterly fatigued. She had spent the day shopping in town at Gossages' or at Field, Leiter & Company. Discouragingly she would say she could not stand any exertion. Her only comfort was to remove her clothing and remain in bed.

These complaints, repeated day after day, made the doctor realize that his applications and supports had little curative value and the enforced sedentary regimen and rest in bed caused the women to gain weight gradually and to obtain temporary relief.

Was the prevailing mode of dress responsible for the invalidism of so many of our race of civilized women? Of course exhaustive thought and discussion had been given to this subject. On the few occasions when I made bold to inquire if it might not be possible that the tightly laced stays were partly responsible for the conditions that existed, the patient replied: "Certainly not. I would die without the support of my corsets"; or "Would you advise me to become one of those new dress-reform freaks, without form or style?"; or "You will spoil the little ambition that I have left if you take away from me my only support—my corsets."

Meanwhile I was developing skill in the delicate task of treatments, and establishing a reputation with my little coterie of patients as they gained in strength and flesh, and their backaches disappeared.

As the time for my departure from the hospital approached, Sister Raphael urged Prof. Jenks to return on or before the termination of my

service and the advent of a new senior interne. But he could not, with his hay fever tendency, risk the Chicago climate until after the first frost. My patients were in rebellion, and Sister Anthony was in a quandary.

The time arrived when I was to take my leave of the Mercy Hospital in which I had learned of the fascination and importance of the actual practice of medicine. I had been in close association with the leading medical specialists of a city that was already becoming a great medical-educational metropolis. It boasted of a number of hospitals that were rapidly growing. It already had at least two medical schools that had been organized many years, each being supported by an alumni, members of which were practicing their profession successfully in all important communities of the Mississippi Valley and the far West.

All this caused me to consider if I had not made a mistake in prematurely deciding on Minneapolis as the future home of my professional career. I had learned to love the great smoky city, and its fascinating inland sea—a city that was growing with bewildering rapidity. I was well established in a large dispensary practice. I had been forced by the city's two great epidemics of smallpox and typhoid fever as an assigned emergency doctor to do not a little outside service. I had made substantial acquaintances not only among the profession but among interesting laymen and women. I realized that I already had acquired a nucleus of a practice that would develop.

Why shouldn't I remain and take advantage of these opportunities? I was urged to consider the situation from many sides. However, a decision was at hand. It was a short but hard struggle, and it ended by the adoption of Chicago as my future home.

The tentative lease in Minneapolis was cancelled, and I rented an office in the Central Hall building at 22nd Street and Wabash Avenue. The suite comprised a waiting room, a small room for consultations, and a third room which I could use as sleeping quarters. My neighbors were De Laskie Miller, the noted obstetrician; Lewis L. McArthur, the future distinguished surgeon; Rufus Bishop, then professor of physiology in Northwestern, and other leading physicians. The building was well situated as that section of Wabash Avenue was then the site of fashionable boarding houses and several family hotels, among them the Southern and the Woodruff.

XI

Appreciating that one's living place and daily associates would determine the class of one's patients, I decided to seek out the best boarding house in the immediate vicinity of my office. There were several of this type. The well-known "Follansbee Block" of palatial marble fronts gave distinction to the whole neighborhood. Michigan Avenue at that point was lined on either side by delightful homes, and within a few blocks to the east were the residences of many of Chicago's most influential citizens.

But which one of the three most desirable hostelries should I select? I surveyed each of them—Mrs. Benedict's, Mrs. Fischer's, and the Lords'. Each occupied a large double house, four to six stories high, and impressive in appearance. Which should I storm first?

Two large markets—groceries and choice meats—on 22nd Street, between Michigan and Indiana Avenues, were patronized by the substantial people in that neighborhood. I went to McCauley's, sought the proprietor, and asked him if he supplied any of these three boarding houses. "Yes, sir, we supply all of them."

I told him I was a doctor (otherwise he would not have guessed it) and was seeking a place to live. "Which would you recommend?"

He laughed, looked me over, and said, "You can't go wrong if you get into any one of them. You know they are very desirable, and they have long waiting lists." He gossiped about the three places and described the characteristics of the women in charge. Something he said of the "two maiden ladies" who conducted 2225–7 Wabash Avenue, "the Lords" he called them, attracted me particularly. I was pleased with the name. It would be something to live in the house of "the Lords," one or more, and I would have more courage to "tackle" a couple of maiden ladies. So I decided on "the Lords'."

My interview was interesting. "Yes, Miss Lord is in. Who is calling, please?"

Proudly, but rather doubtfully, thinking of the long waiting list, I replied, "My name is Dr. Martin," and rather nonchalantly, "I was wanting to inquire about board."

Miss Emily Lord came to the door to have a look at the young doc-

tor. Yes, I wanted board; no, not a room. I lived on 22nd Street. Where? In my office in Central Hall. Why the frown?

Miss Emily was a large, good-natured, motherly woman of about a half century's growth. She asked me to step inside, and in the sitting room I met Miss Ellen, who was younger, thinner, and more business-like. "I am afraid we can't take you. Sorry, we are full."

Then entered Miss Nellie, a comely niece and the third of the triumvirate. Instinctively my sinking heart was aware that a friend had appeared. The third inspection was in process, and the reaction was sympathetic. A boy had arrived!

"Why, Aunt Ellen, we could crowd in one more at the Fields' table." Aunt Ellen frowned at the unbusinesslike suggestion of the young upstart. Big, good-natured Emily thought the suggestion "might work out." Rather reluctantly, the real manager decided to take me in, though I felt that it was only temporary—on approval. Anyway, I was accepted, after a narrow escape. The entrance of the junior member into the conference, backed by the motherly Emily, had saved me!

That evening I appeared for dinner. The dining room occupied the entire basement floor of the large house. There were at least twenty tables, accommodating from four to twenty each. To my amazement I was taken to the alcove table at the front, which seemed the most desirable in the room. My place was at one side, and I had a view of the street and also one side of the dining room.

A new face in that exclusive dining room was a curiosity and a subject for humming comment. I was introduced by Miss Nellie Lord to the group of eleven at my table, among whom I distinctly remember the John Field family, including a dignified matron, the mother, and an attractive sister of about my own age. Several advances were made to the young doctor in the way of conversation. I was impressed by the substantial appearance of the boarders, and the general friendliness that permeated the gathering. Five young men of about my own vintage were seated at a small table close by. They were a fine and lively set, and the relationship between them and the mature and middle-aged girls was very genial.

As I was leaving, Miss Nellie asked me to wait at the door to be introduced to "our young men." It was some ordeal, but I submitted and met the rollicking group, at least two of whom will appear often in the following pages. At that time they were just five young men: Ed Colell, Frank Bowles, James Chapman, Charles Nicola, and one other whose name is forgotten.

XII

The few patients who had come to me through my meager reputation were scattered in the boarding houses of the neighborhood. Immediately my new office took on the appearance of prosperity and enterprise. I was able to satisfy my patients, and as they were all rapidly improving, I was threatened with desertion. But all satisfied patients are propagandists. In those days women who were occupied with domestic tasks at home occasionally "bragged" about their doctors and their interesting ailments. These women had much time for such discussions, and some of them convinced their hearers. I was distinctly encouraged to find myself with new patients. Only a few days after my office was opened I was consulted by first one and then several of the servants of "the Lords'," and within a month by one of my landladies.

I spent two afternoons each week at the dispensary clinic of the Chicago Medical College treating from ten to fifteen women each afternoon and explaining their ailments to several undergraduate students. This was stimulating work which carried with it a certain distinction. Prof. Jenks occasionally looked in upon his assistant and expressed himself as satisfied.

Thus the eventful year of 1881 drew to a close.

8

1882. MOSTLY EXPERIMENTS

I. Tutoring. II. Scientific Meetings. III. The Growing Practice. IV. "He Laughs Best Who Laughs Last." V. Interest in Gynecology. VI. An Interlude.

I

With signs of increase in my practice, I began to augment my responsibilities and outside activities. There seemed to be no end to my endurance, and it never occurred to me that there could be.

One of the young men of the medical class of 1881 had failed in his final examinations. He had a fine presence, was socially attractive, interesting in conversation, and apparently intellectually brilliant. But he had been unsuccessful as a reader of medicine. The young man's father, a man of affairs, was grieved and humiliated, and he came to Chicago to investigate. The teachers were all interested in his son and spoke highly of him, but revealed the fact that the young man had failed in four subjects. They suggested that if he would study under a tutor, they would re-examine him whenever he was ready to make a trial. The father brought the boy to me and said, "Do you think you can get my son through his studies, and aid him to receive his diploma?" I told him that if the boy would play the game with me I was sure we could succeed.

He replied, "I think my son has been thoroughly aroused to his disgrace and that he will obey orders."

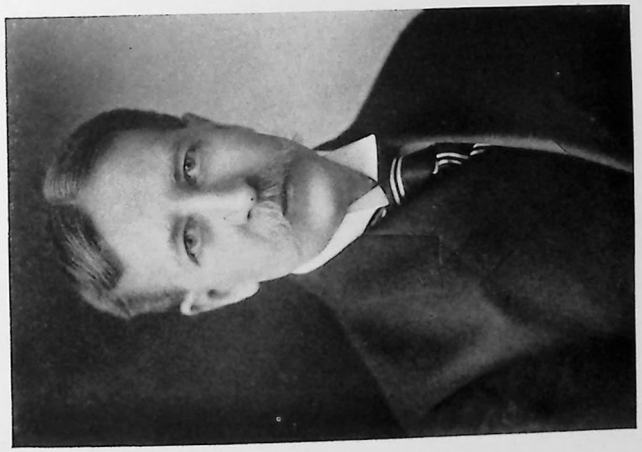
The young man had been one of my junior classmates, and I admired his many charming qualities. As we endeavored to work out a time arrangement, I explained that every morning I attended Dr. Brower's clinic at St. Joseph's Hospital on the North Side, about ten miles away, and at present my afternoons and evenings were occupied until nine o'clock. The father was rather discouraged, and disappointed that my



"NICK"



"HANK"



"JIM"

busy life would preclude my taking on the important assignment, after I had sold myself to him. I eagerly reassured him that I could give his son from ten to twelve o'clock each evening. This arrangement he promptly accepted.

Not being a good business man, I often wondered during the next three months, when my job became somewhat irksome and nothing definite was arranged about compensation, whether I had not been too generous.

But night after night the boy was on the job. I was amazed at his progress. Anything that had been told to him in conversation he would repeat in better language than I could possibly have used. At the end of three weeks we were much elated when he was satisfactorily passed by one professor whom I had arranged to have him meet. We stuck to the grind and within three months my pupil was boosted over the several hurdles, and formally passed by the faculty.

"Well, now, Doctor, what shall I pay you?" was the father's first businesslike remark, after preliminary compliments. I could not bring myself to put a financial estimate on something that seemed to me but a friendly act, and I intimated as much in my reply.

"Oh, nonsense," he said. "Business is business and I am ready to compensate you for doing a handsome job."

Then I muttered that I would leave it to him. I realized that I needed the money, whatever the sum might be, but I just could not cold-bloodedly name a concrete sum. I now suspect that he was trying to teach me to put some spunk into my business attitude. He knew how to do it, for he frankly said that he was not in the habit of forcing money on one who had sold him something.

With all of the courage I could muster, I blurted out, "It ought to be worth one hundred dollars."

His reply indicated that it certainly was worth that and more to him, whereupon he opened his pocketbook and peeled from a fat roll a *one-hundred-dollar bill* and handed it to me. So much money in one bill looked like a fortune. I was abundantly satisfied, and murmured my thanks.

The pampered son was graduated, the fond father from the "nutmeg" state had made his bargain with the inexperienced doctor and paid his bill.

II

It was during this year that I became a silent listener among the half dozen or dozen members who attended the regular meetings of the Chicago Medical Society. Though it had been established in 1836, and was then (as it is now) the official medical organization of Cook County, it had a mighty struggle. But there was one faithful attendant who sat in the front row, Dr. Gerhard C. Paoli, who was always ready to discuss every paper, and who had the ability to impress his broad knowledge upon the younger doctors. He was the "Nestor" of the society, and commanded the respect of the few older men who at infrequent intervals scatteringly attended these meetings.

III

With my limited experience, I was realizing that the most successful practitioners of medicine were those who gained the confidence and cooperation of their patients. This presupposed a personal interest in the patient's condition, painstaking discussion of the diagnosis arrived at, and of the treatment considered necessary.

The true practitioner must not be too disinterested, too mechanical nor too academic, and he must have a soul. I was always more deeply interested in my patients and their condition than in anything else, and I endeavored to make the task before me a real game with competitive aims.

It was a gratification to find that the people, including the servants and waitresses at "the Lords'" were looking upon the young doctor as their friend. Each day one or more of them came to my office to tell me of their backaches and their headaches. My discussions with the group of women who appeared at luncheon tended to promote friendships and unearth new patients.

One night I rushed to the boarding house in response to an emergency call. The head waitress was writhing with severe abdominal pains, which she explained were a more or less regular occurrence. I gave her a hypodermic of morphine (the coal-tar products of this day had not yet been discovered) and asked one of the maids to prepare a large "one to six" mustard plaster.

This fat poultice was placed between protecting cloths and applied with care. I did not want to abandon my distressed patient in the dead of night, so I pressed my hand over the poultice and proceeded to doze off to sleep. Every few minutes I roused myself and asked her if it burned too much. "No, it doesn't burn at all, but it makes me feel much easier." (The morphine was doing its work.) However, the mustard plaster with the warm, manly hand continued to supplement the sedative action of the drug. As the pain subsided, I excused myself—to the accompaniment of profuse thanks from a grateful patient and a staunch friend, and returned to my downy bed at my office.

As I entered the dining room the following morning, with the air of a hero who was not averse to rendering service to a servant, there was a general titter of voices among the female contingent. It did not savor of applause, but distinctly of derision; and unquestionably it was directed toward me. The head waitress, my patient, looked pale and distressed.

She followed me out of the dining room to tell me that the careless maid, our assistant of the night before, had used a Dalmatian insect powder for the poultice instead of mustard, and that she had "blabbed it to the old hens, the boarders." I was glad that I had left the dining room.

IV

However, in my humiliation I found food for thought. How had the mistake occurred, and might it not occur again? Where was the insect powder kept, and did this same waitress prepare the mustard that was served at our table? An investigation was in order.

At the luncheon hour, the table through the center of the dining room was filled with the charming women guests who, like friendly vultures, were ready to alight on the one lone man who was usually favored by their pleasant companionship at the noonday meal.

The brave man was greeted with joyful applause as he took his seat at the center of the long table, flanked to left and right and opposite by the young and old females of the Lords' hostelry.

"Doctor, tell us all about your midnight visit."

"Ladies, I am not supposed to discuss the secrets or even the ordinary occurrences of the sick room with the general public."

At this point Miss Emily Lord came gleefully forward and told the

story of the substitution. This released me from any responsibility of protecting the household from the dire consequences.

I asked the head waitress to pass me the mustard. I dipped out a small portion on a spoon, cautiously tasted it, and exclaimed, "Why, I asked for mustard. I am quite sure that this is not pure mustard, it is too weak"; and to one of my exultant neighbors, "Taste it."

I pushed back my chair and went to the kitchen. "Show me where you keep your supply of mustard." The waitress pointed to a large cupboard, filled with miscellaneous bottles, among them one labeled "Dalmatian Insect Powder" and near by another labeled "Colman's Mustard." I took both bottles (it was, I know, a ruthless and unforgivable act) back into the dining room and handed them to Miss Emily. She took them without a word and disappeared. The next day the mustard pots in the dining room contained fresh mustard. Unfortunately, as history records, all substitutions of drugs have not proved harmless jokes.

V

Circumstances had led me to abandon ophthalmology as a specialty, and in my spare time I read the current journals dealing especially with gynecology and obstetrics. Due to Byford, Emmett, Sims, Battey, and others, obstetrics and gynecology were more distinctly separate specialties in the early eighties than at any time before or since. During the succeeding twenty years gynecology became the paramount specialty, and included all pelvic and abdominal surgery.

In the dispensary, where I was brought into closest touch with gynecological work, I had opportunity to perform a number of minor operations on patients who could not gain entrance to the free wards of Mercy Hospital. Though this service carried no remuneration, I enthusiastically embraced it. If the operation was to be performed at the patient's home, it was customary to convert the kitchen or sitting room of the little cottage into an operating room, using the kitchen table as the operating table, the wash boiler on the kitchen stove as a sterilizer, and the cooking utensils as receptacles for instruments, sponges, etc.

Sunday mornings were frequently selected for these important functions, and my neighbor doctors—Potter, Bishop, McArthur, and Coey—gladly volunteered as assistants, anesthetists, orderlies, and

operating room nurses. In those good old days surgeons developed and were not made to order as in more recent times. One learned his surgery by seeking out emergency cases—those in which the diagnosis was self-evident and which did not call for superior judgment. Surgical cases were not a matter of selection. When the obscure diagnosis was thrust upon the practitioner, he either declined the responsibility or he had to accept it; and then he had to nerve himself to tackle the case.

There were very few transcendent surgeons whose operations one could witness. The Emmetts, the Byfords, the Sims, and the Batteys were limited in number. They wrote books and papers, illustrated their articles by drawings, and clearly described their technique; or they reviewed the cases and indicated those in which operation was advisable. Those of us who were interested in gynecological surgery literally learned it by operating on our patients; and only a few of the group perfected a technique and became skilled in this specialty.

VI

A young man from Wisconsin who had graduated from the Chicago Medical College in 1881 and served his interneship in Cook County Hospital—his name was Frank Billings—was either ambitious to become a surgeon or had one of these emergency cases thrust upon him; at any rate he planned an operating function for a Sunday morning.

The consultants, anesthetists, assistants, spectators, and hangers-on were carefully selected. I believe a young man by the name of Lewis L. McArthur was the first assistant, and I was chosen as anesthetist. Among the spectators was one captain of industry—C.K.G. Billings, a cousin of the operator. We all repaired to the scene of operation, a hovel in the Ghetto district, on Maxwell Street near Halsted, where the patient lay in his misery. His large, glassy eyes peered at us as his cadaverous body was uncovered, revealing a swollen knee. The diagnosis was "tuberculosis of the knee joint," and his leg was to be amputated.

The operation was skillfully conducted, and the anesthetic, needless to say, was scientifically administered. No surgical spectacle is more impressive than the amputation of a leg, and this performance was no exception to the rule. The spectators were duly impressed, especially the captain of industry who was filled with pride and exultation at the

skill (and especially the nerve) of his young cousin. The rest of us, with our broad experience of a year or two, nonchalantly treated it as an every-day occurrence, and as a feat that might entitle the operator to become an eminent surgeon.

"Now," said Mr. C. K. G. Billings, "you must all be my guests at luncheon and dinner, and we will go to a show."

In some west side restaurant we were abundantly provided by our generous host with food and beverages, delicious smokes, and the high-class badinage of the period.

Then our host announced, "A brilliant young actress is singing in one of the Gilbert and Sullivan operas at the Academy of Music, which is close by. Shall we see it?"

There was joyous enthusiasm among the other guests, but the anesthetist of the great drama of that eventful day, though he yearned for the pleasure that the performance promised, realized that it was definitely against the teachings of the time. So he murmured something to the effect that he feared he would "have to leave" and that he had "an engagement." The persuasive powers of the host, however, were too much for the puritan weakling, and it was decided that the group should hang together.

All who are familiar with the brilliant music of the Gilbert-Sullivan operatic gems can appreciate my unbounded joy. I might be risking my chance to play on a harp, and to sing an angelic song, but I was willing to throw in my lot with the prima donna, not only on earth but for all eternity.

On our way to the South Side, after a midnight supper, we stopped in to see our Ghetto patient. He was still alive and our youthful hearts were glad. Mr. C. K. G. Billings, in fact the whole Billings family, had done a great day's work.

9

1883. LIFE'S GREAT EVENTS

I. "Jim," "Nick," and "Hank." II. Stepping. III. More Serious Business. IV. Affluence and Organization. V. "The Chicago South-Side Medico-Social Society" (Later "The Chicago Medical Club"). VI. Something Happens! VII. Microscopical Observation. VIII. Sublimity, Despair, and Sublimity. IX. Ecstatic Transition. X. "Yes, Miss Hollister Is at Home." XI. A World of Literature. XII. A Conspiracy. XIII. Work with Renewed Ambition. XIV. The First Abdominal Operation. XV. The Fatal Result.

I

As I was on my dignity at the beginning of my life at "the Lords'" boarding house I was much perturbed by the banter of the several young men who were living there. Every time I entered or left the dining room, they good naturedly called to me, "Hank, how are your Prairie Avenue patients?" or, "Have you cut up any stiffs lately?" or, "Why don't you patent that famous mustard plaster?"

But as the days went on real friendships developed. James Chapman, assistant note teller at the First National Bank—"Jim" we called him, shared a room with the young lumberman, Charles Nicola—"Nick." One Sunday Nick and I went with Jim to Plymouth Church, which we occasionally attended, and where we heard the famous missionary, Rev. Dr. Henry Martyn Scudder. After the service we were introduced by Jim to several young ladies—Ada Boyden, whom Nick had known years before in Cleveland, Helen Farwell, and several others. Jim, as secretary of the Plymouth Sunday School, had been making some choice girl acquaintances, and it did not take us long to guess that of the bevy of young women Miss Farwell was his prime favorite.

He then took us to the chairman of the pew committee and said he

thought we ought to have sittings. As the result of good salesmanship, Jim, Nick, and I secured three sittings in a very desirable location of the church. This proved a very advantageous move, as the church, under Dr. Scudder, was most popular, and pews were at a premium. We became regular attendants. Much pressure was brought to bear upon us to join a Sunday School class, but we were not particularly intrigued.

Nick was deeply interested in the beautiful Miss Boyden, and it soon became so serious that even we, his intimate friends, dared not "josh" him about it.

There were dozens of pretty girls all about us, and my friends were more or less ardently attached, but I seemed to be left out in the cold.

II

About this time it occurred to me that some of the accomplishments of polite society might become an asset to the young doctor. Bourniques' Dancing Academy, then on 24th Street and later on 23rd, was considered the proper place to perfect oneself in the terpsichorean art. Although I was a trifle older than most of the pupils, I was accepted with a new group by Mr. and Mrs. Bournique. But not for the world should my friends know about it!

Dancing proved a decidedly recreative sport. My whole life had been spent in active outdoor exercise, and my health and spirits were best when I was engaged in some physical activity. My habits for several years had been more or less sedentary, and at times I became restless and "stale." But the days following my nights at these dances found me with all of my old keenness for doing things, and this, supplemented by long walks in the open, kept me reasonably fit.

There was the usual day of reckoning. Some young lady of the dancing class reported to one of my friends that his friend, the doctor, was attending Bourniques', and I was severely "ragged" for some time.

III

Three times a week I traveled the length of the city, ten miles in each direction, in the old horse-drawn street cars that were without heat or ventilation, to attend the neurological service at St. Joseph's Hospital.

I was interested in Dr. Brower's work, as it opened a new line of thought. In a primitive way we tried to put into effect the teachings of Weir Mitchell, who had but recently introduced the treatment of nervous diseases by means of his famous and much lauded "rest cure," supplemented by feeding, massage, and electricity—now known as physical therapy. As only a few individuals were qualified to perform massage, and as English literature on the subject was extremely limited, with unabated zeal I decided that it was my duty to supply the deficiency.

Our libraries were not equipped for extensive medical research. Perusal of various encyclopedias and systems of medicine revealed a basis of fundamentals, an outline of the movements in massage, and a French vocabulary that described the movements. Then followed prolonged quizzes and observations of our few Swedish masseurs and masseuses to bring the laborious work to the point of acceptability. The finished literary effort was submitted to the *Chicago Medical Journal & Examiner* and to my great joy and pride it was accepted for publication,* and reprinted in pamphlet form. It exploited the proud author in the following terms: "Massage—Its Application."

Prof. Brower had reviewed the manuscript several months before, praised the authorship, and asked me to prepare a report of an interesting case of brain tumor that had been cared for under our efficient department. (The patient succumbed.) The article was published in the *Chicago Medical Journal & Examiner* under the title: "Case of Epileptiform Convulsion and Paralysis Due to Syphilitic Tumor of the Cortex in Motor Area,"† by Franklin H. Martin and D. R. Brower.

IV

Affluence and organization may be relatively small matters, but in the life of the busy young doctor they were important. Potter always inferred that McArthur, DeLaskie Miller, Bishop, Randolph, and I—the group at 22nd and Wabash—were, as he put it, in "Prosperity Hall," and he wanted to get into the swim; so I took him into my office. This necessitated our taking a room at the Lords' for living quarters.

*1883, xlvii, 26–34.
†1883, xlvi, 21–28.

Thus Potter became one of us at this desirable abode and he soon was a great favorite.

My acquaintance was broadening. John Field, his mother and sister; Mr. and Mrs. Alexander Lewis and their young son Harry; Mr. and Mrs. David Moore and their son; Prof. and Mrs. Samuel Leland with their infant son; and many others were my close friends, and not only accepted me as their family doctor, but sent many of their influential friends to me. During the evening hours I looked after the health of a group of men engaged as managers and laborers at a near-by industry, and also the members of their families. It was an interesting experience and not at all undesirable from a financial standpoint. Almost every week I cared for one or two confinement cases in these families of moderate means.

V

One day Dr. Edmund J. Doering, who was practicing on Indiana Avenue, came to my office and suggested that we organize a medical club for the mutual benefit of the group of young men in the neighborhood. It was to be an exclusive, *de luxe* affair; and should "include only those approved by our charter members." The matter had been discussed with only one other prospective member—Dr. Henry T. Byford. I was for it, and asked that Potter be included. It was forthwith organized as "The Chicago South-Side Medico-Social Society"

"on the second day of May, 1883, for the promotion of good fellowship, harmony and union among its members; for the advancement of medical science, and for the maintenance of a high professional standard. The Constitution and By-laws . . . were unanimously adopted and subscribed to by all the charter members, as follows:

E. Wyllys Andrews
C. C. Beery
Henry T. Byford, First Vice-President
Edmund J. Doering, President
Frank S. Johnson
Franklin H. Martin
Lorenzo T. Potter, Secretary and Treasurer
D. A. K. Steele, Second Vice-President.

"The names of readers of papers at the Club meetings were settled by ballot. Dr. Martin was directed to read his first paper 'Sterility in Women,' in August, 1883. . . ."

Other members of the Club, admitted in subsequent years, were:

Charles W. Purdy	(1883)	Junius C. Hoag	(1887)
Frank Billings	(1884)	James Burry	(1888)
Lewis L. McArthur	(1884)	Otto L. Schmidt	(1890)
Rufus W. Bishop	(1884)	Archibald Church	(1891)
Frank T. Andrews	(1884)	John Ridlon	(1893)
Joseph Matteson	(1885)	Arthur Dean Bevan	(1894)
R. N. Randolph	(1886)	Harry B. Favill	(1897)
Frank Cary	(1887)	James B. Herrick	(1900)

The early sessions were held at the Southern Hotel, 22nd Street and Wabash Avenue. For twenty years we adhered to the following specific rules of conduct and of procedure, prescribed by our leader, Doering: Dinner at 7 o'clock sharp; formal dress and white tie (dinner coats were not yet in vogue and many of us had to purchase dress suits to meet this requirement); after dinner a scientific paper on some medical or surgical subject was presented by a selected member, and every other member was required to discuss the paper for at least five minutes, and without notes; parliamentary rules were insisted upon.

We took ourselves very seriously. The drilling to most of us, who at that time were not accustomed to public speaking, was of inestimable advantage. The first contributions to medical literature by the charter members were laboriously prepared, and presented before this Society. The material compared most favorably with papers that were being given before local societies of organized medicine. Therefore our leader, by "unanimous consent," would inform the proper authorities of these societies that: "So-and-So, a brilliant young man, has prepared a paper of unusual interest and should be invited to present it at one of your meetings"; and the suggestion was usually carried out. When the "brilliant young man" appeared before the Chicago Medical, the Chicago Gynecological, or the Illinois State Medical Societies, and later the Chicago Surgical Society, to read his paper, our chief, Doering, ordered a half dozen or more of our exclusive group to be on hand to discuss the essay, and with enthusiasm.

We were an iron-bound, enigmatic group, and for over thirty years our secret was maintained inviolate, and the societies we attended were unaware of our unification. Our well-prepared papers, and the carefully worked out discussions, however, became a matter of com-

ment and congratulation, and our individual orators and their associates were urged to accept membership in the different societies. Apparently we had started something that was advantageous because of its wholesome self-discipline, and its effect on organized medicine of our community.

VI

There was to be an amateur play at the little hall on the South Side. It was a private affair, given by a club, a select group of young people residing in the vicinity. I was an outsider, but Miss Helen Farwell had invited me to attend the performance. We were accompanied by Jim Chapman.

The production, while ordinary, was full of rollicking fun. Soon, however, I discovered at least one histrionic star in the cast—a young girl in the rôle of a parlor maid. She was ever present and seemingly unaware that she was making a hit. A serious moment arrived when at the height of the play the hero seized her, presumably to bestow the usual stage kiss that had been well rehearsed, but instead imparted the real article upon her saucy lips. Quicker than a flash (not as rehearsed), apparently in a rage she gave the daring hero a smacking slap, and fled from the scene. The audience clapped and laughed and cheered, to the discomfiture of the hero who was left in a quandary in the middle of the stage. The cheering subsided, for unquestionably an encore would not be forthcoming.

I could not disguise my enthusiasm for the little nonconformist, and asked my hostess, "Who is she?"

She answered, "Why, don't you know her? She is Belle Hollister, Dr. Hollister's daughter, who has just returned from school. You should meet her." With enthusiastic inward acquiescence, and determination that the last statement must become a reality in the not distant future, I silently agreed.

VII

It was nothing more nor less than a reception at the Calumet Club, given by lay citizens to the State Microscopical Society, composed of individuals who make little things big. There were interesting exhibits portraying the marvels of the microscopical world of the early

eighties, as, for instance, the multitude of "dragons" that subsisted on a piece of fig.

When they were satiated with microscopical wonders, the men, women, and near scientists sought more pleasurable entertainment in the big ballroom. As I wandered around, Dr. E. Wyllys Andrews took my arm, and in his usual drawling way said, "I want to introduce you to a girl," and before I realized what was happening I was being presented to the parlor maid of the amateur play. I turned, but Wyllys had disappeared. Somewhat overcome by this sudden good fortune, I was thinking, "What shall I do?" when my new-found acquaintance suggested, with an amused expression, that we might dance.

So this was the little girl, with a pigtail hanging down her back, that I had seen coming and going with my professor of pathology, Dr. Hollister, three or four years before when I was a medical student!

Our dance was not a success. We did not fit. Our feet disastrously failed to coördinate. Regretfully, I thought the maid was laughing at my clumsiness and suggested that we walk. This proposal was apparently welcomed, and we wandered to the large library on the second floor, and ensconced ourselves in a little bay window. My companion was engaging. My interest rapidly developed into profound admiration. Whatever subject was discussed aroused positive disagreement —an unusual contest of wit and of controversy.

Presently the strains of music could be heard. My companion said, "Oh, I must go. I have promised this dance," to which I replied, "Let him find you," and we talked on—time forgotten. Later, through the curtains of the doorway leading to the library I saw my respected professor of pathology enter the room, make a quick survey as though seeking someone, and disappear.

My companion sprang up and said, "There is Papa looking for me. It must be late," and it was. We went at once to the reception room, where we greeted the father and mother, who evidently had been somewhat impatiently waiting to go home.

My respected professor was not over cordial, and his wife was rather reserved, I imagined, when I was presented by the daughter with, "Mama, this is Dr. Martin."

The scene was not prolonged. The young lady waved to me with a

roguish gesture as she entered the carriage, and the door was closed by her father with what seemed to me unwarranted force.

During our social intercourse, which had evidently seemed long to the parents but all too short for me, I had made manifest to my companion my ardent desire to call upon her and continue our acquaintance. This had elicited the information that the family was starting the next day upon a long trip to the Yellowstone Park, as the guests of Mr. Rufus Hatch, an influential official of the Northern Pacific Railroad and the President of the Yellowstone Improvement Company, and she did not know when they would return.

Was this interview, so auspiciously begun, to be so unsatisfactorily terminated? I must not be left in uncertainty, so I said, "I suppose you will return some time, and then may I come to see you?"

"Well," she replied, "it would not be polite to turn you out." And this was the only crumb of encouragement that I was able to extract from the tantalizing maiden.

VIII

The young doctor had been stirred to the depths as never before. He considered and pondered and was left with a feeling of despair. He was not entirely without experience. That he admired attractive women and was susceptible to their charms, he could but admit. He had suspected that his heart had been well nigh captured, if not irretrievably so, on countless occasions, but this time it was different; it was absolute. Within twenty-four hours he realized that he was hopelessly in love.

He found himself an impecunious doctor on the threshold of a profession that at best could never bring affluence; he was without social or financial position or influence, and had no background of culture, of personal charm, or of family prestige; a middle-aged man of twenty-six desperately in love with a brilliant girl of eighteen, a young woman who had been surrounded with comfort as the only child of a most respected teacher who had won an international reputation in his profession, a citizen known and respected in church and society; a man of great eloquence and literary ability, a practitioner who was universally loved and respected, a man who had access to everything that was desirable, a father strong and inflexible in character.

All of this at a time when the object of my thoughts was flying over the western prairies in Mr. Hatch's palatial train surrounded by all of the intimacies and attractions of such an outing. It was intolerable! I had been admitted to a short hour of happy intimacy, and then probably forgotten. Why think about it at all, why be a fool? Go back to my work and forget it!

But that was easier said than done. I couldn't forget. I didn't want to forget. I wouldn't forget. At least, I had a right to *remember*. Then when this depth of despair had been plumbed something in me rebelled and, "I must win!" It was a hectic summer, with a delicious background of dreams.

I had no definite way of knowing when the maid would return, but in the back of my mind I was counting the days. I carefully watched the press notices.

In desperation, I telephoned to the home to which she was returning —some time. "Yes, this is Dr. Hollister's house. No, he is not at home; he will be away a long time," said a faithful maid.

I attended Plymouth Church each Sunday, early and late. But my quest was unrewarded.

Then one day definite news filtered through to me. The wanderers were returning. Again I ventured to telephone.

"Yes, this is Miss Hollister." Blessed voice!

"I am Doctor Martin. I want to come down and call on you some evening. May I, and when?" I was so anxious, and I got it all in; and I am sure there was an impelling tone in my voice.

"Yes, of course. How about Friday evening? I have a young friend from the East with me whom I should like to have you meet."

There was no hesitation in my reply. "Delighted!"

It was done. The thing that I dreaded and feared to do, lest my request be denied, was accomplished. I would be received, and I was *not* forgotten. I was crazed with joy and beside myself with anticipation; and the immediate exultation left no room for doubt of outcome.

IX

How easy it was to work now! Everything I attempted was backed by an impelling inspiration. My dispensary work, my students, and my few but faithful patients must have noticed a change in my at-

titude. The group at the Lords' boarding house, the Lewises and the Moores and especially the boys—Potter, Jim, Nick, Adonis Bowles, must have thought that I was in a state of ecstatic transition. I soared in a veritable paradise during those few days.

The contrast with my mood of the preceding months was noticed. "The Doctor must have a new patient," came from some. "Hank is a bigger d—— fool than ever," came from the scalawags, the "lusty four" who loved to puncture my dignity. And some of the maiden ladies, whom I delighted to hector at luncheon, even suggested that "The dear boy is in love."

We were literally one big family in that boarding house, and no one escaped gossip—the blessed privilege of such a place. And, after all, "the Doctor" had been there for two years, and he was "*the Doctor*," and at that particular time something had happened to him and joy was all about.

X

I got off the street car; I was on my way down University Place; at the end of the street was the Hollister home with its polished columns, and the welcoming lights in the entrance; I was approaching the dignified residence, with its flower garden and its stables, and my old timidity was attempting to hold itself within bounds. What a nice neighborhood it was, the lake only two blocks away, a monumental building—the Chicago University—only across the street. I walked up the steps, and rang the bell. A piano was playing, and there were voices and laughter.

A maid appeared. "Yes, Miss Hollister is at home." I was actually in the hall; I was cordially greeted by Miss Hollister. "Drop your hat and coat and come in and meet my friends."

"Miss Looney, may I present Dr. Martin; Miss Fuller, Dr. Martin; Mr. Wheelock, Dr. Martin; Mr. Lawrence, Dr. Martin."

Miss Looney, a very pretty girl, was at the piano, and over her hovered Mr. Wheelock, called "Harry," a handsome young man with large brown eyes and a nice mustache, who seemed very much at home. Dainty Miss Fuller was entertaining Mr. Lawrence.

"You must help us. We are trying to work out some music. Of course you sing, or possibly you play."



MEMBERS OF THE CHICAGO SOUTH-SIDE MEDICO-SOCIAL SOCIETY

Otto L. Schmidt, Rufus W. Bishop, E. Wyllys Andrews, Frank S. Johnson, James Burry, Archibald Church, Junius C. Hoag, Lewis L. McArthur, Joseph Matteson, C. C. Beery, Lorenzo T. Potter, Edmund J. Doering, Franklin H. Martin, John Ridlon, Frank Cary, Frank Billings, D. A. K. Steele, Henry T. Byford, Frank T. Andrews

The pretty thing continued at the piano, thumping the keys, and there was no one to listen to my protest or even to answer.

"Oh, Gene, sing." So Gene sang

"Just a little bit of string
Such a tiny little thing
Tied as tightly as a string could be.
Help him put his slippers on
And be sure his boots are gone
Then you've got him on the string you see!"

It was a rollicking little song with a catchy accompaniment which made one long to fall on one's knees and be tied by the silken cord of the performers.

We had to hear the wonders of the marvelous trip; the descriptions of some of the English boys who had brought their bath tubs; the cowboys; the bears in the wilderness, helping themselves to the half-cooked breakfast; getting lost with somebody called "Arnold"; the thirst that was desperate; the near sunstroke, the rescue by a guide, a sip of water and Jamaica ginger from Mama's medicine bag, as too much cold water was dangerous; and the final exchange from pony to wagon for the rest of that day's trip.

Harry had to tell what he had been doing. Gene had to sing for me just once more "Just a little piece of string." Of course I had been very busy attending to my professional duties "sawing off legs and robbing graveyards."

Harry asked, "Belle, of course you are going to the ball."

Belle was noncommittal; and, more anxious than Harry, was another to know not only about the party, but where it was, and other things that he felt it might be a little premature to investigate too persistently.

Finally there was a stir in the entrance hall and "Papa and Mama" passed on through into the back sitting room. Mrs. Hollister, as she passed, smilingly spoke to "Grace," "Harry," and "Gene." I was curious.

After a little, when Father and Mother were making themselves comfortable in the rear sitting room adjoining, the daughter called out, "Papa, you remember Dr. Martin?"

My honored professor came in and shook hands with me and called

me "Doctor" and his refined and attractive wife also pleasantly acknowledged the introduction.

After a delightful little repast in which we informally raided the kitchen, the ice box, and the large dairy in the cellar where we ruthlessly drank milk and cream, ate chocolate cake, and then played like children, Harry and I walked to the car together. I was elated, although I did not have a private word with my lady; but some way I felt sure that I might be considered in some degree worth while as one of the "also rans" in her flock of lambs.

I managed, during the succeeding weeks, to have an occasional word with the young lady after church, and once at a ball where I proved a better dancing partner than I had on the first occasion. Once or twice I walked with her, as she preferred walking from church on fine days to riding in the family carriage. I was encouraged to believe that my companionship was not entirely unacceptable. Each stimulated the other, and our discourses were rather more nearly sparring matches than nice, conventional, social conversations. She was the ladies' maid of the amateur performance rather than the "good little girl" that I had pictured—the society débutante. Meanwhile I fell more and more hopelessly in love, but I had no language and no courage that enabled me to make my feelings known. I suspect that she might have sensed it by the language of my eyes, but there was never a sign of encouragement in response.

One day I ventured to send her a note. It was not answered in kind, but at our next interview she acknowledged it. I invited her to one of the society balls that her set attended. She had already accepted an invitation, but she might squeeze in a dance if she were present and sufficiently urged before it was too late. A reproach for not having extended my invitation earlier was my interpretation of this subtle little fling.

I called several times and was welcome. When I paid my respects on New Year's Day, I met a bevy of young women and men known as the "Tea Set"—a picnic club, and I recognized that they were sizing me up as an outsider. There was a brotherly-sisterly intimacy and comradeship that I felt I could never share. However, it was gratifying to be received cordially by the one who to me was most worth while.

XI

The young lady visited in the East after the holidays. At any rate, several favorite young men who were omnipresent at the few meetings and gatherings that we both attended were deprived of her immediate companionship! It was incomprehensible how any of them had let her escape.

During the few weeks of the eastern visit, my work again received attention. I did find time to write a few letters to the East, which received brief acknowledgment and scant summaries of gay times, late nights, and many friends; not altogether encouraging.

On her return I redoubled my attentions. We had many walks from church and mission, and these functions, a Godsend to the forlorn lover, seemed not wholly unwelcome to the lady. I was a guest at one or more teas and dinners at the family home, and she was my companion at a few theater *tête-à-têtes*. On one of these occasions, when I asked her to attend a theater with me, I was definitely called down.

"Yes, I will go with you on one condition, and that is that you take me on the street cars." (I had been calling for her in a coupé, drawn by a beautiful span of white horses.)

I protested, but she had made her decision.

"I don't believe that a young doctor or any other young man has a right to indulge in reckless extravagance when his income from his business or profession can't possibly warrant it. I don't approve of young men who idly cool their heels and let their fathers foot the bills." This was reassuring, as it was a protest against my thriftlessness; but I did resent the insinuation that I was recklessly spending a rich father's contribution toward my support. So except on unusual occasions the white horses and cozy carriage remained in the livery stable.

This should have been an encouraging indication that my quest was progressing, but I concluded that she did not wish to place herself under too great obligations to me. Wasn't it remarkable, I thought, that a young girl who had possessed every comfort in the world since her birth should think of the expense of carriages and luxuries that were provided for her own pleasure? She was even more wonderful than I had dreamed.

These experiences strengthened a most interesting comradeship.

Sometimes it actually seemed that she was sympathetic to my sentimental expressions, which were not always too subtle in my desire to just take her "whether or no." She was an intellectual treat to my starving soul! Her merry wit and fun, her spontaneous laughter at some of my foolish and strange breaks, her enjoyment of life, her genuine love of the theater and entertainments, and her appreciation of the best of everything, filled me with a new joy. The realization of her worth was making me a better, a stronger, and a different man. It could not be terminated, and I was more and more determined that it should not be.

Almost imperceptibly, with ups and downs of encouragement, I had reason to be hopeful. The Theodore Thomas symphony concerts at the Exposition Building were occasions for outings together, and in the summer evenings long walks after the performance along Michigan Avenue, then the street-car ride, and real bread and milk and chocolate cake to conclude a marvelous evening. It was a new world. Then there were serious conversations about music and books, and here I was in deep water and had great difficulty in sustaining my part, because of my dense ignorance. At first I imagined that my shortcomings were not discovered, and later I suspected that I was being subtly educated.

"How do you like Carlyle?"

"Which Carlyle?"

"Why Thomas Carlyle, of course."

"Why he must be all right if he is a friend of yours."

"Don't be foolish." And away she rushed and brought back a pocket edition of "Sartor Resartus." "Have you read this? If not, take it home with you."

What a relief. It was a book. Why, Tom must be an author. I meditated as I turned the pages and remarked, "Thanks, I have not read this one."

A week later I called again. Not having read the book, I placed it in my pocket, and on the way down to the house peeped inside. I was fascinated.

"How did you like it?"

"I have not quite finished it. If you don't mind, I'll bring it later. It's rather interesting."

As I was leaving she discovered the book sticking out of my pocket, guessed the truth, and accused me. But I imagined she was pleased.

Another world was opened up to me, and for many months we enjoyed it together. She was becoming my teacher in English literature; but why?

XII

Beautiful Ada Boyden was irresistibly pursued by Charles Nicola and they were happily married. Later James Chapman became my room mate. He and Helen Farwell, in whom he was deeply interested, were pleased with the interest that was developing between Belle Hollister and the Doctor. In the usual way the tidings were communicated to our intimates at "the Lords'" and to our friends, the Nicolas, and surreptitiously a conspiracy developed in the little community.

First there was to be a meeting at the National League Baseball Park on the Fourth of July, and each man was to bring "his girl." The Lewises and the Moores of our household invited Jim Chapman, Miss Farwell, Miss Hollister, and me to tea after the game, and we were all to go to the Nicolas' in the evening for fireworks. I was dumfounded when the conspiracy dawned upon me—or was it just a series of coincidences?

Anyway my young lady had accepted the invitation to the ballgame, although it required some persuasion on her part to convince Mama that it was proper to go to a public ball park on a holiday. But Helen Farwell and Ada Nicola, both exemplary Plymouth Church girls, were to be of the party; and this was the redeeming factor.

It was an old-fashioned get-together—peanuts, popcorn, and candy, and actual betting between the escorts, led by Nick. This betting, with actual exchange of dollar bills, astonished and somewhat horrified the carefully brought up girls.

The tea following the game was more dignified, and a charming occasion. It seemed to me things were going rather fast. My young lady, as I thought of her in my own mind, proved extremely popular. Certainly all were charmed with her.

The evening at the Nicolas', with fireworks viewed from secluded nooks on protected piazzas, added romance to the occasion.

We had been together one whole eventful day, with tried friends who had lived with me, who knew me, and believed in me. My lady observed me in the environment in which I was at ease. I was sure that she was pleased with the friends who were of my own choosing, some of them her own friends whom she had known since childhood. It was a unique day, and she seemed to enjoy it.

The joyous day with our friends was coming to an end. The last rocket had gone high, had broken into many highly colored jewels, and darkness indicated that the party was over. Happy, carefree laughter was mingled with the "Good-nights."

Of course we two would walk home. Jim Chapman and Helen Farwell went with us for two blocks, their happy faces and waving hands bade us "Good-night," and we were alone. I pressed her arm closely to my side, and for a short time we walked on in silence. She looked into my face and I was reassured. "We have some lovely friends," she said.

When we reached her home, like hungry children we tiptoed through the silent house and as usual raided the dairy and the pantry successfully, which satisfied our hunger for physical food. We came back to the drawing room. Here there was satisfaction complete, but there was also expectancy in those midnight hours. I felt that I was loved. As we were near together, in the scant light from the hall, the precious moments of that night rapidly passed.

Of course I told her what was in my heart. I asked her to marry me. She revealed to me a deep regard that I hoped was reciprocal love. But she refused to say "Yes." There must be time for reflection. There were others who in all fairness must be consulted. I was definitely a rejected lover, but I could not and would not accept the rejection as final.

At length we parted, and in the cool summer night I walked and walked, and strangely I was happy.

XIII

Stimulated by my gynecological work in the dispensary, I was developing an ambition to perform the operations that were necessary for the clinic patients, and those of my growing private practice.

The literature contained endless accounts of the illustrious work of an Englishman, one Lawson Tait, who was opposed to Listerism.

Tait was a bold controvertist and ruthless in his criticisms; but according to his writings and to those who had visited him, his brilliant results proved that a large percentage of his patients recovered from abdominal operations.

He advocated a new theory—"asepticism," and ridiculed the carbolic acid spray. His technique was simple, "no folderol," he asserted; simply a bag of washed sea sponges on a string which dangled in front of him, and which no one touched but himself. He was extremely skilled and dexterous; his incisions were short, just large enough to permit him to do his work, and his fingers, and his alone, entered the abdominal cavity; no assistants touched the field of operation. He was a pioneer in operative gynecology, among the first to reveal infected tubes and ovaries that were bound down with adhesions which limited the functions of the surrounding organs and caused pain, discomfort, infections, and invalidism. And as the result of his pathological theories a new operative technique was established.

But what accounted for his success? Was "asepticism" a sound theory? Listerism destroyed germs by means of the spray. Had Tait developed a technique whereby open wounds were kept free from bacteria even though the surrounding atmosphere was not? Anyway, Tait's results were equal to Lister's! and our developing science had made us more or less immune from necromancy. Tait's detractors claimed he was resorting to subterfuge, and that in reality his success depended upon a form of Listerism.

And here was I, longing to perform abdominal operations. By careful examinations of certain patients, I could distinctly outline so-called infected masses in the pelvis. The symptoms and history in many of these cases seemed to correspond clearly to conditions described by Tait. However, it was obvious that he was engaged in a ruthless fight, and that Lister was remaining silent about Listerism, which some of us had accepted as a life-saving theory. What was I to do?

In my perplexity I did a lot of thinking. The gynecological literature occasionally showed evidence of independent support of Tait's methods. The authors of the articles insisted that Listerism was being supplanted. Joseph Price, of Philadelphia, however, was uncompromising. He had watched Tait operate, and upon his return to Philadelphia,

with his belligerent spirit, his subtle brain, and his technical skill, he became the center of a coterie of brilliant minds—among them John Montgomery Baldy, Howard Kelly, and others, all of whom expressed their opinions in no uncertain terms, pro and con. For several years the transactions of the Philadelphia Obstetrical Society seemed rather to treat of great battles than of orderly, scientific facts and theories. Needless to say, the reports were read by all of us, as they gave both sides of this momentous controversy in lurid style.

As time went on, Lawson Tait utilized the fundamentals of Lister's great discovery by keeping wounds germ free, not by cumbersome paraphernalia or apparatus, but by simplification of the detail. Thus quiet observers were being convinced that clean surgery presupposed that everything that came in direct contact with the wound must be absolutely germ free, and that the surrounding atmosphere was of minor importance.

The bacteriologist then had his day. What about the hands of the operator? If the surface of the skin must be temporarily germ free, what about the deeper layers of the skin and the crevices beneath the finger nails? The bacteriologist would investigate! Even after the hands had been immersed in strong antiseptic solutions, an abundant harvest of bacteria was revealed in scrapings from the skin and secretions from beneath the nails. Some method must be devised whereby these criminal microbes could be soaked out of the operator's hands before they came into contact with a patient's wounds. Howard Kelly advocated thorough scrubbing of the hands and finger nails in permanganate of potash solution, followed by rinsing in oxalic acid solution. The former germicide penetrated the deeper layers of the skin which it discolored; and the oxalic acid solution removed the discoloration and the destroyed germs. Through subsequent experiments, a definite formula was developed by the bacteriologists.

But I am anticipating, for all of these things were merely in process of development and had not then been proven. At first we considered them rather nonessential. But who dared to ignore them?

XIV

In preparing myself for the first abdominal operation I was to perform, I decided to take no chances. I would observe all of Lister's

decrees, but simplify the process according to Tait. For several weeks I spent my afternoons in the morgue of Cook County Hospital, by courtesy of the pathologist, Dr. William T. Belfield,* and rehearsed the contemplated operation upon cadavers.

The operating theater selected was a large west room of an apartment in the Follansbee Block, directly opposite the Lords' boarding house. The room was carefully disinfected with sulphur fumigant, and the walls and floor were scrubbed with carbolic solution. The equipment was set in place, and the carbolic spray was used two days in advance and during the operation to render the atmosphere germ proof.

A practical nurse had been employed to prepare, under my personal supervision, the fluids and the operating table, and to boil the silk ligatures in wax, carbolic acid, etc., etc., according to a formula devised by Lewis L. McArthur. The assistants were McArthur, Bishop, and Potter, and the onlookers included the coterie of doctors of the Central Hall, and also our censor, Edmund J. Doering.

The little woman who was ready to risk her life had been informed of the seriousness of the operation, and was anxiously aiding in all of the preparations. Her abiding faith in her doctor was seriously startling. Anyway, whatever happened, she said she would be free from further suffering.

Sleepless nights were my lot, for at heart I appreciated the graveness of the situation. Many times I was at the point of abandoning the whole procedure. But how could I? Again I reviewed every detail of the case. Was I satisfied with my diagnosis? There was no one who had had much more experience than I, and the patient anxiously demanded action.

As an alternative, what would be my future if, after all of the preparations, I were to back out now? I was beset at times with a horrible fear. Was I a coward? This was a bracing thought. "Have the courage to do the thing you believe to be right but that you are afraid to do." It became my slogan—a sentiment that during all of my life has urged me on to action, a few times (I hope) with success, and many times (I am sure) to my detriment. So here in this first supreme test I must attempt to do what I was afraid to do!

*Later Clinical Professor of Urology at Rush Medical College.

Confidential revelations to one or two at the boarding house had been fatal to secrecy and the news spread. The good ladies overwhelmed the prospective victim, the patient, with flowers, which she was allowed to look at through an opened door, as they were deposited in the hall. The young surgeon was preoccupied, and the object of sympathetic observation as he quietly came and went. It was a great week in the house of "the Lords," and for the time being the group of young men did not banter the dignified "Hank."

The day and the hour arrived, and everything was set. The brave, trustful woman was placed upon the improvised operating table; the ether anesthetic was administered; the field of operation was thoroughly scrubbed with carbolic solution; on a near-by stand the instruments, many of them new, were immersed in a five per cent carbolic solution; every conceivable thing in the room was wrapped in carbolized sheets and towels; and the atmosphere was dripping in a fog of carbolic solution from the spray. Every detail of the procedure had been rehearsed by the operator with his assistants. The knife was in the hand of the operator and poised above the field of operation. The skin was incised by a hand almost paralyzed by the operator's trepidation. But the incision begun, the operator was no longer beset with nervousness. The abdomen was quickly opened; a large, flat sea sponge, removed from a warm two and one-half per cent carbolic solution, was used to press back the intestines that were inclined to block the procedure. (The Trendelenburg position, which in later years gravitated these persistent intestines away from the wound, had not yet been introduced.) The operator inserted two fingers, and identified the uterus. Anxiously he explored to the right and to the left to verify his diagnosis. Yes, there to the right was the mass that had been palpated at the preliminary examinations. It was slightly adherent, but fortunately not too much so. The fingers passed behind the diseased ovary and tube, rapidly peeled them from the adhesions, and with some difficulty brought the entire mass to the surface as the assistant pressed back the edges of the wound to give easier egress. Because of the careful preliminary supervision and preparation to which the patient had been subjected, pressure from the intestines was reduced to the minimum.

It was agreed that the thin pedicle attachment should be transfixed and carefully tied to the right with a McArthur waxed and braided silk ligature, then to the left, and then the whole pedicle encircled for double security; and finally, in accordance with the custom of Lister, the ligatures cut short. With "Ohs" and "Ahs" from the spectators, the mass was cut away from the pedicle, not too short but with a safe button of the pedicle left beyond the ligature. Then with some hesitation the pedicle was dropped and gently pushed back into the abdomen.

"What about the other ovary?" someone ventured.

It was located by the operator and found to be enlarged to the size of a hen's egg. A "cystic ovary," for the sac contained a bluish fluid. Should I remove it? Of course menstruation would be terminated, and also the painful monthly crises. But menstruation had been painful, and the patient had already borne three children. Yes, this diseased ovary should come out also.

There were no adhesions, and the second ovary was removed in the same manner as the other and more severely infected one. The wound was closed with through-and-through sutures of the braided silk, and the surface of the abdomen was carefully sponged with a five per cent carbolic solution. The complicated Lister dressings already described were applied over the wound.

The operation was over. There had been no hitch, and the onlookers extended their congratulations according to their varying moods. I was in high spirits; glad that I had assumed the obligation. Never again would I experience that terrible dread peculiar to the novice. The ice had been broken, and according to the humble qualifications and requirements of that day, I could count myself a surgeon.

But what about the patient? She had been removed from the stage with a slightly accelerated pulse, and was rapidly regaining consciousness. In a half hour she was lavishing compliments upon her "savior," and her husband also was prodigal in his praise.

What about the knowing observers and helpers? McArthur: "The operation was well done—if acute sepsis doesn't supervene."

Bishop, fresh from Berlin, abounding in German culture: "You have done your duty; all right if she gets well."

"Why shouldn't she get well?" was my retort.

"Some mysterious thing sets in and they just die. 'A septic condi-

with his belligerent spirit, his subtle brain, and his technical skill, he became the center of a coterie of brilliant minds—among them John Montgomery Baldy, Howard Kelly, and others, all of whom expressed their opinions in no uncertain terms, pro and con. For several years the transactions of the Philadelphia Obstetrical Society seemed rather to treat of great battles than of orderly, scientific facts and theories. Needless to say, the reports were read by all of us, as they gave both sides of this momentous controversy in lurid style.

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XIV

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As an alternative, what would be my future if, after all of the preparations, I were to back out now? I was beset at times with a horrible fear. Was I a coward? This was a bracing thought. "Have the courage to do the thing you believe to be right but that you are afraid to do." It became my slogan—a sentiment that during all of my life has urged me on to action, a few times (I hope) with success, and many times (I am sure) to my detriment. So here in this first supreme test I must attempt to do what I was afraid to do!

*Later Clinical Professor of Urology at Rush Medical College.

tion develops,' the wise ones say." And "All the acquirements of science have failed to forestall infection."

"Why should sepsis occur?" I inquired.

The patient was quietly sleeping. My work was done, and I was profoundly thankful. But now I must venture forth, the observed of all the world, the victim of my distinction. Again I was afraid to face it all. But that was nonsense. What about my determination to do the thing that I was afraid to do? I left the building. Several females were waiting on the high steps of the Lords' and faces peered from the windows, above and below. Evidently they had been watching, and doubtless some of the good Christians among them had been praying.

It was too much. Just one glance, and I abruptly turned north and sought the seclusion of my office; but later, with all the nonchalance that I could muster, I faced the ordeal of the dining room.

This picture is not overdrawn; it could not be. Every surgeon of the early eighties could duplicate this story with slightly varied details when he recalls that first laparotomy that he was called upon to perform, with no previous experience and no long months of preparation as assistant to a master surgeon. We were pioneers, enmeshed in the mysteries of new and befogging theories. We had no guides. There were few master surgeons and those few operated at infrequent intervals; and they, too, were befogged by conflicting theories.

XV

Watchful care and hourly visits were bestowed upon the patient. She had a comparatively quiet night, but the following morning her face was flushed, pulse slightly accelerated, and temperature one degree above normal.

"Of course, there must be a slight reaction."

That evening her temperature rose above 100°, her pulse was faster, and she was restless. She announced to me that she felt she would not recover. I reassured her. She sent the nurse from the room, then drew an envelope from beneath her pillow and thrust it into my hand. The inscription read, "To my Doctor. To be opened later." From its weight I realized that it contained gold pieces. I handed it back to her and suggested that she give it to me after she recovered.

"This is not pay, just a present." I pocketed the envelope reluctantly, but with a tug at my heart. It was not gold that I wanted to see at that moment, but a normal pulse and temperature.

In the afternoon Bishop and McArthur visited the patient; pulse 120, temperature 102°.

The next morning her temperature was higher and her pulse quickened; she was very restless. She had a bad afternoon, and her symptoms were becoming more pronounced. Careful inspection of the wound revealed no disturbance at that point. Obviously the case was not one for drugs. Similar mysterious cases were being described in German literature, and the seemingly predestined fatalities were attributed to "acute sepsis."

In spite of our painstaking precautions and technique, bacteria had infested the susceptible peritoneal cavity. More forcibly than ever before it was borne in upon us that sepsis developed in certain cases and not in others because of insufficient caution in protecting the operating field from bacteria, and not necessarily because of lack of technical skill. There must be some fundamental principle that we had not yet recognized.

In the early morning of the following day I lost the patient upon whom I had performed my first laparotomy.

The intensive work, anxiety, and final failure left me in the depths of despair. There was not even one ray of light to encourage and comfort me. The silent interest of my many friends and their sorrow over my failure were but an added anguish. There was little consolation in the fact that I had done the best I knew. What was it that I did not know?

10

1884. PROGRESSION

I. "Hope Springs Eternal." II. Chicago Gynecological Society. III. Apostoli's Treatment. IV. Experiments with Electrolysis. V. Administering the Treatment. VI. A Literary Venture. VII. Politics—A Diversion. VIII. The Republican Convention—I Crash the Gates. IX. Eager to Share My Enthusiasm. X. The Suitor Continues His Quest. XI. A Straw of Comfort. XII. The Presidential Election. XIII. Progress in My Profession.

I

REGARDLESS of hurdles, in youth "hope springs eternal." No matter how grievous the temporary load that crushes the spirits to earth, there is resiliency that promptly reacts with momentum that promises recompense. Occupation is a salve that heals all wounds, though scars may remain.

II

Prof. William H. Byford invited me to attend a meeting of the Chicago Gynecological Society, which at that time met at the homes of the members. I suspect it was arranged by Dr. Byford's son, Henry, one of the charter members of our promising medico-social club.

At the Byford residence on Indiana Avenue, I was introduced to men whom I admired as leaders in obstetrics and gynecology—Doctors A. Reeves Jackson, James H. Etheridge, H. Webster Jones, Charles A. Earle, E. C. Dudley, E. W. Sawyer, Daniel T. Nelson, Henry P. Merriman, and others.

There was a prolonged discussion, pro and con, of Listerism, and of Marion Sims' use of silver wire sutures and his spectacular results in cases of vesicovaginal fistulas.

The discussion was stimulating, and I was interested particularly in Prof. Byford's description of his treatment of fibroid tumors, as I

saw many of these distressing cases in the dispensary and in my private practice. They were a real problem, as there was so little we could do in the way of relief. The hope which the ergot treatment gave to women thus afflicted caused great numbers of them to seek relief.

This first meeting of the Chicago Gynecological Society which I was privileged to attend certainly proved to be an eventful occasion.

III

At about this time, there were occasional references in French literature to Georges Apostoli's use of electricity in the treatment of fibroid tumors of the uterus.

Looking for any clew that promised relief in these cases, I began a systematic study of Apostoli's methods, and was led immediately into an investigation of electricity as it was then known: the static machine with its great glass plates and the sparks it produced; the galvanic current, a continuous current produced by piles and simple batteries arranged in series; and the faradic current, an alternating current of induced electricity, which stimulated the skin surfaces and contracted muscles when applied to nerve centers. The dynamo was only a curious plaything; and Edison's electric incandescent light was in the early stages of its development.

As I proceeded with my study, I obtained an understanding of Ohm's law, the relation of resistance to voltage, and the resulting electric current or ampere strength. The increasing number of articles pertaining to this new science spurred me on to a hasty crystallization and systematization of my own knowledge into outline chapters, which several years later formed the basis of a textbook, entitled "Electricity in Gynecology" (1890).

My investigation revealed that electricity, intelligently applied, would check hemorrhage, especially in cases of tumors of the uterus which expanded the interior membranous surface from which bleeding occurred. As a large percentage of the cases I had observed were of that character, it was manifest that great relief could be afforded if hemorrhage could be controlled. Prof. Apostoli, the courteous French author, was keen to answer my many personal inquiries, and sent me copies of publications that dealt with his work, either complete or in

abstract. Later he sent me an exhaustive treatise of hundreds of pages which described in detail his technique, and reviewed many cases that he had treated.

IV

The instrument houses could not supply the equipment with which to carry on this new work. Dr. McIntosh, of the McIntosh Galvano-Faradic Company, of Chicago, however, was keen to coöperate with me, and we devised a milliamperemeter to enable us to utilize galvanic current with precision.

At a meeting of the Chicago Medical Society,* to anticipate, I reported on the Apostoli method, and exhibited with much pride the new milliamperemeter, to which I referred as "the first instrument of the kind produced in the United States to gauge minute currents of electricity." Dr. Hosmer Johnson, one of my old professors in internal medicine, who to my surprise and pleasure had listened interestedly to my amateur efforts, came forward and said that a year before he had devised a milliamperemeter, more as a matter of experiment than with any particular object in view. He complimented me on the research I had conducted, its practical purpose, and the fine instrument that had resulted.†

Dr. Apostoli used from 100 to 250 milliamperes in his work, a requirement far greater than any compact battery could meet. Dr. McIntosh suggested that I would find an old-fashioned sal ammoniac battery most efficient for my purpose, in view of the resistance to be overcome because of our complicated electrodes. Accordingly, such a battery was set up on two shelves of a cupboard in my office, and the batteries were coupled serially. It was necessary to have a reserve capacity of about 100 per cent, or double the requirement of 250 milliamperes, the maximum dose then recommended.

Apostoli, in his early work, recommended two forms of internal electrodes: one of steel or other metal of spearlike sharpness, an electrode that I could never bring myself to use; the other was a large, metal electrode that could be inserted into the canal of the organ. For his external electrode, having in mind broadening the contact

*December 20, 1886.

†See also page 176.

and protecting the skin from burns when strong amperage was used, he moulded a mass of potter's clay onto the abdomen of the patient, and placed over the clay a plate of soft metal with appropriate connections to the battery.

V

With serious misgivings, I decided to treat a few patients, in each instance explaining that the treatment was on trial. I had two purposes in mind: first, to pass through the mass of the tumor as strong a dose of the current as the patient could tolerate without complaint, but well under the maximum dose recommended by the discoverer; and, second, to bring as much as possible of the hemorrhagic mucous membrane of the uterus into contact with the internal metal electrode, which was attached to the positive pole of the battery, to produce the desired contracting and drying effect.

Everything was ready. An extemporized rheostat, attached to our chain of batteries, permitted me gradually to switch into the circuit from one to one hundred of the cells, and the milliamperemeter measured the current. The patient said she suffered no discomfort from the insertion of the electrodes.

Slowly the current was switched on. The milliamperemeter registered 10, 25, 50 milliamperes, and at this point the patient experienced a slight feeling of numbness. Gradually the current was increased to 75 milliamperes; the patient complained of slight discomfort. At the end of five minutes, the current was gradually reversed, the electrodes were removed, and the woman was allowed to remain quiet for half an hour.

Before her departure, this intelligent woman surprised us by her enthusiasm over the effect of the treatment. She positively announced that her pelvic pains and other distresses ceased the moment she felt the current, and she insisted that the symptoms had not returned.

I was encouraged, but it was difficult to believe that the relief had been so prompt. "Come back day after tomorrow." But my conservatism was unfounded. One of the most astounding features of this treatment in the case of an old fibroid, whether large or small, was the almost invariable immediate relief from pressure and so-called neuralgic pain, nervousness, and distress.

The experiment was indeed worth watching, worth studying, and worth continuing. It proved to be the beginning of an effective routine procedure in cases which hitherto had not responded to treatment.

In my independent observation of the effects of galvanism, I appreciated that there was a dry pole (positive) and a wet pole (negative). The chemical reaction caused by electrolysis was acid at the positive pole and alkaline at the negative, and the former, the positive, was a sedative electrode, when applied in concentrated form, while the latter, the negative pole, was much more irritating.

VI

A careful record was kept of each case, for I was a pioneer in these treatments and it was important that I should report my experience to the medical profession; but my ignorance of the French language and my inexperience as a writer were a decided handicap.

I haunted the medical division of the Chicago Public Library. Some of the French literature on electrotherapeutics I found had been abstracted and translated into English, but certain articles were available only in French, and these were translated for me by the professional attendants at the library.

The outline of my article was well begun, and soon I had accumulated much more material than I could possibly use. It was a new venture, and one that taxed my ingenuity; and not until a year and a half later was I sufficiently satisfied with my task to ask for a place on a worth-while program.

VII

In my contacts with my young friends at the Lords', and with my young doctor associates in the vicinity of 22nd and 31st Streets, the principal topic of discussion was the controversy that was developing over the national political situation in 1884. The 22nd Street coterie, with all of the enthusiasm of youth, was definitely attempting to prognosticate the result of the election. James G. Blaine, the "Plumed Knight," was easily the favorite Republican. His personal magnetism and protracted service in the Senate made him a well known and well beloved individual. He fired the imagination of the public and attracted universal applause. Others prominently mentioned in the preliminary test were: Arthur (who succeeded to the Presidency after Garfield's assassination), Edmunds, Logan, and Sherman.

There was but little interest among this group of sprouting hereditary Republicans in any Democrat who might be selected by the so-called minority party, and there were but two in the entire group who were admittedly Democrats. These two, though modest in their assertions, indicated that their partisanship was based on intellectual conviction and not on biased heredity! Their early favorite was Samuel J. Tilden, of New York. A former New York Governor, named Grover Cleveland and but little known outside of his state, was also considered a likely candidate. Other possibilities were Lt. Gov. David Hill, also of New York, and William F. Vilas, of Wisconsin. Both the Republican and Democratic conventions were scheduled to be held in Chicago.

VIII

The Republican Convention was held in the Exposition Building on the lake front. The favorites and the last-minute candidates had been placed in nomination before the convention by admiring supporters with the usual strong and appealing nominating speeches. A group called the "Big Four," which headed the large New York delegation, attracted much attention. It consisted of Theodore Roosevelt, Senator Thomas Platt, Elihu Root, and Senator Roscoe Conkling.

It was the fourth day of the convention. The preliminaries had been duly executed, and the platform had been considered in committee and was accepted by the convention. The next order of business was the impelling process of selecting the candidate. There was great excitement as the clerk called the roll of the states. It seemed inevitable that Blaine would be nominated that afternoon. The interested and the curious were jammed into the convention hall—perspiring, and rooting for their candidate. Other thousands were congregated in the streets about the convention hall, and got whatever satisfaction they could from announcements concerning the proceedings that were made at frequent intervals from the outside balconies.

Every member of our group who could steal away from professional or business duties was to be found near the main entrance of the great

hall, picking up what information he could from the minute-to-minute announcements, absorbing enthusiasm from the shouts from within and from the wails of the surrounding crowds without. A group of stalwart policemen and doorkeepers strenuously guarded the entrances and endeavored to keep the mob back. The young surgeon, too, had left his patients to their fate on this eventful day. Garbed in the conventional dress of real doctors of that day—silk hat and long black coat, his little instrument bag tucked under his arm—he was with his friends in the great crowd, pressing as closely as possible about that same main entrance.

The morning papers had stated that Theodore Roosevelt, the young man of New York's "Big Four," had been indisposed, but it was anticipated that his vigorous nature would enable him to "do his duty" with his delegation.

As the precious minutes were hurrying by and great historical events were predicted by the shouts from within, indicating that the fourth, and possibly the last, ballot was starting, the dignified young surgeon told his astonished friends that he was going into the hall. Derision met this announcement. However, to witness the momentous climax, it was necessary to act at once. With his business card in his hand, his medicine case under his arm, his silk hat in place, he dashed up to the advance guard of policemen, held his card aloft, and asked to be conducted to the ticket man at the main door. Without stopping, he approached that official, thrust his doctor's card into the detaining hand, and in positive terms stated that he was needed by Mr. Roosevelt of the New York delegation, who was ill and had asked for an attendant; then rapidly on, past the perplexed ticket man and the lineup of policemen, into the long tunnel that led to the hall, without waiting for a specially assigned guide; and, lo, the emergency doctor found himself among the unidentified thousands of president-makers in the great hall.

Balloting was at its height, and as state after state reported, it was evident that the "Plumed Knight" was near the goal of a majority vote. Pandemonium broke forth in the galleries, and the delegates were rushing hither and yon, endeavoring to stem the tide of victory or to rush it on to success, according to their political preference. The chairman of the convention, the Honorable John B. Henderson, of

Missouri, pounded for order as the band broke forth with clashing strains, to aid in organizing the shouts of victory.

The doctor was soon lost in the shouting mob. The Maine delegation was surrounded, its state banner raised on high, and its delegates, cheered on by sympathetic state delegations, began a march up and down the aisles of the section, accompanied by crowds of wildly enthusiastic statesmen. Revelry surely was at its height. In the temporary lulls, delegation after delegation changed its votes and climbed onto the victory band wagon. A roar of shouts greeted an announcement from the platform, and indicated to those who witnessed the thrilling dramatic spectacle within, and to the world breathlessly listening without, that James G. Blaine, of Maine, the "Plumed Knight," had been selected as the Republican candidate for the presidency of the United States. And Mr. Roosevelt, quite recovered from his slight indisposition, was showing his teeth and shouting madly with the rest of his fellow delegates, utterly unaware that he had been receiving an "absent treatment."

For thirty minutes the crowd cheered and howled, and then broke forth anew. Flags and bunting, torn from the decorations of the hall, waved wildly in the air. Several bands, horns, and every conceivable device that could make a noise, aided in a madly spectacular demonstration.

The surgeon, with his imaginary patient out of danger and convalescence well established, excitedly enjoyed a scene which duplicated in the same setting one that he had witnessed with such enthusiasm four years before, when Garfield had been nominated.

IX

I quitted the hall with a feeling of exultation and rushed to my office. Eager to share my enthusiasm, I called the girl who was always in my thoughts.

"Yes, this is Miss Hollister. Who is speaking?"

A damper at once from the imperturbable aloofness of that tantalizing personality. But the enthusiasm at my end of the line would not be downed. "Hurrah! Have you heard the news? The wonder of wonders has just been nominated at the Exposition Hall. Again I was lucky and was in at the excitement."

"No, I had not heard. I haven't a vote; why should I be interested? Who did you say was nominated?"

"Why James G. Blaine, of Maine, the 'Plumed Knight,' and the greatest statesman in our country!!"

"Oh, yes, I suppose you mean the greatest Republican. It will be embarrassing for you, won't it? For whom will you vote at the real election?" More cold water! "I understand you are a Democrat," followed by suppressed chuckles.

Could you beat it? Just puncturing my bubble of enthusiasm at every breath! Just training herself for any future husband whom she might acquire! Then followed a more sympathetic conversation, and finally, reluctantly, the telephone was yielded to waiting patients who wished to converse with Prof. Hollister.

Then I wended my way to the Lords', where the clan was gathering for dinner; and the temporarily suppressed enthusiasm was again turned on. But I did not consider that I merited the unsympathetic ragging that I received from the young men whom I had so unceremoniously abandoned at the entrance to the convention hall.

It was the beginning of a strenuous campaign of bitterness that ceased only days after the votes were cast on November 4, 1884.

X

The events of the summer, as they pertained to the young lady at 3430 Rhodes Avenue, notwithstanding her aloofness at times, were sufficiently encouraging to make me decide to interview her father. I had reason to believe, as was to be supposed, that my growing intimacy was not sympathetically received in the hearts of the parents. My respect for them, and my realization that their position in the community would make them examine carefully into the eligibility of any young man who threatened the independence of their daughter, their only child, were insurmountable barriers to any hopeful anticipation on my part. At least I had a right to present my humble credentials and to state my serious intentions! This I determined to do, and at once; and without consulting the young woman whom it most concerned. The uncertainty of the situation was something that I could no longer endure.

As usual, I had met the young lady on Sunday and had accompanied her home from that safe rendezvous, Plymouth Church. I had been a

guest at a sumptuous dinner at the house and afterwards had walked with her to the Armour Mission. The day had been beautiful. Our controversies were less serious than usual, but sufficiently "peppy" to preserve a keen interest. As a tentatively rejected suitor, somehow I had received just the encouragement in my suit to strengthen my determination to tell her father of my intentions.

Accordingly, on the following Monday morning I went to Dr. Hollister's office, at 70 Monroe Street. I found him alone. It was a tense moment, as facing me without a smile sat this strong man of character, who may have guessed that my errand was an unwelcome one. Sternly he waited for me to speak.

"Dr. Hollister, I have come to talk to you about your daughter." My listener, rather paler than usual, said nothing, just looked at me. Face to face, dispassionately, we discussed our paramount problem. It was a scene that has been enacted in all ages between a parent and one who is seeking to become a husband. This same old story was again rehearsed, and in the light of subsequent events I am sure that neither of the parties to this interview ever regretted the outcome, no matter how difficult the decision at the particular time. My problem involved, as I told the father, my friendship for his daughter and the mutual desire that I felt had developed; and I intimated that it required only the sympathetic consent of her parents to make my plea successful.

There are sacred events in one's life that are difficult but necessary, and which one should erase from one's memory. And if memory will not down, it is unnecessary to relate the details even to an unread autobiography.

I trust that the sympathetic reader will excuse these excursions into the young man's personal trials.

Concerning the remainder of the interview, suffice it to say that Dr. Hollister—like all fond parents from time immemorial, when the inevitable suitor appears to ask for the hand of an only daughter and to be considered as a future son-in-law—was distinctly averse to yielding to the quest on this particular occasion. What real father would have acted otherwise? However, two gentlemen listened to each other, and the younger man left that interview troubled in mind, but with respect in his soul for a great man and a true friend.

Somehow I reached the street and walked several blocks. A sense of calm came over me. Regardless of the difficulties of my reception and the interview, the man whose daughter I hoped to win had listened to my appeal, and no matter what happened I could not be accused of anything but frankness. I had revealed the best and the worst in the life of a country boy who was the product of a law-abiding, morally straight community of Christian people. It was satisfying, too, that every detail touched upon in this interview had been previously revealed to the young lady, who was indirectly the cause of this anxious session.

What would be the reaction? What effect would the interview have upon the daughter, in the light of the father's interpretation?

XI

The next Sunday, having heard nothing in the meantime, I approached the object of my admiration at our regular after-church rendezvous. Reluctantly, I imagined, she consented to walk, not in the direction of home but north on Michigan Avenue. The conversation at the beginning lacked the usual vivacity. It was constrained. I asked a few questions. No cordial response. There was a disposition on the part of my companion to be intensely aloof. Our relations had suddenly become most formal. For the first time I became angry, but endeavored to suppress my feelings. Finally, some slightly disparaging remark by the haughty young woman caused me to cry out, "Why, on this beautiful morning, are you so difficult?"

She looked at me and in an argumentative manner condescendingly began to defend herself against my serious charge of indifference.

Immediately our old relations were re-established. A controversy had turned the trick! As we parted and she took a street car without inviting me to the home dinner, she flung back at me that rather serious consequences had resulted from my talk with her father. The interview had been revealed and discussed—and to my relief she had talked and walked with me in spite of it! Should I cling to that straw of comfort? I must confess that I did.

XII

We were in the throes of one of the greatest presidential campaigns of history, which matched in importance the campaigns of Andrew



ISABELLE HOLLISTER

Jackson and Abraham Lincoln. As theirs had been, so this was a fight of the conservatives against the progressives; of an old order government against a new order.

Grover Cleveland, comparatively unknown at the beginning of the campaign, constantly grew in strength. His administration as Governor of New York state had been outstandingly for thrift and the support of the home people as against the growing money interests. He stood for honest democracy, and his heavy logic was a convincing force.

James G. Blaine, the brilliant statesman, the polished orator, the magnetic personality, who had been in the political arena for a quarter of a century, had much to explain.

The opposition, recognizing the trend toward Cleveland, instigated scandalous personal attacks, and the little truth that was in them Cleveland admitted in answering an inquiry from Henry Ward Beecher. Beecher published the reply, and the charges were proving a boomerang.

Cleveland's followers, against his advice and desire, made counter charges against the personal life of Blaine. These, though of trivial importance, were not so satisfactorily answered. Blaine was faced with charges of irregularities as revealed in letters, which left in the minds of the credulous a doubt as to their truth or untruth.

As the scurrilous fight went on, it seemed that possibly, after twenty-four years of Republican rule, the Democrats might make the grade.

The discussion among the 22nd Street group waxed more and more furious as the campaign drew to a close. In desperation, as the arguments reached serious heights and threatened personal encounters, bloodshed was often spared when one or the other of the irate disputants cried out, "Back it with your money." Usually the outcome was a wager, and while the amounts were small for obvious reasons, the stakes were held by a trusted bystander. The two Democrats supported Cleveland, as against four times the number of Blaine supporters. As a consequence, before the campaign ended the two minority betters were overloaded. In the early days of the campaign, however, the odds were heavy on candidate Blaine.

On the fourth of November the country teemed with excitement. All sought vantage places from which to observe and analyze the returns of the election. Mr. and Mrs. Nicola, Miss Farwell, James Chap-

man, Miss Hollister, several other friends and I had secured a window space in the second story of the Chicago *Tribune* building at the corner of Dearborn and Madison Streets, where the street crowds, and those of us more favored, could see the bulletins as they were flashed on a large screen on the opposite side of Madison Street.

Our little group was manifestly a Blaine crowd, but it was understood that I was a Democrat, and therefore a Cleveland supporter. A few of us knew also that Mrs. Nicola's father had been a staunch Democrat. What would she be with a new husband who was a supporter of Blaine?

Eventually occasional bulletins were flashed, and they showed some slight gain for Blaine from New York or Indiana, and then the pivotal states were being heard from. As each silly caricature monopolized the screen, the good-natured and hopeful crowd in the street began to "Boo" and show their lack of interest. This continued without any concrete news until after ten o'clock. We became restless and suspicious that possibly something interesting was occurring elsewhere. Was it possible that there was no favorable news?

Nicola and I had a little conference, and decided to steal away to the Palmer House where the partisan spirit for Blaine would be more diluted by the despised supporters of Cleveland. Saying not a word, we slipped out and soon were in the midst of a howling, enthusiastic mob in the gilded hall of the palatial hotel. What was the excitement? Bulletins were shown in rapid succession, punctuated by cheers from the crowd. Each showed definite gains over other years in New York and Indiana—for the Democrat. Could it be possible? It was true that some of the great newspapers of New York and Indiana had predicted ridiculous majorities for the Democratic candidate.

Back to the *Tribune* we hastened and informed our party that we were being bilked, that more definite news was coming in at the Palmer House. What, was anxiously asked, is the news? All for Cleveland! Our friends were incredulous. It's a joke; it couldn't be possible. It was suggested that we go over to the Palmer House to see the fun. What fun? As we reached the street we found ourselves in the midst of a discontented crowd unused to reverses. Not for twenty-four years had there been anything like this, except at the Tilden election, and that victory had not materialized.

We were too late to get into the corridors of the Palmer House. Crowds in the streets surrounded it, and we had to be satisfied to protect one another in the mob. Several speakers were attempting to give information from the outside balconies. What misinformation! How ridiculous! Let's get out of this. These are not our kind! Back to the *Tribune!* Here, too, New York was reported as being very close! May take the official count! Indiana may go Democratic! New Jersey and other border line states affected by the unaccountable landslide! There was no cheer anywhere, and it was suggested that we go home. The papers would have the real news in the morning; there was nothing reliable here.

As we were homeward bound in the conveyance, I suspected that the young woman I was escorting, in spite of traditional Republican prejudice, was not entirely unsympathetic to the only Cleveland supporter in our group. In fact, I sensed that she was just a little exultant. The friends of the unreasonable traitor had not been any too considerate during the evening in their references to Democratic voters.

XIII

In spite of my interest in national politics, I had been making progress with my profession. My practice was increasing in a substantial manner, principally because of the friendships I had formed among my patients. One patient brought another, or several. At the dispensary I was doing a fair amount of minor surgery and also teaching. I had read one or two papers at our local society, and I was completing my study of Apostoli's method of treating fibroid tumors. I had improved my battery and had worked out a concentrated current whereby I could apply smaller general dosage by relay applications without lessening the local effect. This was important in treating the distressing cases of hemorrhage.

I had already begun a comprehensive paper on electrolysis in gynecology which I hoped to present before the section of obstetrics and diseases of women of the American Medical Association.

Meanwhile, during my spare moments I was studying the mysteries of electricity, and all phases of its progressive development. I was not satisfied with knowledge of its therapeutic qualities; I wanted to under-

stand its commercial development, to be familiar with its language and its theories.

My affair with the young lady had been progressing favorably. It had been planned that she should spend a month in the East with her old school friends. This worried me. Was it arranged in order to create a diversion?

We had a number of sympathetic interviews. She was leaving immediately after Christmas. I planned to accompany her on the first arm of her journey. I boarded the afternoon train at a suburban station, surprised her, and we enjoyed two hours together.

We parted at last, with promises of letters and letters. I felt that my race was nearing a successful termination.

11

1885. SATISFACTION AND HOPEFULNESS

I. Hot Springs and New Orleans. II. Blessed Be Work. III. Establishing Professional Standards. IV. Practical Application. V. Interest in Literary Research. VI. Personal Affairs. VII. Renewed Enthusiasm. VIII. I Become a Veteran Operator. IX. Progress.

I

The second of January an interesting diversion was thrust upon me. Kimball Young, a brilliant young lawyer, one of the occasional members of our 22nd Street gatherings, accidentally shot himself in the thigh and asked me to accompany him to Hot Springs, Arkansas, to look after his wound while he recuperated. I gladly accepted. When we landed in "balmy" St. Louis, the temperature registered ten degrees below zero! However, Hot Springs was milder, and I had a most enjoyable time.

My services were not required after the first week, so I left my patient and proceeded to New Orleans, where I was welcomed by Uncle Addison Carlin, who was spending several months in the Crescent City, which had an Exposition as one of the attractions that particular winter.

On my return to Chicago I expected to find a sheaf of letters of importance from the East. I had written daily and hoped to be abundantly rewarded. The interesting letters were but few in number—one or two written immediately after the departure and merely sketches of interesting entertainments. The disappointment was grievous. Then a letter arrived that set all doubts aside. It was wise, the letter stated, after considering all factors, that our correspondence should cease. There was not one word of explanation, nor one word of reference to a possible future friendship. The letter had the atmosphere of finality, and could not be interpreted otherwise than that our relations were at

an end. It was intimated that no further communication would be received. It was not only definite, but ruthless.

II

After the encouragement I had received, this sudden change of attitude seemed unwarranted. It was humiliating, and left me with a sense of resentment. Alternately I despaired and became indignant, and there were too frequent lapses of hopeless longing. However, my pride did not permit me to discuss the matter with anyone. If there were to be explanations to our interested friends, they would not come from me.

Fortunately, interesting problems filled my days with work. They were being thrust upon me and gave me grave food for thought, for there are some things that every physician must face and handle according to his own character.

Two sets of women, constituting at least one-fourth of my clientele, were consulting me daily. One-half of them were young matrons who had been married from five to ten years, and who desired to bear children. These cases were extremely interesting, and I gave them much thought in an effort, if possible, to discover the cause of failure. It was a problem that had been studied for centuries—long before Abraham sought aid from the Highest Authority. Years of study of this delicate subject brings experience and wisdom, and enables the conscientious physician to give advice and comfort to many families.

The second group was comprised of women who were anxious to avoid the responsibility of maternity. Most of them were the younger married women. Some of them had already borne children and wished the doctor to advise them how they could legitimately avoid conception.

This was before the introduction of the so-called science of contraception; in the days when these delicate subjects were not openly discussed; when the church had influence, and when the moral and criminal codes did not complacently overlook the seriousness of criminal abortions.

Experienced physicians could fill volumes with the tragedies of these transgressions. It did not require much experience to appreciate that one yielding to such a request would establish a reputation that would soon stamp a doctor as a criminal practitioner. "Thou shalt not kill" was a command of the Highest Authority. "Thou shalt not commit

abortion" is a law of all commonwealths of civilization, backed by the churches of Christendom; and it applies equally to the petitioner and to the individual "who commits it."

There were important factors to consider—the physical pain that a woman suffers from this irregular procedure which often terminates in death, something that every reliable physician should explain to anyone who seeks such advice; the many tragedies that are the consequence of transgression, the family disgrace, the dangers that attend unskilled advice, and the mutilating operations performed by uneducated practitioners.

Forewarned as every medical student is by teachers in medical schools, the responsibility of facing this problem comes soon to every practicing physician. Fortunate is he who takes a definite stand, and absolutely refuses to discuss the matter with any woman, or any man who seeks advice for any woman, except to warn them of the dangers of the criminal procedure. It is never a matter for argument. Logic, even in those early days, would surely have proven embarrassing, and have given hope of yielding.

III

In the early eighties, probably fifty per cent of every gynecologist's patients suffered from displacement of the uterus. The conditions included: change in position of the organ, which produced discomfort; chronic prolapse, accompanied by annoying "bearing down" pains; occasional or continued retroversion, with distressing backaches, general disturbance of the menstrual period, and sometimes severe pain.

In order to correct these displacements it was necessary to have a normal standard—to know the normal position of the uterus, its mobility, and its relation to other organs. I worked with these tiresome cases in my office and at the dispensary, meanwhile scanning the literature and recording the result of my own research. As a candidate for fellowship in the Chicago Gynecological Society, I had to furnish an acceptable thesis. "The Normal Position of the Uterus, and Its Relation to the Other Pelvic Organs"* was the subject of my inaugural contribution presented on May 29, 1885.

*Am. J. Obstet., 1885, xviii, 973; Obst. Gaz., 1885, viii, 361–365; Chicago M. J. & Examiner, 1885, li, 23–36.

No other subject could have produced a more interesting, varied, or prolonged discussion. The reception accorded to my little effort, and its serious discussion by my eminent confrères, pleased me greatly.

IV

My convictions were very firm regarding the cause, the pathology, and the best means of handling conditions pertaining to uterine displacements. Early in my medical career I criticized the mode of dress of fashionable women, for to my mind this had a definite bearing on displacements of the pelvic organs. Hence, in dealing with my patients, there was nothing to do but to advise against that adamant wall of unhealthful fashion—self-inflicted distress, caused by corsets, constricting bands, pounds of dragging skirts, pinched feet, and voluntary repudiation of normal exercise in the sunshine.

Fortunately, the styles of the eighties became well nigh obsolete twenty years later, when changed fashion in dress and out-of-door athletics for women became popular; when open-air exposure and an abundance of sunlight were welcomed, and the face veil and shading parasol were discarded.

A satisfactory routine for the earlier period was gradually worked out, and varied to meet special conditions. The system included definite gymnastic exercise—the forerunner of the "daily dozen" that became so popular at the end of the first quarter of the next century. It afforded much relief, and aided in educating many women, in spite of the handicap of fashion, to maintain themselves in normal health. Each case was an individual problem and had to be studied independently and treated according to the peculiar findings.

V

While by temperament, whatever that may be, I never could maintain a continuous interest in literary research that did not have for its object a practical problem in my own professional work, nevertheless I was attracted by the thoroughgoing service of the large libraries, in which I spent so many satisfactory hours.

I had studied electricity from the standpoint of its commercial use, and I was thoroughly convinced that if it were intelligently applied it would become a valuable therapeutic agent.

Many were the hours and half days that I spent compiling a bibliography of the use of electricity. I was deeply interested in its subtleties as a therapeutic agent, and in the amount of work that had been reported by the profession, showing the varying methods of utilizing electricity in the treatment of surgical conditions.

After several months, during which I had accumulated forty-four references and had carefully digested the articles to which they pertained, I was in a position to write a paper that would comprehensively summarize the literature and satisfactorily report on the effect of galvanism in the treatment of gynecological difficulties, using my own practical work as a basis.

This was my first personal experience in conducting actual research in literature, and it has since been of inestimable value to me, for it has made me realize the importance and the intricacy of such work, the worthlessness of inaccurate research, and the value of an honest, comprehensive job. Nothing is more misleading or more dangerous than an inaccurate bibliography, unless it be a dishonest one.

The paper which was the outcome of this research was read before the American Medical Association in May of the following year.*

VI

My courtship had come to an abrupt end. I was endeavoring to forget, but I was a poor forgetter. Work, however, was a life-saver, and the delightful people whose acquaintance I was making daily also helped to divert me without particularly changing my feelings.

The wanderer returned from the East, where I realized she had been sent for only one purpose—to forget me; but we did not meet.

Late in March, on a Sunday, I was walking on Michigan Avenue with Dr. Rufus Bishop, when suddenly we came upon the young lady gayly walking in the opposite direction with a young woman companion. The suddenness of the encounter was a surprise to me, and before I realized what was happening, we had passed. I had received a sweet but constrained smile, and an acknowledgment of my bow.

Bishop looked at me and said, "Martin, what is the matter with you?" I had failed at that instant to analyze clearly "what was the matter" and I was not interested in Bishop at that particular moment,

*See page 171.

so I presume my reply was not exactly to the point. Anyway, he said something to the effect that the little miss seemed to be slightly embarrassed, which remark interested me.

This unexpected meeting brought back a flood of memories that would not down. I escaped from my friend as soon as possible and secluded myself in my office. Here I attempted to regulate my thoughts which were chaotic. Out of the effort but one thing was evolved: I must see and talk to that young woman at any cost. But how and where? It probably would prove fatal if I acted on my first impulse—to go to the house, and I decided against that risk. I then determined to write, but I could not compose myself to that slow action and the several attempts were destroyed. Finally, strange to my nature, I made up my mind to wait until the next day. This I did, and it was a wise move. For several additional days I waited, in the meantime busying myself with work.

On Friday I wrote a short letter, saying that I must see her—please, somewhere, Saturday. No answer all day Saturday. Late Saturday, April 4, she called by telephone and said if I really wanted to see her she would meet me the following morning at a designated place.

It was Easter Sunday. A half hour before the time set I was waiting at the rendezvous. Bless her heart! she was on time. She was very cordial, but a little constrained. She was on her way to Sunday School, and she "must not be late." However, *she was late* for that particular engagement.

I was impatient, and happy without thought of hopefulness. "What are you going to do to me?"

The reply indicated that we ought to have time for a serious talk. Accordingly a meeting was arranged for the following Tuesday afternoon when we could discuss the situation quietly and dispassionately.

Our little tête-à-tête was of brief duration, but it changed the world for me and I walked on air until the appointed hour.

When we met I had the whole story. She explained to me that according to their plans her father and mother had joined her in Grand Rapids to attend the wedding of her cousin, May Hollister, and McGeorge Bundy. While there she had had a most serious heart-to-heart conversation with her father which had ended in an agreement between them. She was to go East for a prolonged visit. She was to write to me, severing all existing relations between us, and after that she was to have no communication with me whatsoever. She was to have as happy a time as she could while in the East and to forget me if possible. *But*, and this was her insistent part of the bargain, if after a fair and honest effort she failed, if she could not forget, if she ever went back to me, then her decision was to be accepted and considered final. Her part of the agreement, she continued, had been faithfully and she thought at times possibly successfully carried out, but our chance meeting on Sunday had brought her to the acute realization that the effort and pains of the last months had been futile, the flimsy wall had fallen and she could not go on. Then my letter had come and she had capitulated.

This turn of affairs came to me as a miraculous revelation, which in my exalted attitude I could scarcely appreciate. It indicated that this joyous truce led to a successful termination. Hostilities were to cease. I was to be received as an affianced lover! Something marvelous had happened to me, and my joy was unbounded. I was the successful contender for what had proved a most elusive prize.

Of course we could not settle all the details of our plans in the hour at our disposal so we agreed to meet again upon the following Thursday. At that time we decided that Belle should break the dread news to her parents, and that I should appear at the house on Sunday evening.

Accordingly, with very chilly feet but with a triumphant and confident heart, at the appointed hour I ascended the familiar steps and rang the bell. It was a trying ordeal for us all and the deep sorrow of the dear parents was undisguised. Eventually, however, it was stipulated that there should be no immediate announcement of an engagement and that our marriage should not take place for at least a year. At the end of that time, if we were still of the same mind, no further opposition would be raised. A year was a long time, but we had our youth, our love, and we had each other. Nothing else mattered.

In my long walk home to 22nd Street that night, uplifted in spirits, I began to comprehend what it meant to these two dear people. I realized what I, in my position, had assumed in the way of responsibility. How difficult it would be for me to take her from that happy home and those devoted parents and make substantial recompense. However, I distinctly remember, notwithstanding my sublimity, that

I declared in my own mind that I would endeavor with all my might to do everything to prevent them from regretting the outcome. How easy it was that night to make extravagant declarations!

VII

The amateur literary research was progressing and filling in the chinks between services rendered to an increasing number of patients, interesting work at the South Side Dispensary and in the Neurological Department of St. Joseph's Hospital, and regular attendance at the Chicago Gynecological and Chicago Medical Societies. Every activity was now pursued with renewed enthusiasm.

My operative work was gradually amplified, and my success in it increasingly satisfactory. I did this work in the homes of my patients as I had as yet no hospital appointment. Occasionally the courtesy of the Woman's Hospital was extended to me by Drs. Byford, Merriman, and Nelson.

VIII

I performed another abdominal section for a tumor of the ovary. The patient lived in an apartment on 22nd Street, and again I had to improvise an operating room and prepare everything for the procedure. I requisitioned the services of Dr. Bishop as anesthetist, Dr. McArthur as first assistant, Dr. Potter as general utility man, and Dr. Doering to operate the carbolic spray. And to strengthen my moral courage, I invited a few friends to witness the operation, among them Dr. Henry T. Byford and Prof. W. W. Jaggard who had been trained in Vienna and received an appointment to the obstetrical department of the Chicago Medical College.

The abdominal cavity was cautiously opened and immediately revealed—not a pearl-colored cyst of the ovary as I had expected, but a smooth, flesh-colored tumor, about five inches in diameter.

Consultation as to its nature was necessary. It seemed to be attached either to the uterus or to a fallopian tube. The possibility of an extra-uterine pregnancy was ruled out by the carefully recorded history and the tensity of the tumor; it was not of the consistency of a fibroid; it was not directly connected with the uterus; and though it was filled with fluid it showed rather indistinct signs of fluctuation.

Could it be removed? Careful examination of its circumference indicated that it was firmly and solidly buried in the bottom of the pelvis, and seemingly the source of its growth was at the horn of the uterus—of fallopian tube origin. Lacking prior experience, it was unwise to attempt to separate the mass from the tissues, as the surrounding structures might be irreparably damaged.

What kind of fluid, if fluid at all, constituted the mass? The aspirator* must be pressed into service to withdraw a sample of the contents. This apparatus was in Potter's charge. Following prior instructions, he dipped the point of the needle into the dish of carbolized water, and at McArthur's suggestion drew a little of the fluid into the bottle to test the apparatus and render the interior of the needle and tube antiseptic. The serenity of the operating corps was startlingly interrupted for as the stopcock was turned, the carbolic solution from the basin was suddenly sprayed over every individual in the room. The vacuum bottle had been pumped full of compressed air when it should have been evacuated. It was indeed fortunate that the test discovered the mistake as it probably saved the patient from serious consequences.

Aspiration revealed pus. What next? The tumor could not be delivered to the abdominal wall because of the adhesions. Bishop suggested that the Volkmann two-stage method be employed, viz.: evacuate the contents as far as possible by aspiration, thus rendering the mass more pliable; then sew the tumor (preferably at the point of aspiration) to the edges of the abdominal incision, place a plug of gauze in the opening down to the surface of the attached tumor, and close the wound. A happy suggestion in a difficult situation! The dressings were applied, and the patient was restored to her bed, apparently in fine condition.

On the third day the secondary operation was performed. The gauze was removed, a small incision was made through the wall of the tumor, a perforated rubber drainage tube was inserted, and the protruding end of the tube buried in absorbent gauze. Meanwhile the tumor at the point of this incision had formed close adhesions, which rendered impossible any contamination of the abdominal cavity from leaking pus.

The patient showed no serious symptoms, and no alarming temperature or pulse. We were all congratulating ourselves when suddenly,

*Used to remove fluids from cavities by means of suction.

about the eighth day, her temperature began to rise, and there were distinct signs of infection. Was it possible after all that we were going to lose this patient? A consultation was held among the group who had been present at the operations, and it was decided that I should call in Christian Fenger, then the outstanding surgical consultant in Chicago.

Fenger came over from the North Side in his shabby little buggy, drawn by the old horse who possessed enough horse sense to read his august driver's mind whether he drove with one rein or none. The distinguished scientist was genuinely interested in his young confrères and their predicament. Grunting, and expressing his thoughts in several languages, he finally blurted out that the temperature must be the result of improper evacuation of the anchored tumor. He advised the use of a Schultz curette, a spoon-like instrument, to scrape off the lining of the tumor and remove any pyogenic material. Bishop produced the instrument from his German kit, and Prof. Fenger, the dear fellow, stayed with us, as always oblivious of the loss of his valuable time, and watched the curettement. Every time we brought out from the depths of the tumor a spoonful of "pyogenic material," he enthusiastically expressed his approval. During the manipulation, a little abscess in the seam of the abdominal wall, near the seat of the operation, opened and emitted a teaspoonful or more of pus. This interested our consultant very much. The long process was terminated, and the admiration of our local group for the distinguished Dane was sealed as never before.

The patient made an uninterrupted recovery.

The case was reported by me to the Chicago Medical Society,* and was accorded a very learned discussion by Prof. Fenger. Because of the unique procedure that was employed in dealing with an adherent fluid tumor, and Fenger's discussion, the paper received wide distribution in medical journals in America and abroad.

This was my second "laparotomy" (as we were beginning to call abdominal operations). I was something of a veteran operator, and I was proud.

*A Successful Case of Abdominal Section for Pyo-salpinx, Treated by Volkmann's Method. Am. J. Obstet., 1884, xlix, 435; Boston M. & S. J., 1884, cxi, 132; Chicago M. J. & Exam., 1884, xlix, 435–439.

IX

I had not intended to slight my professional duties, but the days were alluring, the companionship entrancing, and many an afternoon I slipped away from my office as my most important mission in life could not be neglected.

The beautiful spring and summer days passed like a fascinating dream. Each twenty-four hours served to bring us nearer and nearer. The tastes and appreciation of the books we read, the music we enjoyed, the operas and plays we witnessed together, the profound philosophical questions we youthfully discussed, all revealed to us our mutual sympathy and the congeniality of our ideals. In those months we were comrades, as well as ardent lovers. Together we besieged the castle of the opposition. It was often stormed but never routed. Nevertheless, little by little its defenses weakened, and when it finally surrendered the capitulation was complete. Early in the fall there was a ring. One Sunday evening it was shown to Papa. He took his little girl in his lap and, attempting to smile through his tears, gave her his blessing.

Almost immediately the feminine end of the family had much to talk about and many arrangements to make.

It was most desirable to have the daughter remain in the neighborhood, so we found a satisfactory little house, recently built, at 3308 Rhodes Avenue, two blocks from the old home. Father and Mother asked the privilege of furnishing the little nest for their daughter. Everything of use or luxury that such a home should have was provided in that little house. (In the final audit the only article found wanting was a doormat for the front porch.)

It was a joy to these dear people to do all of this for their daughter and her chosen man. It gave us all something in common to think about, and I was received into it all with wholeheartedness. Bless their hearts!

12

1886. "FOR BETTER OR FOR WORSE"

I. Overwork and Overplay. II. The American Medical Association—My First Address. III. Publicity as Distinguished Guest. IV. The Great Event. V. A Family to Support. VI. More Literary Work. VII. Thin Ice. VIII. A Bad Half Hour. IX. Chicago Medical Society.

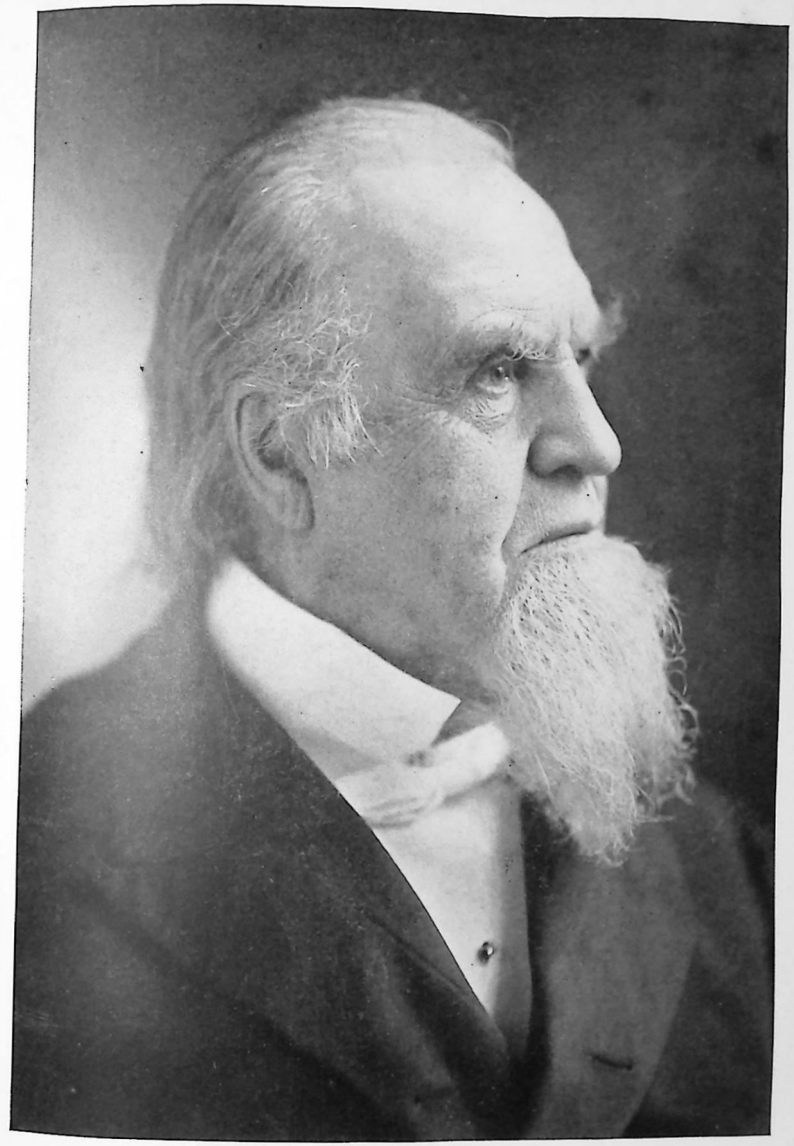
I

My professional and social activities were stimulating, my income was steadily increasing, my ambition was at its apex, and one by one my fondest dreams were coming true.

My happiness of these days had a background of substantial work. I was asked to read a paper before the thirty-seventh annual meeting of the American Medical Association, a distinction which I much appreciated. My practical experience along the line of electrolysis in gynecology and my two years of research on the subject, formed the basis of this paper. It was a real task to concentrate all of my material and my voluminous bibliography into a readable paper that would not exceed the limit of the time allotted to me.

This extra work, including my professional activities, and the time that I was stealing in my amorous pursuit at the Rhodes Avenue home began to tell on my endurance. In all of the strenuous physical work that I had done I had never worried much about my state of health. Therefore I was naturally impatient at any signs of ailing when I wasn't even doing "real work."

Early in April I suffered a severe cold with fever and prostration —later in the century these symptoms were diagnosed as "Spanish Influenza." I was ill for two weeks. My old teacher, Prof. Quine, attended me, and occasionally Prof. Hollister "looked in." However, I had little time for illness. My practice had to be cared for, and I needed



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the practice. The responsibility of financing an establishment of my own was but one month distant, and on May 5 I was to make my bow at the meeting of the American Medical Association.

II

The paper which I had been preparing for two years—"Electrolysis in Gynecology,"* was completed, and as all amateurs should do, I practiced its delivery—standing, sitting, and prone. I knew it backwards and forwards, and my reading on allied subjects had furnished me with an answer to every question that could possibly be brought up.

The important event transpired on the afternoon of May 5, at St. Louis. The section of obstetrics and diseases of women was crowded to capacity. The subject as announced was to consist of the original paper by unknown me (so obviously I was not the attraction), and was to be discussed by important and nationally known specialists—Ely Van de Warker, of Syracuse, New York; Robert Newman, of New York City; George F. Hulbert, and George J. Engelmann, of St. Louis.

As I sat on the platform awaiting the announcement of my paper, I noticed that my future father-in-law had slipped into a rear seat, and Prof. Jaggard, also of the Chicago Medical College, occupied a conspicuous position in the middle of the room. I was to have a distinguished audience!

I had no difficulty in my delivery, and my voice penetrated to all parts of the large room. I am sure that no one in the audience felt that I did not appreciate the importance of my paper, which was presented to them as the last word. I knew, too, that it was not with a spirit of bluff that they received it. The applause at the end was not perfunctory, and it cheered my heart.

The discussion was animated. Many questions were asked and promptly answered. My eminent discussers were very complimentary and no one could have been more pleased with a first effort.

*With a Report of Three Cases of Fibroid Tumor Successfully Treated by the Method. J. Am. M. Ass., Chicago, 1886, vii, 61; 85. Also published as a reprint, with supplementary paper citing two cases of fibroid tumor treated by electrolysis, by J. N. Freeman, M.D., of Brooklyn.

III

Immediately following the meeting someone asked me to have my picture taken for the newspapers. I remarked that it would be considered unethical.

"Oh certainly not, you are entitled to it. You have now become an object of news." While I realized that I was as "newsy" as one could hope to be, I was flattered by the prospect of seeing myself and being seen in a news column.

"Anyway," my tempter continued, "I have a picture of the president of the Association and a number of the other distinguished guests." That was enough. I was led through back streets and into blind alleys, and duly "shot" in a disreputable looking newspaper studio.

The next morning I appeared with several other "also rans" of the convention, crowded to the side of the sheet by more important news—several portraits of suspects who were being held in connection with the famous Haymarket Riot in Chicago, a tragedy that had occurred on the evening of May 4. It was a motley array, the portraits of the men of our great profession appearing indiscriminately with the group of alleged anarchists; and as a result we were deservedly "ragged" for several weeks by our envious colleagues.

In spite of these insignificant distractions, I was much pleased with the reception of my "début." But more urgent business awaited me in Chicago, so I rushed back with an envelope of newspaper clippings as evidence of my "news" importance.

IV

Here everything was at fever heat. The date set for the wedding, May 27, was fast approaching. The hundreds of invitations had been directed and mailed. There had been great excitement over the list of wedding invitations. It had been intended to keep it as small as possible, but as plans proceeded there was no place to draw the line.

The little house was receiving its furniture. The wedding party had been selected. Dr. Rufus Bishop was to sustain the groom in the great ordeal. Miss Grace Fuller, a lifelong chum of Isabelle's and daughter of Melville W. Fuller, the future Chief Justice, and Miss Katherine Harris were to be veil adjusters and train bearers of the young bride;

while Dr. E. Wyllys Andrews, Messrs. Harry B. Wheelock and Albert W. Crouch were to act as ushers. The proud father was to hand over the lady to the new property owner. The Rev. Dr. Henry Martyn Scudder was to be the officiating minister, and to be legally responsible for the tying of the knot. The preparations were dignified, but rather elaborate.

Finally the hour came. The wedding march began. The groom in trepidation waited, with his support and the minister, before the improvised altar. He was nearing unconsciousness; there was a lump in his throat. A miracle was materializing as the wedding party preceded the bride and her father down the aisle, formed by the conventional ribbons. The bride, perfect and self-sustained, was on the arm of her father who was dignified and impressive in appearance. The faces of friends and relatives were expectant. The groom mechanically received his bride and they assumed their places before the venerable minister. The ceremony began. It was simple but impressive. The priest spoke. The preliminaries were passing. We were each reciting after him the usual "I, Franklin," etc. It was distracting for the "rattled" groom to follow the text. The enormity of the whole proceedings overwhelmed his organs of speech and a swelling lump filled his throat. He was unable to finish or even gasp out the final "Holy Ghost, Amen." The minister had witnessed such panic before and ignoring the omission proceeded with the ritual.

The "I pronounce you man and wife" rang with a welcome in the ears of the groom. Prayers were solemnly said. The minister congratulated. The maid of honor adjusted the veil. The groom kissed his wife, and the crowd came forward with their congratulations, and what seemed like a million or more friends shook his limp hand.

By and by came refreshments, the cutting of the wedding cake, the retreat to the upper floor, and the swift, tender farewell by the bride to the beloved associations of her girlhood. In a minute it was all over. The bouquet was gayly thrown by the girl-bride as we joyously ran down the stairs amid bushels of rice, and dashed to the shelter of our carriage. We waved adieus to the old homestead, and in five minutes we were in our own home, where our honeymoon was to be spent.

As we entered, we were met by the strains of the wedding march, played upon her piano by Miss Gertie Foster, then an unknown neigh-

bor in the adjoining house. It was a graceful welcome. Other neighbors were excitedly peering from behind partly drawn curtains of adjacent houses. For "all the world loves a lover" and how infinitely more a bride and groom.

V

Our household was a cozy and a thrifty one. Jo, our Irish maid, was a joy. She looked after us as though we were a couple of irresponsible children.

There were presents from our many friends. We felt our unworthiness in receiving these many beautiful souvenirs. However, their acceptance was complimentary to Dr. and Mrs. Hollister. We were embarrassed by the kindness of everybody, but after admiring and finding a niche for each article, we laughingly agreed that we would rather be embarrassed than not have them.

But as the responsible head of a new and beautiful family it was apparent to the food and rent earner that after several months of unrecognized neglect of his profession, he would have to take off his coat and attend to business.

I had recently been appointed professor of gynecology in the Chicago Policlinic. Consequently there were clinical lectures to prepare and to deliver twice a week to graduates in medicine at the Policlinic College on Chicago Avenue at Wells Street. This was a task that I thoroughly enjoyed, and the out-patient department, established in connection with the College, provided a goodly number of clinic patients.

My work, dealing with galvanism in the treatment of fibroids of the uterus, continued to attract attention, and I was fortunate in having plenty of material with which to demonstrate the treatment. I had developed my own apparatus with more up-to-date attachments, and thus was enabled to give actual demonstrations in detail.

Meanwhile, I had established a "downtown" office in the Mentor Building, 163 State Street, at Monroe Street.

VI

Laboriously I had been poring over an outline of Prof. Apostoli's huge volume on the treatment of fibroids of the uterus with galvanism. It was a tedious task, as I could afford but little help at the libraries.



MRS. JOHN H. HOLLISTER

One day Isabelle picked up the volume and began to give me a free translation in English of the French text. I cried out with joy. She had chosen a very helpful job for herself. Except for a few technical terms, she translated the thousand pages with facility, and so through her aid I was enabled to finish my summary and appropriate as much as was valuable for my abstract of Apostoli's theories, giving him full credit.

Needless to say, this was an inspiring task, and very valuable in the development of my own work along the same line.

VII

By late July or early August I began to be alarmed at my shrinking business. I had felt that my financial position was secure, and with my usual optimism, it had never occurred to me that I couldn't comfortably support my family.

However, things had just stopped. Even the family practice suddenly slumped, and my special office business was small.

This led to reluctant disclosures at home, which I had postponed hoping for better returns. That confession to Isabelle proved a godsend. She, like all watchful wives, had suspected. She proved a friend in need and revealed immediately her financial ability. In quizzing me about my own financial methods, she soon convinced me that I had no thrift in me and certainly no head for the proper value of money. She showed me a dozen ways in which we could economize and live on our present income without embarrassment.

I was relieved. Two heads were certainly better than one; and one should make a confidant of his wife in matters of finance as well as in matters of love.

VIII

The next day this same Isabelle asked me to sit down.

"Well, what is it? Can't I stand?"

"No," she said, "please sit down." (I have since learned that when Isabelle says, "Please sit down," it means business.)

I noted that she had two pads of paper and two pencils. She said, "I want to make a list of the items you owe."

"Why, I don't owe anything worth speaking of."

"Well," she said, "I hope not, but let us see."

The list was made. Small item after item was dragged from me. The tailor, the haberdasher, the liveryman, the florist, the bookman, the instrument firm, the office rent, medical journals, etc., etc., all small and unimportant items. It was a direful quiz.

"You are sure you have them all?"

I was sure, but we kept on finding more. Like all tortuous processes, eventually it ended.

The list was then totalled. It was a long, scraggly one. I could have sworn that I did not owe, including current items, fifty dollars. To my amazement and horror it added up a trifle over one thousand dollars.

There was no scolding. "Frank," she said in a definite tone, "the first thing we must do is to pay these bills." That was all, but the program was meticulously carried out. And it established a wholesome precedent for all time.

IX

On December 20, I read a preliminary paper on my studies of the Apostoli method before the Chicago Medical Society.* In it I suggested one or two changes according to a technique which I had perfected.

I also endeavored to correct some erroneous impressions concerning this subject. Electricity, in some form or other, had become a favorite remedy in the hands of irregulars. It possessed a spectacular element that easily beguiled the neurotic, gullible individual; hence its use by quacks. This was embarrassing to one who was endeavoring to unearth its real worth and to establish it as a scientific therapeutic agent.

At this time I made my first formal presentation of the milliamperemeter which insured accuracy in measuring the galvanic current. I showed a substitute for Apostoli's cumbersome potter's-clay electrode, in the form of a membranous abdominal electrode, which had proved a distinct improvement in my own work; and I also presented a new intra-uterine electrode of my own invention. In concluding the paper I described details of applying the treatment.† Many letters of commendation and of inquiry resulted from this literary essay.

*Treatment of Fibroid Tumors of the Uterus by Electrolysis, with a Description of Apostoli's Method. J. Am. M. Ass., Chicago, 1887, viii, 449–454.

†See also page 146.

An eventful year for two sympathetic individuals who had deliberately joined hands "for better or for worse" was passing into history. The financial storm had been short-lived, and the returning prosperity brought with it a new sense of solidity and permanence. The beginning had been auspicious. The little home at 3308 Rhodes Avenue was a harmonious and happy one, and beginning to gather a group of dear friends about it.

13

1887. AN ACTIVE YEAR

I. To Do or Not to Do. II. Hystero-Neurasthenia. III. "Referred" Cases. IV. Appointment to Woman's Hospital. V. Ninth International Medical Congress—My Participation in It. VI. Political and Social Aspects of the Congress.

I

My few efforts in presenting and publishing the results of my work were attracting notice. A well-intentioned friend, a neurologist, intimated one day that I could earn a good fee if I would investigate and report upon a certain proprietary medicine that was being advertised exclusively to the profession. Naturally I was interested in any honorable proposition by which I could increase my income.

In a few days I was visited by a messenger who stated that I had been recommended to investigate a particular product, which he mentioned by name. He handed me a package. It contained five one-hundred-dollar bills; and a long letter detailing the qualities of the product, and stating that a dozen boxes, each containing twelve bottled samples, were on their way from an eastern city, and with these I was to pursue my investigation.

The material arrived in due time, but the five one-hundred-dollar bills were the fatal mistake of the ambitious promoters. I had gathered the impression that their product had merit, but why all this hurry, why all this cash? I was wary. The five one-hundred-dollar bills were placed in safe-keeping, and the twelve boxes of samples were snugly stored in my office, unopened.

In replying to the letter, I asked for an interview with someone in authority, and indicated that there was some uncertainty as to whether I could undertake the investigation. I consulted my friend, the neurologist, and questioned him regarding the ethics of such a procedure.

He laughed at me, said I was "finicky," and urged that I had ample evidence of the ethical standing of the firm with which I was dealing, and of the value of their product which was being advertised in all reputable medical journals and being prescribed by thousands of the regular profession. Furthermore, he said, it was a great compliment to me as a young man to be asked to undertake the research.

After several interviews with the man in authority, I told him that while I appreciated the compliment his company had bestowed upon me, I should have to decline to serve them; that I had already sent to his home office a money order for the five hundred dollars that they had so generously sent me, and that I would immediately return by express the boxes of samples.

Somehow this transaction brought to my mind the impressive lectures on the ethics of the medical profession by my teachers, John H. Hollister and Nathan Smith Davis, and I asked myself: "What would they have done under the circumstances?" I knew the answer.

There must have been a temptation, for my conscience was greatly relieved when the five hundred dollars were safely swallowed up and on their way in the U. S. Mail.

II

After much study, I was convinced that the definite, unaccountable symptoms of women of that day were connected with impaired function of the reproductive organs. The prominent requirements of these cases were, as I saw them: Rest; proper feeding; seclusion; and sleep.

The "rest cure" that was initiated and practiced so successfully by Dr. S. Weir Mitchell, an eminent neurologist of Philadelphia, for cases of general neurasthenia would benefit these cases of mine.

Ambitiously, I invented a name for the condition, formulated my views, and presented a paper on the subject before the Chicago Medical Society on March 7, 1887.* I quote the opening paragraphs:

"Hystero-neurasthenia is a name that I will take the liberty of giving to an often recognized class of female difficulties which have not a well defined place in medical literature.

"The symptoms of this class of cases are as difficult to enumerate and

*Hystero-Neurasthenia, Or Nervous Exhaustion of Women, Treated by the S. Weir Mitchell Method. J. Am. M. Ass., Chicago, 1887, viii, 365–368.

describe as the individual cases are difficult to manage to a successful issue. Under the term hystero-neurasthenia, I wish to include no symptoms which can be traced to a distinct pathological lesion of any one organ, but to a host of symptoms that can be accounted for in no other manner than by being the result of a partial or general nervous inefficiency, or perversion, of the nerves controlling the organs peculiar to women.

"The first of these conditions, nervous inefficiency, may be congenital, or the result of excessive exercise of the functions of the organs of the pelvis, from a long and prolific child-bearing season, excessive cohabitation, or undue treatment of a local variety. The second condition, nervous perversion, will be found the result of excessive brain work, either as a consequence of early study, or from literary excess, teaching, and clerical work common to women of maturer life, the worries of motherhood, anxieties of impending or actual misfortune, prolonged lactation, nursing of the sick, and excessive physical labor. . . ."

In describing the treatment I said:

"How can we obtain these four requisites without over-drugging our patients? We must introduce some means by which an irritable body, that is unable to assume the recumbent position without resting upon some painful spot, may lie down without pain. We must feed properly a patient whose appetite is capricious, whose stomach may be irritable and rebellious, whose bowels will not 'agree' with anything that is suitable to sustain life. We must put into seclusion patients who imagine they require the sustaining sympathy of innumerable dear ones. We must produce sleep in a class of patients who have long ago worn out all the safe and efficient narcotics. . . .

"Dr. Mitchell seeks to meet the four requirements in the treatment of these cases by first getting full control and confidence of the patient. Without this first requisite, the case is a failure. After this is accomplished he makes the remaining part of the problem feasible by a combination of entire rest and of excessive feeding made possible by passive exercise obtained through the use of massage and electricity.

"A physician, to treat these cases successfully, must have an eye to detail, possess at least the ordinary amount of tact, perseverance, firmness, and good executive ability. The nurses employed should be educated, intelligent, strong young persons, who are able and willing to work, and who can make themselves very agreeable; who possess tact and firmness, the latter without sternness. They should understand and be capable of performing thorough massage, administering a vaginal douche properly, and be adepts at preparing tempting sick-room delicacies. . . ."

Over a period of years many of these cases came under my care. They were among the most difficult and interesting problems I had to

solve, and the results frequently were encouraging in the extreme. Many of the women had lost courage, they were partially bedridden, their strength was depleted, and their initiative was practically at the lowest ebb. Through the enforced rest and feeding, the habit of sleep, and the application of faradic current, neuralgic pains and nervousness were allayed.

This was the forerunner of physical therapy which gained so much popularity in later years.

III

It was a red-letter day when a physician of eminence in Frankfort, Kentucky, sent me my first referred case. The patient was a woman of culture and refinement, and she came from a state where such attributes are properly appreciated. The letter of introduction stated that she had an intractable fibroid and her doctor hoped my treatment, of which he had been reading, could help her.

The patient came regularly to my office. In three days she said she was relieved of pain and her sleep was undisturbed. The hemorrhage was materially reduced during the first month, and she began to put on weight.

After three months of routine treatment, no one could convince her that she was not completely restored to health. However, I informed her definitely that the tumor had not disappeared; but that with proper attention to her diet, and with a reasonable amount of outdoor exercise in the bluegrass country, she would in all probability enjoy good health. She was cautioned to return to me if at any time the hemorrhage increased.

I was complimented to receive a call from the elder Prof. Byford, in which he asked me to visit one of his patients from Indiana who was stopping at the Sherman House. The patient had a large fibroid, he said, for which he had been giving his ergot treatment, but he thought possibly my "new-fangled" method might be of greater aid to her.

Much elated, I took my portable paraphernalia to the Sherman House and sent up my card, and presently found myself in the quarters of two maiden ladies. The elder of the two called from the hallway to

the other who was lying on a bed that a "boy" was calling "saying he is a doctor sent by Prof. Byford."

This remark touched my sense of humor rather than my dignity. Perhaps they would turn me down because they thought me a youth, and if so, I could forgive them. However, I was cautiously admitted at the suggestion of the invalid, possibly because she was curious. The two women proceeded to catechise me as to my identity and my qualifications. Possibly, they suggested, I was the young son of some Dr. Martin. Ruthlessly and arbitrarily they said that they respected Prof. Byford's judgment, but they would have to consult him as they could not accept me as their doctor. Certainly I was the butt of ridicule and of tongue-lashing by these two spinsters!

I took my paraphernalia and cautiously backed out. When I related my experience to Dr. Byford, he laughed and said he anticipated that I would have trouble of some kind. "They are kind at heart, and within a month you will be enjoying daily arguments with them. I will explain to them that you are not as young as you look." And he quietly chuckled again. "Just go back again tomorrow morning and say that you have come to give a treatment, and proceed with your work."

The following morning I was greeted by, "Here you are again."

"Yes," I replied, "Dr. Byford told me to come and give a treatment," and I began to unpack my apparatus. This seemed to excite their curiosity and a flood of questions followed, among them, "What are you going to charge for all this fussing and this elaborate machinery and 'Jimcrackery?'"

"As you seem to value the judgment of Prof. Byford," I said, "we will leave the question of fees to him."

"Well," one of them replied, "we are not millionaires."

I replied that Prof. Byford had informed me that he was not sending me to charity patients.

"Oh, did he?" (ouch!) was the retort.

The case was a characteristic one, and I told the patient that I was sure my treatment would relieve her disagreeable symptoms, put some flesh on her bones, and restore her vigor. She snapped back that she was not accustomed to being ridiculed!

"No, young lady, but you can stand the truth."

After I had carefully placed the electrodes, I cautiously turned on the

current. The anxious horror depicted on the face of the patient was something one would expect to see in a victim of the guillotine. However, contrary to expectations, there was no pain, and she asked if that was all there was to it. When I reassured her, she called her sister who was waiting in the adjoining room in painful suspense. She came in, surveyed the "contrivance" as she called it, and showed suppressed interest. After five minutes I disconnected the apparatus, and there was a sigh of relief.

But before I left I was destined to receive a severe quizzing. "How do you know that this will do any good?" I calmly replied that individuals who had been willing to coöperate had been greatly benefited, and that I hoped it would prove successful here.

"How much will it cost?"

"Five dollars a treatment at the hotel, or three dollars at my office."

"How often are the treatments to be administered?"

"At first I should advise one daily."

I was regaled by, "Oh, is that all?" In reality, I myself thought that it was a pretty good fee, but they, I believe, considered it astonishingly reasonable. Why should they not have been agreeably surprised, since they were in the hands of an eminent specialist, who had been recommended by an internationally known gynecologist of the great metropolis on the inland sea?

The third morning I was informed that the two giddy girls had been over to Marshall Field & Company shopping for dinner plates, and that the patient had had her first full night's sleep in months, due to the fact that her "nervous pains" had disappeared. How, she queried, could one treatment relieve her pains? I retaliated by saying that either she had imagined her pains, or the relief might have been due to my great hypnotic ability.

She resented this. "No man has ever been able to hypnotize me; besides I have suffered at times the torments of the devil."

Obviously I was making progress with two interesting women who did their own thinking, and who possessed tongues that could adequately defend them, especially against all frivolous men.

Large doses of galvanism transformed this woman from invalidism to normal health. She returned once every six months, received treatments at my office for several weeks, and ended up each trip to the

big city by indulging with her sister in an orgy of shopping, theater going, and a general outing.

IV

Early in 1887 I was appointed attending gynecologist at the Woman's Hospital, in which only gynecological and obstetrical cases, private and charity, were treated. This appointment was of great value to me, and I appreciated it as a distinction.

The institution was located within two blocks of our domicile, and in it I could now care for my private cases, and also aid in serving the women who came to the out-patient clinic. The exclusive staff, which had full charge of all patients, at that time consisted of Prof. William H. Byford, his son Dr. Henry T. Byford, Dr. H. P. Merriman, Dr. D. T. Nelson, and Dr. Marie J. Mergler, who were among the most distinguished gynecologists and obstetricians in Chicago.

A Woman's Board, of which Mrs. J. B. Lyons was the president, directed the financial and domestic business of the institution, in conjunction with the professional staff.

I was a very busy man, but work agreed with my disposition. I had abandoned my position in the neurological department at St. Joseph's Hospital partly because of the great distance, but in reality because my professional work was more and more directed to another specialty.

V

The Ninth International Medical Congress was held in Washington on September 5 to 9, 1887. A symposium before the section on gynecology was to be led by Apostoli, the discoverer of the treatment of fibroid tumors by galvanism, and I was asked to participate in the discussion.

Meanwhile, Isabelle had translated for me Apostoli's voluminous monograph on the subject, and I had devised certain changes in the treatment that standardized and simplified it, and also, I believed, made it much more effective. The records of my numerous successful cases could be shown as practical evidence. Apostoli presented his theories and a summary of his work, and his presence added much to the interest in the subject.

My discussion was presented under the title: "A Method of Treatment of Fibroid Tumors of the Uterus by Strong Currents of Electricity; Based upon Exact Dosage; Being a Modification of Apostoli's Method."*

It began:

"That marked beneficial effects have been obtained by different methods of treatment of fibroid tumors of the uterus by means of a continuous current of electricity, is not now doubted by the majority of scientific surgeons. While the confirmatory literature on the subject at present appears to be in a very confused state, and while the reported benefits are the result of almost as many different methods of operating, one familiar with the inexorable laws that govern electricity can discern that each method that merits attention depends for its success upon the same underlying principles.

"The degree of success obtained by any one operator is an indication of how capable he is of concentrating these certain well-known principles of electricity to the treatment of these pathological conditions without injury to healthy tissues, and with little inconvenience to the patient. . . ."

At this meeting I exhibited my newly invented appliances, among them a dynamo which I described as follows:

". . .the dynamo that I had caused to be constructed with the assistance of Elmer A. Sperry† to take the place of the cumbersome batteries that we were then obliged to use. . . . The two currents generated by the machine are identical with those generated by a cautery battery of large cells and large surface, and with that generated by a large number of small cells arranged in series, and are designated respectively, the cautery current and the electrolytic current. . . ." (The dynamo in turn was later displaced by the continuous current that was subsequently distributed to all buildings for purposes of incandescent lighting.)

In concluding this paper, I said: ". . . The principal advantage of this method can be summarized under six headings:

1. It is entirely free from danger.
2. It is absolutely painless.
3. It invariably checks excessive hemorrhages.
4. It rapidly reduces the size of the tumors.
5. It stops neuralgic pains.
6. It is a system of treatment of fibroid tumors of the uterus by electricity, based upon principles which make exact dosage possible."

A very animated discussion was aroused by my paper and others.

*Tr. Internat. M. Cong., Wash., 1887, ii, 669–684; Med. Rec., N.Y., 1887, xxxii, 753–757; Abs. Nashville J. M. & S., 1887, n.s., xl, 434–436.

†The eminent inventor who afterwards designed the gyroscope.

VI

Eight International medical congresses had been held at intervals of several years in many countries of Europe, and had gained a reputation that attracted the representative men of our profession in all specialties. This was its first appearance in America.

The American Medical Association had been instrumental in bringing the International Medical Congress to the United States, and when the American committee was organized, Dr. Austin Flint, Sr., of New York, President of the American Medical Association, was selected as the President of the Congress, and Dr. Nathan Smith Davis as the Secretary-General. Almost immediately a contest was precipitated between the leaders of New York, New England, and some of the other eastern states, as against the leaders of the West and South who insisted upon fair representation on the general committee. Medical politics are always most distressing and unworthy; and lasting embarrassment is the inevitable result. But the fight was on, and the West and South were victorious.

To the regret of all, in the midst of the activities of organizing for the Congress, Prof. Flint died, and Dr. Davis, organizer of the American Medical Association and editor of its official Journal, was elected President of the Congress by acclamation. He was entitled to the honor for he had done much of the preliminary work.

It was Isabelle's and my first great gathering where specialists of all the world were in attendance. As I registered in the section of gynecology on the morning of the opening day, someone pointed out Prof. August Martin, of Berlin, *the* distinguished foreign guest of the Congress, who was to have a conspicuous place on the gynecological program. I asked for an introduction. Very cordially he grasped my hand, pointed to my name on the program which he was scanning, and said he had intended to look me up. I was flattered, and made the most of the implied compliment. Standing near to him was a charming young German woman. I asked him if she was his daughter. He laughed loudly and introduced her as his wife, and then explained to her with great glee that I had asked if she was his daughter.

We were friends at once. He was a great, rollicking, good-natured

man, about forty years of age, and weighed about two hundred pounds. They were on their honeymoon. Mrs. Martin, who was several years younger than her husband, did not speak English, but made herself understood by her decidedly fascinating personality. I told the Professor that Mrs. Martin, my wife, would want to meet his bride.

I had an opportunity to introduce Isabelle at the opening session of the Congress, an impressive affair held in Albaugh's Opera House of Washington. The two young women found a common language in French, and became fast friends. A shopping tour of Washington was followed by sight-seeing, and attendance on the teas and other functions provided for the entertainment of the ladies. Prof. Martin spared no pains to be friendly to me, and seemed to appreciate Isabelle's fond attentions to his wife.

Official Washington, including President Grover Cleveland and his distinguished lady, were our hosts during this eventful week. President Cleveland addressed the Congress at its initial session.

There were several large evening receptions at which the members of the Congress were invited guests. A personal incident, which illustrates the importance of distinguished lions in the eyes of society leaders, gave some of us amusement. At one of the receptions, as Isabelle and I were entering the drawing room, and our names "Doctor and Mrs. Martin" were announced, we were quite overwhelmed by the cordial greeting of our hostess.

Suddenly, having considered her guests more carefully, she said, "Where are you from, Dr. Martin?"

With true civic pride I replied, "From Chicago."

"Oh," she said coolly, "we were looking for the distinguished Prof. Martin from Berlin." And we were passed to the obscure crowd.

Our sense of humor saved us, and we did not resent the sudden change of attitude of our charming hostess.

Within a very few moments there was an unusual stir and down the broad stairs, with gorgeous decorations covering his capacious breast, came our friend with his lovely wife. "Doctor Professor and Mrs. August Martin, of Berlin" were loudly announced. There could be no mistake this time! Our hostess fairly rushed to her guests. They were

rather overwhelmed at the burst of enthusiasm and looked around as if for succor.

Then the Professor spied Isabelle and me near by, disengaged himself from his effusive hostess, and joined us. One would have thought that we were his long-lost relatives. I had to tell him of our experience.

Often in later years we met in various cities of Europe, and always I was greeted with a laugh and "How is the distinguished Dr. Martin?"

The official reception of the Congress was held on Thursday evening in the new Pension Hall. The spacious rooms were gay with flags, the Marine Band was pouring forth inspiring music, and a brilliant crowd of men and women were jostling each other. At the head of the long reception line stood Dr. N. S. Davis, President of the Congress. As Isabelle and I approached, he gripped Mrs. Martin's hand and said: "Belle, I have been trying all afternoon to find you," whereupon he drew a telegram from his pocket and handed it to her.

The message was from Dr. Hollister in Chicago, and contained information that Isabelle's mother was to be operated upon the next day by the celebrated surgeon of London, Dr. Bantock. It was a great shock, and Isabelle's first real trouble. Ovariotomies in 1887 were serious operations, as my record has indicated.

We returned home immediately, and fortunately found Mrs. Hollister in no critical danger and on the way to convalescence.

14

1888. NEW VENTURES

I. Developing a Philosophy of Practice. II. Oliver Wendell Holmes. III. Post-Graduate Medical School and Hospital of Chicago. IV. The North American Practitioner. V. Political Conventions and Presidential Election.

I

As THE new year dawned, I found myself enmeshed in a series of interests—a professional practice with an increasing number of surgical cases; important office activities; and literary research and writing in a strenuous effort to prepare reports of my work for proper publication.

My patients were my paramount concern. Each morning as I approached my office, and anticipated meeting new people with their individual problems, I was filled with intense interest. When the superintendent of the hospital conducted me to new patients, I was keen to see them and to review their difficulties. And I was equally anxious to study the ailments of those whom I saw in the out-patient clinics, and who were unable to pay for the services they received. The same deep interest engrossed me each time I entered the operating room, whether the operation to be performed was of a trivial or critical nature.

Even in the earliest days of my medical practice, my scrutiny went beyond the particular disease which I encountered in unraveling a diagnosis. I was concerned with the individual who consulted me, with her fears and distresses.

Never but once, and that was at the insistence of the patient's husband, did I reveal to a patient that she was doomed, and I have prayed to be forgiven for that grave mistake. The patient noted my suffering, and suspected that I was going to fail her. She placed one hand over her eyes so that she could not see me, and with the other hand endeavored to stop my speech, and screamed, "Dear Doctor, please,

please don't say it." I never really uttered the actual words, and immediately endeavored to convince her that she was mistaken; but of course I failed. The dear woman, in an effort to spare me, took my hand and endeavored to smile.

But I, the one in whom she believed more than in anyone else in the world, her physician who had served her and protected her and spared her all possible suffering, and who had never before revealed to her any semblance of hopelessness, I, too, had had the cruelty to abandon her and suggest that she was in an incurable state. It was something that she had already suspected, but which she would not allow herself to believe until her own doctor, who had so carefully shielded her, cruelly revealed the dread fact.

Then and there I vowed that never again would I act as judge and sentence a patient of mine to death. And many decades of practice have convinced me that that course was correct. No matter how distressing or serious the case, there was always a chance that the patient might recover. And who was I to pass judgment?

Every surgeon has had the happy experience of seeing a patient recover when he was apparently at the point of death. Also there have been striking instances in which the pathological examination and all clinical evidence indicated an incurable disease, and yet the patient spontaneously recovered. These are the rare instances that furnish fuel to dishonest propaganda and unscientific cultists.

II

In 1888, I was the President of the Chicago South-Side Medico-Social Society which we had organized five years before. The subject of my retiring address was "The Life and Work of Dr. Oliver Wendell Holmes," with particular reference to his medical work and utterances. It will be remembered that he was educated as a physician, and for thirty-five years had taught anatomy in Harvard Medical School. Had he not become a distinguished writer of general literature, he would nevertheless have achieved fame because of his medical teachings and writings.

It was he who announced in 1843, long before the present antiseptic methods of caring for obstetrical cases were adopted, that childbed

fever was the result of contamination of women at childbirth, of uncleanly procedures on the part of careless midwives and physicians. His suggestion was promulgated five years before Semmelweis made his pronouncement, and long before the scientific discoveries of Pasteur and Lister demonstrated the course of these deadly infections.

Incidentally my distinguished father-in-law, Dr. Hollister, who had been a medical student in Pittsfield, Massachusetts, often referred to a lecture given at that pioneer medical school by Oliver Wendell Holmes, who was a periodic lecturer at the institution. In this lecture Dr. Holmes said with great enthusiasm and impressiveness: "Young gentlemen, since I last spoke to you I have witnessed a marvelous procedure. I have seen a man put to sleep by an anesthetic. I have seen an operation performed upon him and I have heard him announce upon his return to consciousness that he had experienced no sensation of pain. This event, gentlemen, I believe to be the first step which will revolutionize surgery."

The date was October 16, 1846. The anesthetist who demonstrated the effects of ether was Dr. William Thomas Green Morton, and the operator was Dr. John Collins Warren. This was the first recorded operation under a general anesthetic. Dr. Crawford W. Long, of Georgia, had used ether as an anesthetic in 1842, but he failed to record his discovery in the literature. In 1847, chloroform was employed in obstetrics by Sir James Young Simpson, of Edinburgh.

It was this incident, so graphically related by Dr. Hollister, which first aroused my interest in Dr. Holmes and later led me to make him the subject of my address.

III

The post-graduate classes at the Chicago Policlinic, in which I had become much interested, had grown to a flattering degree. Three times a week I traveled across the city by street car to Chicago Avenue and La Salle Street to devote two hours to the teaching service.

Dr. W. Franklin Coleman, an ophthalmologist, a few years my senior and secretary of the institution, was another faithful attendant and an indefatigable worker. We were becoming dissatisfied with the administration at this institution for we felt it lacked the enterprise that

was necessary to supply a much needed graduate school in Chicago. Suggestions for betterment that we occasionally made bold to express were ruthlessly brushed aside, without an answer. Finally, when Dr. Coleman and I were on our way home from one of the fruitless faculty meetings, we gave vent to our feelings and discovered that we were both thoroughly dissatisfied, and realized that with the prevailing conditions the situation was hopeless.

After several thoughtful but sleepless nights I proposed to Dr. Coleman that we organize a thorough-going post-graduate school of medicine for Chicago. Dr. Coleman was a gentleman of the highest type and quietly he had already determined to abandon the Policlinic, and to decide was to act. There and then we agreed to make a survey of the field of teachers, and to meet within twenty-four hours to discuss our results.

Cautious questioning revealed that several other members of the faculty were dissatisfied and were only waiting for someone to take the initiative. We wasted no time. Within a week we had signed up a strong tentative faculty on a basis that the expenses of the new enterprise were to be shared equally, and to be paid monthly as bills were rendered.

Our preliminary meeting was held on September 12, 1888. The first board of directors comprised: H. P. Newman, president; R. H. Babcock, vice-president; W. F. Coleman, secretary; Franklin H. Martin, treasurer; and Frank Billings, chairman of finance committee. Among the incorporators and the faculty were such distinguished individuals as: N. S. Davis, Sr., J. Adams Allen, H. A. Johnson, A. Reeves Jackson, J. H. Hollister, W. H. Byford, C. T. Parkes, H. T. Byford, L. L. McArthur, F. S. Johnson, Boerne Bettman, Josef Zeisler, R. W. Bishop, Frank Cary, J. C. Hoag, Bayard Holmes, and G. W. Webster, most of whom had already achieved international fame.

The new "Post-Graduate Medical School and Hospital of Chicago" with its "Public Dispensary" warranted a location in the center of the "Loop." Consequently, in December we rented a four-story building at 31 East Washington Street, the site now occupied by the Marshall Field & Company annex. Announcements and advertising material were prepared for release early in 1889, as we planned to open our doors to students on April 1.

IV

In December, 1888, we entered into an agreement with Truax & Co. to publish *The North American Practitioner* as the official journal of our Post-Graduate Medical School. It was our purpose to foster a highly scientific journal for the Middle West. Dr. Bayard Holmes was elected editor, and Dr. Junius Hoag, assistant editor.

V

Again I was interested in the Republican and Democratic candidates for the presidency of the United States.

The Republican convention was called to order in the newly constructed Auditorium in Chicago on June 19. The interior of this great hall was unfinished, but its seating had been rushed to completion, and the bare steel rafters were artistically decorated. Isabelle and I took the week off and attended the convention and followed the proceedings.

The leading candidates were Walter Q. Gresham, of Indiana; Chauncey M. Depew, of New York; Russell A. Alger, of Michigan; Benjamin Harrison, of Indiana; William B. Allison, of Iowa; James G. Blaine, of Maine, and a dozen or more who received a few complimentary votes from their respective state delegations.

The convention was an extremely orderly one, and not particularly interesting. The most dramatic incident was the opening prayer, which was delivered by Dr. Frank W. Gunsaulus, of Chicago. This eloquent theologian ended his appeal to the God of nations by asking His divine blessing on the beloved captain of armies, our national hero, General Philip Sheridan, who was on his death bed in Washington. As Dr. Gunsaulus finished his thrilling plea to his Creator, the four thousand delegates and spectators spontaneously rose to their feet and cheered for several minutes.

After five days of routine business, Benjamin Harrison was nominated for the presidency, and Levi P. Morton, of New York, for the vice-presidency.

The Democratic convention was held in St. Louis, July 8 to 11. For the first time since 1840, there was no contest. Grover Cleveland was

nominated by acclamation. Allen G. Thurman, of Ohio, was nominated for the vice-presidency on the first ballot, Vice-President Hendricks having died during the first year of his term of office.

At the fall election the Republican candidates were victorious. The electoral votes stood 233 for Harrison, and 168 for Cleveland.

15

1889. ADMINISTRATIVE DUTIES

I. Cancer Study. II. Opening of Our Post-Graduate School.

I

THE cruel spectre of cancer! As the clinics and private practice brought an increasing number of patients to my attention, I saw many distressing cases of cancer, most of them in an advanced stage, and apparently beyond the possibility of cure.

I have always insisted, and it is the experience of every observing clinician, that cancer, in its earlier stages, is a curable disease, and that no one can predict with certainty when the stage of curability has been passed.

Fifty years ago the technique of diagnosis had not been developed to the present more definite state of perfection, and physicians were not in a position to speak decisively in any given case. Prior to the discovery of x-ray by Roentgen in 1895, and radium by the Curies in 1898, we were dependent upon removal of diseased growths by the knife or by the cautery. The use of actual cautery by the application of soldering irons was advocated in 1872 by John Byrne, of Brooklyn, for cases of cancer of the lower portion of the uterus. The cautery was effective in removing the diseased tissue in a large area, the heat sealed the bleeding arteries, the veins, and the lymphatic vessels, and it was claimed by Byrne that the remaining surrounding tissue was rendered sterile by the cooking process.

The treatment became a favorite among gynecologists and eventually was extended to other affected tissues of the body. There is no doubt that many early cancers of the cervix were successfully and permanently cured by this crude method, and it is still a tradition among many members of our profession that cancerous tissue can be removed more effectively by the cautery than by the cold knife. The apparatus

was modified, after electricity was made available, by the invention of the more elegant electric cautery.

It was my custom to tell my patients of the possible benefits of an operation; that the procedure would undoubtedly give immediate relief from distressing symptoms; and if the whole tumor and its local extensions could be removed, that there was promise of a cure.

I saw many patients with cancer of the breast, some of them with large infected areas that emitted foul discharges. Experience often revealed that the most distressing symptoms of developing cancer were due to inflammatory complications caused by the tumor rather than by the disease itself. Palliative measures often prolonged life, removed the symptoms, gave courage, definitely improved the general well-being of the patient, and promoted hopefulness and a renewed joy of living.

As my technique was perfected, I adopted more extensive surgery for cancer of the uterus and removed the organ in its entirety by the lower route, an operation first performed in Chicago by Christian Fenger upon a patient to whom I administered the anesthetic. My case reports before medical societies, and the exhibition of specimens, excited some favorable comment, especially as the patients recovered.

II

Our Post-Graduate building at 31 E. Washington Street had been put in order, and we were ready to open our doors on April 1. The lower portion of the building was reserved for offices, classrooms, and the dispensary, and the third and fourth floors were converted into a hospital, the beginning of the Chicago Charity Hospital. Mrs. Corrigan, an adequate and enterprising trained nurse, a young English woman, was selected to take charge of the hospital, and a man of all work was hired as janitor.

There was an aspect of thrift and academic activity about our institution. We had a wholesome *esprit de corps*, for our faculty was interested and eager to follow our ideals of service; we had a hospital on the ground in which to house our clinical cases—whether medical or surgical; our apparatus was thoroughly up-to-date, and our downtown location was convenient to the hotels in which the visiting doctors—our prospective students—lived. Thus we had a distinct advantage over our competitors.

Publicity was disseminated equally to the profession and to dispensary patients, and within the first month we were rewarded by a group of students, and by a satisfactory out-patient dispensary attendance.

This interesting venture furnished a wholesome and useful diversion, and demonstrated that we had the ability to do things outside of the routine of professional practice. It also gave every industrious member of our faculty an opportunity to refine the art of clinical teaching. With our carefully selected executive committee, Dr. Coleman and I now felt that we could enjoy the full benefits of our efforts. The new school developed rapidly.

My own classes were attended by a progressive group of doctors who were anxious to perfect themselves in treating the diseases of women. Many of the visitors had graduated in medicine several years before and were successful practitioners in their communities. They were apt students.

Ours was a "show me" clinic, for the dispensary was well attended by patients who were available for purpose of demonstration. Many of our students had never before been able to palpate the deep-seated organs, sense their position, size, and condition, and then have the findings confirmed or criticized by a teacher. This accomplishment demonstrated that the statements in textbooks were not purely imaginary.

16

1890. BLESSED BE THE PEACEMAKER

I. Big Business. II. New Home of Post-Graduate School. III. Tragedy Amidst Festivities. IV. Ruthlessness Brings Regrets. V. Diversion.

I

In view of the popularity of our Post-Graduate School and Hospital, we could not expect to remain permanently in limited quarters on one of the most valuable sites in the center of the "Loop" of our growing metropolis. We had a five-year lease, but there developed an aggressive movement to gain possession of our building. We did not propose to yield.

We as professional men were incapable of coping with "big business," but our lease gave us legal security. A glib underling of a well established real estate firm approached us; we were adamant. One of the principals interviewed us, and by his persuasive eloquence interested us and gently swayed us; but we evaded the dotted line, thought the matter over, and again declared that we were satisfied to remain where we were.

"Why are you so anxious to get us out? Do Marshall Field & Company need our building?"

"Not at all. We represent not one, but many. Confidentially, in the view of some unreasonable fanatics, a medical school and a free dispensary in the very center of our shopping district is looked upon as a public nuisance. If that notion spreads and finally prevails, you may be forced by the city to go elsewhere."

I was angry, and inclined to be impudent. Dr. Coleman, a *perfect* gentleman, laughed and said of course that was a joke.

Our suave visitor admitted that no one would want to employ ruthless methods with a group of eminent professional men, "But," he continued, carefully addressing his remarks to Dr. Coleman and

studiously ignoring me, "no one would be inclined to oust you on any grounds without fully compensating you for your expense and loss of time."

We consulted a lawyer, who was a wise man. He surveyed our building and the location, and expressed surprise that we had ever secured our lease. Through his connections, he surmised that Marshall Field & Company were seeking the quarter block through to Wabash Avenue.

"I would advise you to settle, and take your leisure in getting out. The 'public nuisance' suggestion may be used as a last resort; but negotiations are on, I am advised, for the purchase also of several adjacent lots, to which the 'public nuisance' clause cannot apply."

We left our fate in the hands of our legal adviser, and ultimately accepted a settlement which covered all of the expenses we had incurred, and also provided us with an insignificant nest egg.

Contemplating eventualities, with the aid of an industrious young real estate dealer we had scanned the city for a possible location. I was attracted by a site near the northwest corner of Michigan Avenue and Adams Street—opposite the present Art Institute—which contained a row of four-story brick buildings, each unit 25 x 160 feet. One-half of this property (or double the space we then occupied) could be secured for fifty thousand dollars. It was suitable for our purposes, it could be made ready for immediate occupancy with but little repair, no other property in the center of the city was available at the price, and it was ideally situated on the lake front. The old Exposition Building was the only structure on the east side of the street.

Our conscientious broker, with all of his might and *vision*, was opposed to the site. He argued that all of the buildings, except a fire station, were unrented; the worn pavement discouraged traffic; Michigan Avenue was developed on one side only, and had the disreputable outlook of the railroad to the east—handicaps under which no business property could possibly enhance in value; and if we ever wanted to dispose of the property, we would have to compete with all of the vacant buildings, etc., etc. It was inconceivable!

It was put up to the faculty. The agent spoke eloquently in behalf of a location on Third Avenue (now Plymouth Place), south of Van Buren Street. I was outvoted, after being partially convinced. We organized a stock company, our faculty members subscribed for the

stock, and an attractive building, with elevator and "all modern conveniences," was soon under way.

II

Someone said of our growing enterprise that it did not "hide its light under a bushel." A full-page advertisement appeared in the leading medical and surgical journals in November, 1890.

Bayard Holmes, one of our surgeons who was a scientist among his other brilliant accomplishments, had developed our very comprehensive, up-to-date pathological laboratory, and engaged Dr. Adolph Gehrmann as director.

Among my other duties, I decided to take a systematic course in the technique of the new and important science—bacteriology.

"How I would like to take that course of study with you," timidly suggested Isabelle one day when I was expounding on its importance.

"Why not?" I replied. And forthwith we enrolled.

Every morning for weeks we were absorbed in the mysteries of germ life—the experimental development of bacteria, the actual cultivation of micro-organisms through artificial media, the cultivation of bacteria in the animal body, the practical use of the microscope, and the effectiveness of germs in bringing about infection and even death.

It was an interesting and valuable experience for both of us, and especially for me. Bacteriology had been discussed when I was in medical school, but it had not yet been adopted as a part of our curriculum.

III

Our new school and hospital was to be formally opened the week of November 17. Dr. Burt R. Shurly, of Detroit, whose research into a cure for tuberculosis was being rewarded with success, was to be the orator of the occasion. The profession of the community and the surrounding states revealed an interest, and the opening promised to be well attended.

Among the many other functions planned by members of the faculty, Isabelle and I decided on a four-o'clock tea at our little home of which we were so proud.

On the afternoon of the day we had selected, too late to call off the reception, Isabelle developed a severe mass on her neck, the character

of which was obscure. The swelling was increasing rapidly, and the pain and fever confined her to her bed.

I was alarmed, for I immediately visualized a scene in the laboratory one week before—a guinea pig had been inoculated with anthrax, and had died, as predicted, in twenty-four hours. At the urging of our teacher, we had taken precaution to protect ourselves from accidental infection.

Dr. Hollister called Dr. Elbert Wing, a leading young practitioner who was well versed in pathology; and with him came Dr. Holmes, Dr. Gehrmann, and several practitioners of the older generation.

Isabelle insisted that the reception must go on. So while the function was in gay progress below, the amateur bacteriologist lay in her room, surrounded by laboratory technicians who with their microscopes and culture tubes were endeavoring to isolate the germ that caused the general infection of the mysterious swelling.

Grave consultation followed the examination of the first slide. The three experts diplomatically shoved me aside, removed the slide from the microscope, and substituted others. In reply to my anxious questioning, they said, "We don't know, we are endeavoring to find out."

Meanwhile the old-fashioned flaxseed poultice, which had given the only relief, was discarded, and a dressing of gauze saturated with hot boracic solution was applied, supplemented by a small hot water bag. The ignominiously and scornfully rejected flaxseed poultice was carelessly placed on the edge of the bed. Humiliated, the poultice wreaked its revenge. Dr. Elbert Wing sat down upon it, and as he rose to join the gaieties downstairs, he was laughingly called back by the dying patient who carefully removed the clinging mass from the Professor's new coat.

After several examinations during the night, the experts changed their diagnosis and told me that it was not anthrax, as they had at first suspected. The patient's pain gradually lessened, her temperature subsided, and by daylight the young and aspiring bacteriologist was pronounced convalescent. In the final analysis, the attendants agreed on a diagnosis of "anthrax," which had failed to kill an unusually resistant individual. But as a post mortem had to be indefinitely postponed, the diagnosis was *never* verified.

The preliminary social functions incident to the opening of the al-

ready famous Post-Graduate School and Hospital passed off with great eclat, and the culminating scientific meeting, addressed by Dr. Shurly, filled our new science hall to capacity, and brought forth spontaneous discussion by the leading clinicians and scientists of the country.

IV

As a member of the Chicago Medical, Gynecological, and South Side Medico-Social Societies, each of which met once a month, and of the section on obstetrics and diseases of women of the American Medical Association and of the American Gynecological Society, which met yearly, I frequently contributed reports of my work, and I was also much interested in the contributions of my associates. If abstracts of their papers were available in advance, I took considerable pains to study them. Impelled by my youthful enthusiasm to criticize honestly, I fear I did not realize at the time the ruthlessness of my manner, nor the fact that I was jeopardizing friendships of long standing.

Frequently, after our local society meetings, Dr. Doering would admonish me by saying: "Martin, why are you so hard on these friends of ours? Now you must apologize to that man!" I realized that my well-meaning friend, Doering, was distressed at my attitude, but sometimes I resented his advice as interference, and replied, "The rest of you fellows knew that the paper was impossible, that the technique was faulty, and that the opinions expressed were untenable; yet each and every one of you was too polite to speak his mind," or some other resentful retort. In the end, though it might not be for days, this friend accomplished his purpose, for almost invariably through his diplomatic effort I apologized to the object of my criticism. And when I did apologize, I determined that my methods of discussion would be more tactful. Notwithstanding, at the next opportunity, when the blood was up, I was likely as not to repeat the undiplomatic procedure. However, blessed be the peacemaker!

At the 1890 meeting of the American Medical Association, in Nashville, Tennessee, I presented "A Plea for Early Vaginal Hysterectomy for Cancer of the Uterus,"* a paper which I had painstakingly prepared. It was based on my operating experience, and contained a review of the literature. The conclusions were definitely in advance of the times. A genuine round of applause followed the presentation.

*J. Am. M. Ass., Chicago, 1890, xv, 745; ibid., 1890, xvi, 877; ibid., 1891, xvii, 152–157.

After some desultory discussion, one of our veteran fellows, Dr. Thaddeus Reamy, of Cincinnati, a brilliant operator, teacher, and writer, took the floor. For many years he had been known as one of our "silvery-tongued orators," and as the accepted dean of gynecology in our national society, he was always listened to with profound respect. Whether something in my paper was antagonistic to his views, or whether he considered it his duty to call down the rather youthful "upstart," I did not then know. He proceeded to discuss my paper with a perfect tirade of personal epithets; he raged at my "undigested" material which he accredited to the "rashness of youth"; but in all of his long and increasingly uncomplimentary speech, he did not in any way attempt to point out one concrete criticism. Such presentations, he cried, should not be tolerated by our learned society, and he intimated that my paper ought to be expunged from the proceedings, and its publication prohibited.

For many years this man had pursued the course of merciless criticism of many valuable papers that were presented, and his oratorical discussions were always anticipated by the rank and file. But before he finished on this occasion I realized that a scene was inevitable. A number of the younger men were outraged by his unwarranted attack, as he dwelt particularly on the "youthfulness of the author," whom he was criticizing on general principles. Several men cried out, moved from their seats, looked back at me, and wondered what course of retaliation I could pursue against this orator of distinction who habitually carried his audiences with him. I, too, was wondering what I could say or do to meet the tirade. I even smiled, for I was getting some of my own well-deserved medicine. He suddenly paused and looked around at his audience. It was obvious that he expected to continue, but to his surprise the usual applause that punctuated these intervals was not forthcoming.

Just then I noticed that Dr. N. S. Davis, the founder of the American Medical Association, my own beloved teacher, had been sitting through this speech. It gave me courage. As my handsome protagonist took his seat, I realized that it was up to me. Certainly there could be no further discussion until I replied to this ruthless attack.

Applause greeted me as I got to my feet. So an answer was anticipated, and the audience had finally shown resentment at the methods of their old hero, and no doubt they hoped that I would reply in kind. I was stirred to the depths and impatient to be up and at it. My adversary had laid himself wide open.

I began quietly by saying that I could not apologize for my youthfulness—time would remedy that; but that as the years would come and go, I would pray that my eyes be not closed to progress. I thanked God that I had never before met a man of maturity whose eyes of experience were closed to the efforts of youth, whose mind was closed to honest effort. What a world this would be if youth had to face maturity—especially maturity as represented by a man whom youth had looked to as the embodiment of wisdom, as we had up to this moment looked upon our friend who had just spoken—realizing that all vision of the past would be blinded, and that with him all progress would end. I hoped the time would soon come when scientific papers in medicine would be discussed on their merits; when foolish and meaningless compliments would be considered out of place, and when criticism would be based on the facts presented and not on prejudice. My paper of the afternoon had not been written for the man who had just discussed it. It had been written for men of judgment. As the material of my paper had scarcely been referred to, and as no attempt had been made to discuss its merits or demerits except a sweeping denunciation because of the youthfulness of its author, I would leave the decision in the hands of my hearers.

This was the substance of my remarks. It would have been more dignified to have ignored the insult, but I lacked that wisdom. My state bordered between amusement and belligerence, and when I found that I had the sympathy of the majority, I was ruthless and indiscreet in my reply.

My adversary jumped to his feet and cried that no one could publicly insult him without suffering the penalty. Several of his friends rushed to him as he came toward me with clenched fists. Their interference angered him still more, and he threatened me as he struggled in the restraining arms of his friends, uttering vicious invectives. His white hairs had been insulted by a callow youth; it was unthinkable.

In the midst of the tumult, which automatically adjourned the meeting, Dr. Davis approached the center of the mêlée, and was fortunately observed by Dr. Reamy, who immediately importuned him to hear the story of his insult. Dr. Davis characteristically pinched his nose to suppress his emotion. His facial expression was difficult to read, but I interpreted it as registering amusement. He placed his hand placatingly on the shoulder of the enraged man, and said, "Doctor, it is unnecessary for you to rehearse; I heard the paper, your discussion, and the reply. Come on out of here and we will get a little fresh air. We will walk to the hotel." There was a vigorous protest, and more menacing talk directed at me. Finally Dr. Davis drew him away, and someone told me that Dr. Davis wished me to join him. Reluctantly I obeyed and followed them out of the building. I was accustomed to the arbitrary methods of peacemakers.

When my late protagonist observed me as we reached the street, there was another outbreak. Dr. Davis said, "I asked Dr. Martin to join us. You know that Dr. Martin was one of my internes, one of my boys. I never before knew him to be a dangerous man. But you know, Doctor, you did give him some provocation. I scarcely could approve of the behavior of either of you."

I was amused, and our friend, though somewhat subdued, was still hostile toward me. We walked for a mile in the fresh air, and meanwhile the mollifying conversation of the wise philosopher whom we both revered placated the wild spirits. He quietly told us each wherein we had been wrong. He particularly scored me for so far forgetting myself as to insult the white hairs of age. He said, "Remember, Martin, when you attacked one individual in that audience, the sensitiveness of age caused one-third of that group to appropriate to themselves that thrust. Remember, I have white hairs myself, and I am not too old to think." Turning to Dr. Reamy, he said: "You were not very complimentary toward our young friend. You have had lots of experience as a trained orator. Dr. Martin is new at the game. While you have a grievance, he, too, I believe, has reason to protest. But the whole scene was rather discreditable to both of you, but it must not make enemies."

As we returned to the hotel, he backed us up against the wall in a secluded corridor, took each of us by an arm, and said: "Now shake hands and drop this foolish nonsense." We each looked at the other

while our peacemaker, with his strong face, smiled deprecatingly at us. We grasped each other's hands, and in spite of some reluctance, we too laughed, put our hands on the old chief's shoulders, and cordially thanked him for straightening out our difficulty. Thus a duel was averted.

The two foolish antagonists became friends, and in later years each would greet the other cordially, laugh, and inquire, "Are you still scrapping?"

I believe no one enjoyed this little diversion more than our respected friend, the great Prof. Nathan Smith Davis. This was at least the third time that this good officer had cheerfully served me when difficulties menaced. Bless his heart!

V

Literary work was confining and arduous, for I was doing much of it —preparing reports on phases of my work that were of interest to the profession; and concentrating all of my material pertaining to electrolysis for publication in a comprehensive volume entitled "Electricity in Gynecology,"* which included also an illustration of my new and improved portable galvanic battery. Teaching occupied much of my time, I was operating almost daily, and my large office practice kept me busy from nine o'clock each morning often until after one p.m. Practically every minute of my time was spent indoors, and I was beginning to feel the strain of overwork.

Isabelle was troubled by my loss of flesh and my anemic appearance, and during this long summer of intense heat she instituted a very wise diversion. Vacations had not been a part of my program, and I was not easily converted to the idea. One morning she announced that the afternoon belonged to her; that she would call for me at my office, take me to lunch, and afterwards—well, it was to be a surprise. It was. We landed at the Cubs' old baseball park on West Polk Street.

This became a tri-weekly practice whenever the team was playing at home. We knew nothing then of violet rays, but nevertheless an intangible something brought health, extreme joy of living, and "pep" that I had not enjoyed since my labors in the brickyard or on the farm.

*8vo, Philadelphia, 1890, 57–67.

17

1891. ON THE SHORES OF THE INLAND SEA

I. We Build Ourselves a Home. II. A Report of Failures. III. Research—Action of Galvanism on the Fertile Hen's Egg.

I

As ISABELLE and I took our customary long walks in sight of our beautiful fresh-water sea, we often remarked how few people of Chicago seemed to love that great pond as we did, and what a small proportion of the inhabitants of our large city had chosen the thirty-mile shore line for their homes. We both loved the beauty of our sea, its vastness, and its varying moods that frequently fitted our own—calmness, tranquillity, restlessness, turbulence, cruelty, composure, peacefulness. It never disappointed us.

No wonder then, when we planned and built a permanent home, that we located it on a street that bordered the waterfront—Lake Park Avenue, near 32nd Street. It was a modest, comfortable, twelve-room house, one of a pair of residences that we built. It had great eyes that looked from three stories—northeast, east, and southeast—out over the moving water that met the sky.

For years, at least one member of the family watched the sun appear on the horizon and the play of its light upon the water's surface; and at the day's end we watched the moon gradually reveal herself, leaving a golden path that led to our very door. From our ample porch on summer afternoons and evenings we watched the ships as they glided or rocked over its surface, north to Mackinac, east to the sandy shores of Michigan, or south to the other Chicago and Gary—the cities of steel; we watched the smaller skiffs as they plied in every direction.

Every temper of human life was exemplified by our great sea. Trage-

dies were enacted that wrung our hearts. One May morning a tempest stirred, and seven freighters with their cargo were forced by the raging storm to the shore between the river's mouth and 39th Street. A large one was smashed to bits upon the breakwater within a hundred yards of our home. Nine brave men, near enough so that their voices could be heard and the expressions on their anguished faces could be read, waited for the struggling life-saving apparatus to come within reach. They were huddled together around the projecting wheelhouse, the only part of their ship that was not inundated. They waited, expecting momentarily that their dragging anchor would lose hold and place them at the mercy of the raging sea, to be dashed to their death against the stubborn breakwater. They waited, as hundreds on shore endeavored to give aid, and as thousands of others wrung their hands in horror and helplessness, or dropped to their knees in prayer. The crash came, and nine brave seamen disappeared in the angry maelstrom. None was rescued.

Here we had builded our home, and here for many happy years we worked and enjoyed our friends, until circumstances called us to other parts of Chicago. But always we sought the view of the beloved inland sea. As these lines are written, I have only to turn my head to view its expanse, beginning at our very door, and stretching two hundred and fifty miles north to the Strait of Mackinac. Along its western shore line for miles extends one of the beautiful shore drives of the world, that finally vanishes, like the sea, at the horizon.

Isabelle and I have cruised over thousands of miles on the oceans, away to many lands, for that form of travel has given us the greatest happiness; and when we return and gaze from our windows at home, we tell ourselves that *our* wonderful sea is never dwarfed by the ocean, for on the greatest ocean our vision does not extend farther, the sunrise is not more beautiful, nor the moods of the sea more interesting, nor the tragedies of a storm more real.

Of the five greatest cities of the world, ours is the only one that is on the sea. To Montgomery Ward more than to anyone else is Chicago indebted for the preservation of the lake front. He was known as "the watchdog of the lake front" for he was insistent that the picturesque shore line should not be permitted to deteriorate into the backyard of the city.

II

Before the American Gynecological Society I presented a paper based on "Five Cases of Fibroids of the Uterus Unsuccessfully Treated by Galvanism."*

It was embarrassing to report failures. But I had taken great interest in the development of galvanism, and realizing its superiority over other methods of treatment in certain conditions, I became one of its leading advocates.

Anyone can learn to turn on an x-ray current, but it requires special training over a period of years to become an expert in the use of that valuable agent. Those of us who had obtained brilliant and satisfactory results in a large number of cases were aware that all fibroids of the uterus could not be benefited by galvanism, and the definite reasons we learned from experience. Some of our followers had failed to recognize these facts and expected far more from the treatment than was justifiable.

My recitation of five varieties of fibroids that did not respond to galvanism immediately clarified the facts. I stressed the necessity of carefully diagnosing every case and of selecting for this treatment only those cases that were suited to the procedure.

No report that I have presented has given me more genuine satisfaction than this one, in which I actually confessed failure in certain instances of a favorite procedure which I had supported so enthusiastically.

III

There had been intimation that the use of electricity in the region of the pelvis would destroy the fertile ovum, or the embryo in the process of its development; and by the same token, that the careless use, either of galvanism or of faradism, would terminate pregnancy. In my extensive use of galvanism in treating conditions of the pelvis, I was always careful to eliminate those cases in which there was a possibility of pregnancy. But I decided to conduct an experiment on hens' eggs that presumably were fertile. Two means were employed to overcome the nonconductivity of the eggshell: 1, scraping through 4 sq. cm. of

*Tr. Am. Gynec. Soc., Phila., 1891, xvi, 375–388.

the shell at either end, and carefully exposing the thin membrane surrounding the contents of the egg; and, 2, decalcifying a similar area of the shell with acid.

A given number of fresh eggs were segregated into four lots, properly marked, and put into an incubator, under the charge of an expert chicken-breeder. At the end of one week, a very strong faradic current (as strong as could be tolerated by an unanesthetized patient) was passed through one lot of the eggs for a period of five minutes; and a 20-milliampere continuous current of galvanism (electrodes 4 sq. cm. in area) was passed through a second lot, for a similar period. By means of a graded rheostat, the flow of the galvanic current was cautiously regulated.

After two weeks of incubation, the remaining two lots of eggs were treated in much the same manner, but the faradic current used was much stronger (such as could be tolerated only by an anesthetized patient), and the galvanic current was increased to 50 milliamperes.

When the eggs had been in the incubator the allotted time, chicks were hatched from 80 per cent of the first lot of eggs subjected to the faradic current, and 60 per cent of the second lot. But not one chick succeeded in piercing the shell of any of the eggs of either lot that was treated by galvanism.

This crude experiment proved to my mind quite conclusively that the galvanic current was fatal to the embryo of a chicken, but that faradization had little effect upon the eggs. And if electricity reacted in the same way upon the human ovum, the galvanic current was a positive feticide, whereas the faradic current was without such effect.

The scientists of later days will be amused at this amateurish attempt to arrive at the facts. However, the experience stimulated the amateur's imagination, and in the light of later and maturer experience, he could appreciate the rapidity with which scientific research in medicine had progressed.

18

1892. NEW DEVELOPMENTS IN SURGERY

I. A Belated Honeymoon. II. Preliminary Opening of the World's Fair. III. The National Conventions. IV. The Murphy Button. V. Ligation of Broad Ligaments. VI. An Improved Abdominal Operation. VII. A Renaissance of Surgery.

I

As a belated honeymoon, Isabelle and I had planned a trip by an old-fashioned Mississippi River boat from New Orleans to St. Louis, a trip that a recent magazine article had popularized. A definite objective was the wedding of Lillian Ellis, an attractive cousin of Isabelle's and the daughter of John Ellis, a representative in Congress.

Lillian was to be married to John Emerson at 7 p.m.—at the exact hour and on the same evening that our boat was to leave for the North; so the steamship company was induced to pick us up at a landing two hours north of the city.

Our baggage had been put aboard, and at the appointed time Isabelle and I appeared, togged out in our evening clothes. We created quite a stir among the large group of passengers, and wagging tongues were loosed and built up interesting surmises.

Of course we were a bride and groom. Didn't we have the bridal chamber and didn't we take the ship at an obscure landing to escape our enterprising wedding party? Or were we an eloping couple, fleeing from wrathful parents?

We soon became aware of the interesting situation and allowed the fairy story to develop. It was a delicious distinction that we accepted with greater amusement than would have been the case if we had been genuine newlyweds.

By degrees we developed a speaking acquaintance with the interesting passengers. We enjoyed our trip immensely, and as we were ap

proaching St. Louis, after a week of pleasure, a committee of the most curious came to us and wanted to know if we really were bride and groom, and if we had eloped. We evaded these and other rather personal questions by a mysterious silence. Finally we said, "We will tell you the truth. We did leave a wedding the evening we boarded this boat, but it was not *our* wedding. However, we are married. We are on our wedding trip. The date of our marriage was six years ago this month."

Then they *were* incredulous. One prudish young woman said, "We know that *that* is a lie." They never did learn the truth.

II

A preliminary opening of the great World's Fair was to be held one year in advance of the formal opening in 1893. Every loyal Chicagoan who could spare the time yearned to be present. We were particularly interested, because our home looked out over the waterway toward this exposition that was located five miles south, and which, too, bordered on the inland sea. For a year or more we had watched the great barges, loaded with steel and other building materials, as they passed our door. We had watched the great palaces emerge from the lowlands of South Park. We had watched the elevation of the Illinois Central Railroad right-of-way, the extension of street railways, and the construction of elevated suburban outroads that were to carry thousands of people to *our Fair*.

We had watched the organization and development of a group of young business giants who moved with precision and momentum to materialize a vision that was stupendous and artistic, and that in its consummation astonished the world.

Thousands of citizens of Chicago, of Illinois, and of the near-by states were present at this preliminary opening, to see the miracle and to show their interest. It was the beginning of an epoch in the building of international expositions.

III

During the week of June 7, at the Republican convention in Minneapolis, President Benjamin Harrison was nominated for re-election on the first ballot, and Whitelaw Reid was nominated for Vice-President of the United States. I was disappointed that I could not attend, as I

was reluctant to break the chain of my attendance at conventions which had nominated the successful candidates—Garfield, Arthur, Cleveland, and Harrison.

However, the Democratic convention was to convene in Chicago on June 21, and I had a "hunch" that I might after all see the successful candidate nominated.

A great "fire trap," called "The Wigwam," was in construction on the lake front for the accommodation of the Chicago convention. I secured tickets, and Isabelle and I were more or less regular attendants. (Rather, I should say that I was a regular attendant, for after the second session, her seat, which otherwise would have been vacant, was occupied by a stranger. Isabelle was not hilariously interested in a Democratic convention.)

She did, however, attend the session in which the first and only ballot was polled, and witnessed the enthusiasm over the nomination of Grover Cleveland, who became for the third time a candidate for the presidency of the United States. The nomination occurred at 2:30 a.m., and as we were returning home in a sleepy mood, I believe that my "respectable Republican" mate reminded me that our time had been wasted, as no one would be foolish enough to want a Democrat for President for a second term.

However, my "hunch" was well conceived. Each candidate whose nomination I had witnessed had been President, and each had been a good President. The vote in November, after a rather perfunctory campaign, favored Grover Cleveland, and he was elected for a second term.

IV

One day as I left my office in the Venetian Building and stepped into the elevator, I was greeted by Dr. John B. Murphy who abruptly said, "Martin, here is something that is going to revolutionize intestinal surgery," as he thrust into my hand a brass ball that resembled a miniature sleigh bell. I looked at it rather uninterestedly, and asked how the little thing was going to accomplish so great a feat.

He grabbed it out of my hand, backed me into a corner in the busy lower corridor, separated the ball into two pieces, took up the tail of my coat, thrust the stem of one piece through the frail cloth, turned it over,

and snapped the other half of the hemispheric apparatus over the stem as it projected on the reverse side of the cloth. The two ends of a cut intestine, he said, could thus be joined together in half a minute—a complete anastomosis. I was impressed by his enthusiasm, but doubted his sanity and asked him to untangle me from the contrivance. How I wish that I had demanded those brass "buttons" as recompense for the penetration of my garment!

Then he explained that this item of brass, after it had remained long enough to unite the intestine permanently, would detach itself, and be passed from the bowels by the natural channel.

I drew back and exclaimed, "Would you place that brass ball, an inch in diameter, into the intestines of a sick man when we make a fuss over a child swallowing a penny?"

"Nothing to your objection. I've tried it on many dogs without a fatality. I'm going to present my reports soon; and also regarding its use on humans."

Many of us had experimented with the ingenious but complicated decalcified boneplates, introduced by Nicholas Senn to accomplish intestinal anastomosis. I had demonstrated to my own satisfaction that patients could live after severed or injured intestines had been united by mechanical means, for I had used the device successfully in two cases, and as a last resort, but unsuccessfully, in as many more.

The Murphy "button" soon caught my attention in the literature. It was so simple that any operator whose surgery was clean, who knew his anatomy, and the indications for its use could employ it with ease. I used it once, and then I used it many times. Success attended every venture, but each time my night's rest was disturbed until the button had been recovered after its successful transit.

Senn and Murphy, with their two simple devices for intestinal anastomosis, initiated a chapter in intestinal surgery and established principles that will live as long as surgery is practiced. The Murphy "button" is even now a part of every surgeon's armamentarium, though it is but rarely used.

Senn's decalcified boneplates and the Murphy "button" will become interesting museum articles, along with the lithotrite, a device for crushing bladder stones.

V

One morning, as I was examining patients at the Post-Graduate Clinic under the careful scrutiny of several surgeons who were taking my course, I happened upon a woman who complained of hemorrhage which had persisted for months. Examination revealed a multiple fibroid, in which the uterine arteries, as large as lead pencils, were pumping blood into the tumor at a rapid rate. An abdominal operation was a procedure of choice, but I was rather inclined toward more conservative treatment, as the patient was frail and anemic.

Then, as by a flash, I was struck with the idea that it would be a very simple matter to ligate these arteries. The operation would be a minor one, as it would not be necessary to penetrate the peritoneal cavity.

My observers were aware of my abstraction. I asked two of them to examine the patient, and to note any peculiarities. They seemed perplexed. I called attention to the pulsating uterine arteries, and each immediately replied that they were unusually prominent. Desiring a little more time to consider my theories, I asked the patient to wait, and my group and I proceeded to examine several other patients. Practically every case of severe hemorrhage presented these same enlarged, pulsating arteries. Why had we been overlooking this important fact?

Impulsively, I exclaimed to my class of students, "A hemorrhagic fibroid tumor presupposes an enlarged uterus, because the bleeding comes from the interior of that organ; and if the uterus is enlarged, its blood supply is proportionately increased. Don't you see the significance of that fact? Can't you conceive that a simple procedure would instantaneously deprive that bleeding uterus of two-thirds of its blood supply? The operation would be simple and safe, and it is our duty to try it, if the patient will submit herself to the experiment after I explain to her that it has never before been tried."

When I finished my clinic, I called in the patient who had been asked to wait. In the presence of the students I drew a rude sketch to illustrate my findings and my proposed procedure, outlined the simplicity of the operation and the possible permanent benefit that would result, and carefully explained to the patient that so far as I knew it would be the first operation of the kind. The woman was ready to undergo the oper-

ation that very afternoon, but I advised postponement until she had talked the matter over with her family.

An afternoon's search of the reference books at the Newberry Library revealed no trace of this reasonable procedure. Independently, I had discovered an important surgical operation!

The patient presented herself at the Charity Hospital, and Nurse Corrigan arranged all of the details of preparation then customary for a major abdominal operation. My curious and enthusiastic class was present.

It was a simple matter to locate the pulsating arteries on either side, to sever the mucous membrane covering them, expose the actual blood vessels, and place around them a stout silk ligature, and to tie off the blood stream. It was deemed wise to place two ligatures on each artery, about half an inch apart, to insure against the possible development of collateral circulation. The ligatures were cut short, and the slight opening in the mucous membrane was closed. The same procedure was followed on the opposite side. The demonstration was over.

The patient remained in the hospital for eight days, and then visited the clinic every other day to report progress and to enjoy her distinction. The hemorrhage ceased immediately after the operation, and the natural monthly flow became less than normal. The operation was pronounced a success.*

However, there seems to be nothing new under the sun. My simple, original operation was complimented by two important claimants to priority. I quote my remarks on this controversy:†

"Vaginal ligation of the contents of the base of the broad ligaments for the cure of fibroids of the uterus was devised and performed by me as a new and original operation November 15, 1892, and was described and published in the April number of the *American Journal of Obstetrics* in 1893. In the January number of the *American Journal of Obstetrics*, 1894, I reported six cases treated by the new operation. . . .

"Immediately after publishing my first article on this operation there were two claimants for priority: Dr. Walter B. Dorsett, of St. Louis, and Prof. S. Gottschalk, of Berlin, Germany. Dr. Dorsett, in a letter to the

*Tr. Chicago Gynec. Soc., N. Y., 1892–4, ii, 24–40; Am. J. Obstet., N. Y., 1893, xxvii, 481–492; N. Am. Pract., Chicago, 1894, vi, 5–14; Arch. de tocol. et de gynec., Par., 1894, xxi, 739–744.

†"Treatment of Uterine Fibroids," pp. 92–93, F. A. Davis Co., Philadelphia.

American Journal of Obstetrics, claimed that he had suggested a similar procedure to my operation in an article he published in the *St. Louis Courier of Medicine*, in 1890, the article bearing the title of 'A Case of Atrophy of the Female Genitalia Following Pregnancy, and Remarks.' In this article he made the following observations: 'I believe that in the treatment of uterine fibroid . . . to ligate the uterine artery would not be an unscientific procedure. On the contrary, the more I have thought of it the more I am inclined to believe that it would be the most certain mode of treatment.' Dr. Dorsett, while advancing the theory, had not at that time carried it out on a living woman.

"Prof. Gottschalk based his claim to priority on an article read by him at the Brussels Congress, September 16, 1892, with the following title: 'Die Histogenese und Aetiologie Der Uterusmyome.' In the latter paragraphs of this article he casually suggested ligation of the uterine arteries, and stated that he had performed the operation twice. This is what he said: 'The bilateral ligation of the uterine arteries appears to be a therapeutic measure in this regard for the earliest incipient stages of myoma. This offers no difficulties in its technique; it is easily performed in a few minutes. . . . I have already performed this ligation in two cases in which I was able to early diagnose the development of multiple myoma, with best results.'"

[This operation was fundamentally simple, but because of the later safety of major surgery, it passed into disuse.]

VI

The consensus of opinion among surgeons was beginning to favor extirpation of the uterus by abdominal operation as the best means of relieving all of the symptoms that attended certain fibroid tumors. I note in going over the literature for the year 1892 that specimens were exhibited at practically every medical meeting as evidence of the success of this method. But an ambitious surgeon was frowned upon if he did not also frankly admit his failures.

At this time I exhibited "Specimens from a Series of Eleven Cases of Laparotomy."* Those of us who were doing much of this early work were convinced that our technique was faulty, as our mortality rate was much higher than in other types of abdominal operations. The principal reason for this unsatisfactory condition was the difficulty we had in firmly securing the mass pedicle from which the tumor had been severed, so as to prevent fatal hemorrhage.

*Am. J. Obst., 1892, xxv, 657–662.

Soon Benjamin Franklin Baer, of Philadelphia, suggested the simple procedure of locating the large ovarian vessels and the uterine arteries, applying forceps temporarily, and tying off each vessel. This simplified the whole operation. Because of traditional fear, I was rather timid at first about burying the treacherous pedicles out of sight. But it worked, and in time the mortality in these operations dropped under five per cent; then to two or three per cent; and later I had a series of one hundred cases without mortality.

VII

We were indeed pioneers, struggling to escape from the jungle of an unknown and unexplored wilderness. We were dissatisfied, and striving to reach safe environment. It was not possible for us to take a train, travel a few hundred miles, and sojourn at the clinic of a master. We were all in the same predicament. Surgery was not standardized. Each of us had worked out his solutions alone. The experimental operations that survived the test of time established their initiators as authorities. A renaissance of surgery was dawning. The wilderness with its jungle was being explored, and the most perplexing problems were being solved.

19

1893. WORLD'S COLUMBIAN EXPOSITION

I. "White City." II. We Entertain Our Friends.

I

The World's Columbian Exposition, commemorating the four-hundredth anniversary of the discovery of America, was opened to the public on May 1, 1893, and continued for a period of six months. John W. Root and Daniel H. Burnham, of Chicago, were responsible for the general scheme, and the grounds and landscaping were planned by F. L. Olmsted.

These builders conceived a wonderful plan, and inspired perfect team work. They brought to the New World the classic beauty of the Old, and fashioned it into another environment. The shore of the inland sea was an appropriate setting for the magnificent structures which were surrounded by beautiful gardens, and canals and water basins that reflected and amplified their glory.

The artists, proclaiming the perfection of the picture in its marble whiteness, would not spoil it by colored paints. It was called the "White City"!

Electric bulbs from Edison's laboratory preserved the purity of line after nightfall, and for the first time the brilliancy of the night competed successfully with the splendor of the day.

They builded better than they knew! Each artist was assigned his task. Each was inspired, and in his unit of the variegated tapestry he surpassed his best.

People came from all the world—the cultured and the untaught; the great and the unknown; the white, the yellow, the black—all races mingled, gazed in wonder, and were inspired. Dreamlike visions were carried back to palaces, to modest homes, and to huts of every land.

The visitors who desired merely to be amused were first attracted to

the "sideshows" of the Midway Plaisance where entertainment of every type and description was provided. From these scenes they wandered over the grounds, observed the great white palaces by the sparkling sea, walked on the wide sidewalks, made trips in steam launches or gondolas of Venice, and gazed at the ships of Spain on the artificial canals and lakes. They viewed machinery from far and near, and the objects wrought by the machines, by the hand of man, by the tools of sculptors, and by the pen and brush of artists; and as they marvelled at the works of God and of man, they grew in cultural stature.

The discriminating, the blasé, the conventional travelers began their tours of inspection with a casual view of the palaces of art, of science, of history, of education, of communication, of theology, the buildings of commerce, the halls of music, the exhibits from the nations of the earth, the restaurants, the amusement centers, and the beauties of the landscape. Casualness was transformed into interest, exploration excited admiration, and as the perfection of the scene was borne in upon them, they were impelled to remain, to wonder, and to applaud. In their wanderings they drifted to the Midway Plaisance, where they found not only every form of recreation, but a cross-section of the people enjoying their holiday. The admixture of interesting experiences caused these explorers to exclaim: "It excels all beauty"; and they, too, grew in cultural stature.

The Exposition of 1893 was the first to bring classical architecture to the door of untraveled millions in America. It brought to us something of all mankind—a glimpse into the homes and the environments of the different countries. It changed standpoints, and it brought the whole world onto a common meeting ground. It provided a liberal education, and it leveled human interests.

There were varying opinions regarding the particular features of the World's Fair that made for its outstanding fame. Some said it was due to the art collections that represented the best in painting and sculpture of all the world. Others said it was the thrill of viewing the Court of Honor from a gondola on the reflecting basin—the colonnade and the vista of the sea beyond; the white palaces illuminated at night and mirrored in the still waters.

The architect said that it was the artistic grouping of hundreds of classic palaces, depicting all types of architecture.

The man of commerce said that it was the greatest display of industrial products since the beginning of time—transportation, manufacture, communication, mining; and the premier of the monster—electricity.

The agriculturist said that he had seen more that was of interest and of profit to him in his own business than he could again view in a lifetime.

The musician delighted in the interpretation of his art. All were regaled at daily concerts with symphonies rendered by musicians of unsurpassed training, with Theodore Thomas as the director. The incidental and lighter music was furnished by the finest musicians from home and abroad.

The educator said the exhibition was a library of illuminated pages, with chapters systematically arranged; it was a graduate college for old and young, for the literary genius and the illiterate; the set of volumes contained all knowledge, and the literary style compelled perusal.

The casual observer shrugged his shoulders and said: "I can't answer your question, but it was the greatest show on earth."

Henry Adams, foremost among travelers and the cultured critics of history, said of the World's Fair:

". . . He set off to Chicago to study the Exposition again, and stayed there a fortnight absorbed in it. He found matter of study to fill a hundred years, and his education spread over chaos . . . and when one sought rest at Chicago, educational game started like rabbits from every building, and ran out of sight among thousands of its kind before one could mark its burrow. The Exposition itself defied philosophy. . . . As a scenic display, Paris had never approached it, but the inconceivable scenic display consisted in its being there at all. . . ."*

II

In our plan to entertain our friends, Isabelle and I stipulated that our guests might arrive on or after a specified time, but that they must leave on the appointed day in order to make way for their successors. Breakfast was served at the house and also dinner, unless arrangements for an evening at the Fair were made. The balance of the time was their own to go and come as they pleased.

*From "The Education of Henry Adams."

The summer was ideal, and as free of climatic disturbances as any of the many summers we have known in Chicago. Accommodatingly, the rain came at night, and left the daytime world clear and fresh. The temperature was equable, and only rarely was it hot.

From our home on the edge of the sea we viewed a continuous panorama of excursion ships, private yachts, launches, and small motor boats as they plied their way. And at night we were entertained by displays of fireworks along the beach at the Fair grounds, six miles away. Great searchlights illuminated pathways over the expanse of the sea at the front door of our city.

The Exposition of 1893 set a model in artistic beauty and comprehensive worth for exhibitions and entertaining recreations; and it has not yet been surpassed by human effort.

20

1894. THE WEST—ALASKA

I. Vacation. II. Our Sea in Turmoil. III. California—Medical Politics. IV. Survival of the Fittest. V. The Great Northwest. VI. Alaska. VII. The "Fair Weather Alps." VIII. Muir Glacier. IX. Tragedy Threatens. X. Reaction.

I

For the first time in my life I was completely tired out. Though I had been working sixteen hours a day for ten years, never before had I been known to lack keenness for work or adventure. But after the strenuous activities of the previous year—elaborate post-graduate courses, entertainment of medical visitors from the two hemispheres, private practice, clinics, and administrative work in connection with the Post-Graduate Medical School—I found myself becoming irritable and irascible in my contacts with some of my associates.

Isabelle sensed the desirability of a change, and as usual diplomatically suggested that we visit Alaska during the summer. The trip was arranged to include the American Medical Association, which was to convene in San Francisco, June fifth to eighth.

Our plans included a short stop in Los Angeles, Oregon, Washington, British Columbia, and a sail through the fiords of Alaska, and return via the Canadian Pacific Railroad.

II

The spring had been a stormy one. Early in May, about a week before we were scheduled to start for California, fury broke, and a terrific northeast gale stirred our sea to a magnificent rage. The storm increased in force until it surpassed anything we had ever known. The waves dashed higher and higher over the breakwater in front of our house until they deluged the railroad right-of-way, and finally pounded against

the sea wall that guarded the eastern border of our street. The spray was scattered over the front of our house, into our windows and the entrance hall.

Shipping had opened a month before. Ships were crashed to bits at our very door, and the crews perished in the turmoil.

III

Off on our first long trip, we stopped at Los Angeles, a struggling town full of hope and of promise, and an assumption of destined grandeur. We surveyed and admired the city with its existing charm, and were ready to concede that the great things that were foretold would soon become realities. Then we continued on to San Francisco.

The forthcoming election of officers and Trustees of the American Medical Association, and of the Chairmen and Secretaries of the various sections, caused the usual stir of medical politics at the San Francisco meeting.

Soon after my arrival I was sought out by my lifelong friend, Joseph Eastman, of Indianapolis. He was an outstanding surgeon, a writer of force, and his long and interesting career had been punctuated with many noteworthy achievements. During the Civil War, he saw service in the line and in the medical department. Dr. Eastman was fifteen years my senior, but he treated me as an equal and a friend; and I was proud of the friendship.

For a number of years the section on obstetrics and diseases of women had boasted of power and influence. Dr. Eastman was Chairman of this section at the San Francisco meeting, and said that he was going to use his influence to have me elected as his successor. Though I was not insensible to the great compliment paid me by my friend, I was not interested in the political phase of the Association, and frankly told him that in my opinion it was unfair to thrust me forward, as some of the older and more deserving men were really entitled to the distinction by virtue of experience and reputation. He brushed aside my objections by saying: "It is not a matter of age but of fitness. Anyway, I have the appointment of the Committee on Nominations, and all you will have to do is to stick." I was definitely embarrassed, and protested, but his influence was paramount, and he was accustomed to carry out his plans. I promised him that I would do nothing, one way or another.

He replied that that was all that would be required of me—I was "just to stick."

I did not realize what "just to stick" meant. There were a number of experienced politicians among the rank and file who constituted the section, and they had their candidates. The Committee on Nominations was carefully selected and, I presume, told "just to stick" to their instructions.

On election day one of my close friends in San Francisco invited me to attend a luncheon at a local club. The guests included the influential members of the section, of whom my friend was one. My position in a place of honor at the head table amazed me. Clearly, on my merits, I was not entitled to it. I spoke of it to my host, a delightful man. He ignored my protest, and immediately proceeded to make me feel at home. The seating of the guests may have been an accident, but at least I was welcome.

After luncheon, three of my distinguished friends asked me to join them for the short walk back to headquarters, where our section was to convene to hear the report of the nominating committee, and to elect officers for the ensuing year. As we walked along, my friends began to press me for my opinion as to the selection of our next Chairman. I replied that I knew nothing about the politics of the situation; and since I had no influence, I had no particular candidate. Any one of my companions, I said, would be good material. One of them intimated that he was on the nominating committee, and another had some other excuse.

"Well, what would you think of Dr. So-and-So [our host at luncheon]?" I assumed, of course, that one of his distinction had already been Chairman, but my companions said that he had never been a candidate.

The next thrust was: "Wouldn't you favor him for the position, Dr. Martin?" Like a flash I realized the subtleness of politics, and the significance of our Chairman's injunction when he asked me "just to stick."

I replied with some emphasis that it was not a matter of my opinion, since the nominating committee of select men had undoubtedly carefully canvassed the situation.

"Then you would favor Dr. So-and-So for Chairman?" I replied that I would favor no particular candidate of a dozen good men whom we

might select, as I expected to vote for the recommendations of the nominating committee.

As we entered the meeting hall, one of my companions was immediately called to the platform to present the report of the nominating committee. Chairman Eastman looked distressed when he saw me enter with my three friends.

The nominating committee "stuck," my name was presented, and I was unanimously elected Chairman of the section.

I did not feel too elated! It was my first real baptism in politics, and the circuitous and subtle procedures did not appeal to me.

IV

The following day the newly elected chairmen of the various sections were invited to a get-together luncheon. We were a goodly assembly. President James F. Hibberd of the Association presided, and in my inexperience I was dumfounded when he called upon me to respond in behalf of the section on obstetrics and diseases of women. I rose to my feet, absolutely at sea for a theme. I pondered for a few seconds, and then stammered out:

"I know little concerning the medical history of California. I have heard much of its climate. But the thing that has impressed me most is the physical magnificence of its men and the impelling charm of its women." (Happily this brought forth a cheer and applause, and I had time to think.) "These sentiments are not uttered as mere compliments to our hosts, but they are substantiated by history. Who of our people were the first to settle in California? The men of '49, the most stalwart among our citizens! Adventurers, men of vision, men of action. What did they do when adventure and riches beckoned? They did not hesitate, but set forth on the long trek to the fair country of great promise. Three-fourths of them never reached their destination; they died of hardships on the way. Only the strongest among them survived and found their gold.

"These pioneers were intrigued by the wonderful climate, by the beautiful scenery, and by the satisfaction of achievement. They established a propaganda that has been amplified during every subsequent decade and that early reached the less adventurous people of the East: 'Come West, to the land of sunshine, the land of plenty.'

"Twenty years later the ships and railroads presented an easier and more comfortable means of travel. Then other men and women of culture faced the West, and, with greater enterprise than some of their neighbors, moved to California.

"In accord with Nature's decree, a union of the stalwart sons of adventure with the cultured daughters was inevitable.

"And so we see before us today, in the brilliant sunshine of this incomparable Pacific Coast, the survival of the fittest, the union of the giant and the beauty. And now even they themselves admit the magnificence of their surroundings, and remind us, if we are in doubt, to look about us!"

The audience was generous, and I was satisfied with my theme.

V

We spent three days at Seattle, a thriving young town that was vying with other cities of the coast for domination. We were guests of the Chamberlains, relatives of Isabelle's. Our stay was a round of interesting explorations. We viewed the beauties of Lake Washington, and of Mt. Tacoma, as it was then called by the majority, but now known as Mt. Rainier.

VI

The trip through the fiords of Alaska was just beginning to attract the attention of tired minds and adventurous travelers. Gold was not discovered in Klondike until 1896, and the Yukon was still uninhabited. Our trip included Pt. Townsend, Juneau, and Sitka. Our little steamer, the "Topeka," was snug and comfortable, far removed from the luxurious present-day sea palaces. On shipboard, we found a congenial group of Chicago friends—Dr. and Mrs. D. A. K. Steele, Dr. and Mrs. William E. Quine, and Dr. Henry P. Newman.

It was a restful and stimulating experience to be detached from the world for two weeks with the pleasant companionship of lifelong friends; to breathe in the unvitiated air; to sail calmly through the salt-water fiords, by the beautiful mountain ranges from the tops of which, at frequent intervals, cascades of pure water fell thousands of feet, sometimes touching the sea close to our moving ship; and to have ever changing views of unsurpassed beauty by day and by night. The sun

scarcely set in this northern clime. Yes it did set, or seemed to set; but soon it reappeared and set again and again, until it began to rise; and finally it rose in earnest after innumerable false attempts.

VII

One morning we were advised to rise early, for if it were clear we would have a view of the "Fair Weather Alps." So we were all on deck betimes. At that point North in June, the tops of the Fair Weather Alps are never beyond the range of the skirting sun. While the sun had not appeared for us, although it was dawn, the serrated peaks of that mountain range were painted with a blaze of glory. We had hours in which to view the marvelous scene. We gazed in that morning air till our eyes were feasted, went below and had our coffee and snatches of breakfast to warm our chilled bodies, and then returned to the feast. Meanwhile we were drawing nearer and nearer to the range of mountains, and as we came close by, the line of sunrise was approaching the base of the great hills; and presently the sun appeared above our horizon and flooded us with its brilliant rays.

VIII

As we continued our trip, we found ourselves surrounded by icebergs. The first ones we encountered were of small dimensions, but as we traveled northward, they were of greater proportions, some larger than our frail ship. We were entertained by booming noises every few minutes, not unlike the sound of distant cannons. We were told that we were approaching the Muir glacier that had been discovered, explored, and described by Prof. Muir but a few years before, and that the "booming noise" occurred each time that one of the huge masses broke away from the great mountain of ice and splashed into the slowly moving river to become another iceberg and to find its way to the sea.

At last in the beautiful evening a great palisade of ice stretched across our path in the distance. It was several miles wide and had a sheer height from the sea of some two hundred and fifty feet. Our approach to it was awe inspiring.

We were told to keep our eyes on it, as another iceberg was about to be created! A few tons of loosened ice fell as a preliminary warning. A great roar commenced, as from the throats of monsters, and with a final explosion a huge block of ice, as tremendous as our largest opera house, plunged into the sea and threw the whole bay, with its scattered icebergs and our little ship, into a turmoil in the boiling waters. The berg disappeared into the depths of the sea and elevated the level of the water. But the disturbance caused by the plunge was slight compared to the next scene, when the monster emerged from the depths, toppled over veritable villages of proud, newborn icebergs, and finally settled itself to rest, with but one-sixth of its huge mass revealed above the sea level—but sufficient to make another impressive mountain of ice.

Our little ship continued to rock, awaiting the next visitation.

IX

The next morning we were invited to go ashore, each with a pike in hand, to explore the mystery of our surroundings. Only meager precautions were meted out to us. We climbed the steep bank at the side of the bay, half a mile below the face of the formidable palisade. We skirted the bay and wended our way toward the glacier, a procession of inexperienced explorers.

It was rough and difficult. Most of our pikes were mere playthings—blunt iron pegs, unsharpened, driven into soft pine staffs. Soon we came upon a well-like hole in the ice and peered into the pit. One hundred feet below a torrent of water rushed to the sea. We laughed, and cautioned our followers of the danger spot.

Rapidly we passed along, as our own little group was ambitious to reach the top of the huge glacier. Ultimately, after a strenuous climb, we attained a point several hundred yards above the edge of the projecting palisade, from whose face the huge iceberg had been born. As we looked down upon the glacier, it had the appearance of hundreds of steep gable roofs, their sharp peaks ending in eaves. The peaks were several feet apart, and in the chasms we could hear and see the water rushing toward the sea far below.

Dr. Quine led the way, and by hook or crook had negotiated several of the dangerous bridge-like connections and slippery peaks. Mrs. Quine trudged along with Isabelle and me. Dr. and Mrs. Steele envied Dr. Quine and proceeded to catch up with him. I was afraid lest an accident occur, but nevertheless I followed the Steeles.

Mrs. Quine, whom we had left behind, cried out, "Stop my hus-

band!" She had looked into one or two of the crevasses between the peaks. As I went up the icy slope, I made a few nicks in its slippery side to aid as a foothold in the descent. Finally, upon the little peak were gathered all of our party excepting Mrs. Quine and Isabelle. We stayed for a few moments and then decided to return. I made the first descent and accomplished it successfully; then came Dr. Quine, who slipped, sat down, and by the aid of his pike steered himself to safety. Next came the Steeles. Suddenly Mrs. Steele slipped. Her husband himself was in a precarious position on the glassy side of a ridge, just beyond and below her. His one foot was lodged in a slight notch, and he was attempting to steady himself with his pike. Mrs. Steele's feet struck his, dislodged them, and our two friends began rapidly to slip down the slope toward the dangerous eaves that overlooked the deep crevasse. Dr. Steele frantically endeavored to stay their progress with the aid of his frail pike, which broke under his efforts. It was a desperate situation. A deep crevasse lay between them and me. I bridged the chasm with my body and thrust my strong pike into the slippery surface that lay in the path below their unsteady feet. A slip would have meant sure death to the three of us. But the strong pike held fast in the brittle ice. My friends were halted on one side of the dangerous crevasse over which I was suspended. With difficulty Dr. Newman, Dr. Quine, and the two women extricated the three white-faced and frightened adventurers.

Our enthusiasm was definitely dampened, and slowly, with bated breath, we descended. When we reached the spot where on our upward journey we had looked into the whirlpool of a deep well, then six feet in diameter, we realized that the opening had certainly expanded greatly for nearly half an acre of ice crust had caved in. We trembled as we recalled that one-half hour before many of our passengers had clambered over a surface that had disappeared.

We were a serious group as we wended our way to the beach near our ship. We were safe at last! Our interest was centered on a huge iceberg that lay about fifty feet from the shore. We followed its contour to its lowly beginnings in the shallow water close to us. We wondered how long it had lain there and speculated as to how long it would remain. With no warning there was a sharp report and again in our inexperience our lives were suddenly endangered. The great monster of ice snapped

in two, tore away, plunged over, and in its wake left a tidal wave six or eight feet high that swept over the shore. We dashed for the steeply inclined beach and clambered up just in time to escape the rushing water.

Our several harrowing experiences roused our indignation, and we immediately interviewed our captain. Why had he not warned his passengers? Why had he not provided experienced guides? Why were our pikes made of such flimsy material? Why weren't ropes provided to keep his passengers from danger or to rescue them in an emergency? We gleaned but little from the imperturbability and silence of our auditor, but the effect upon us was sobering and enduring.

X

Our wonderful vacation came to an end with the long restful railroad ride through the Canadian Alps to our home city, and to welcome work. We had made lifelong friendships, such as are possible only through an association of this kind.

My mental attitude was definitely changed by this diversion. I was astonished to realize that my troubles were really of so little consequence. The perspective of things worth while obscured the small, irritating problems. A new man had been born, and I was ready for abundant work which, fortunately, was awaiting an attack. It was a lesson that has served me throughout the years.

21

1895. "INNOCENTS ABROAD"

I. Baltimore Meeting of American Medical Association. II. Dr. Howard Kelly. III. Off to Europe. IV. Joseph Lister, versus Lawson Tait. V. Rural England—Scotland—Wales—Ireland. VI. Home Again.

I

The American Medical Association met in Baltimore June seventh to tenth, and considerable responsibility devolved upon me as Chairman of the section on obstetrics and diseases of women, at that time the largest section of the Association. I was rather nervous as I had never before participated as an official.

Our meeting was held in the new Music Hall. The speaker's platform was a large and formal affair, and I felt entirely out of place on this isolated elevation, alone with the Secretary of the section, Dr. X. O. Werder, of Pittsburgh.

In the department of scientific exhibits I demonstrated a comprehensive medical and surgical dynamo that had been perfected by my young friend, Elmer Sperry. He combined in one machine all of the advantages of the best cautery batteries (with a current of large amperage and low electromotive force, necessary for minor surgery of the nose and throat), and the series of batteries which gave a current of small amperage and high electromotive force.

This apparatus was connected up with the power furnished by the building. It attracted a great deal of attention, as it was prior to the time when the desired variety of current for street and house lighting could be furnished simply by slipping in a plug or turning a switch.

II

I was much interested in the work of young Howard Kelly, who had been appointed professor of the newly created department of gyne-

cology of Johns Hopkins University. He was scheduled to perform a hysterectomy, an operation for which he was famous. He prided himself on his technical skill, and his pride was thoroughly justified.

It was my good fortune to be placed in a desirable front seat, next to Dr. Nicholas Senn. At least two hundred interested surgeons and near surgeons were crowded into the horseshoe of the large operating amphitheater.

A patient was wheeled in, anesthetized and prepared for the preliminary procedure—catheterization of the ureters. The nurses gowned in spotless white arranged the instruments, and placed the protecting antiseptic sheets and towels about the field of operation. Several internes stood by, ready to serve their chief. The chief assistant was a young man from Indiana, Dr. John G. Clark, who afterwards achieved international fame as the distinguished professor of gynecology of the University of Pennsylvania.

Expectancy was rife among the audience as Professor Kelly appeared. There was prolonged applause. Modestly he assumed his place on a stool at the end of the table and waved his audience to silence (probably having in mind the unseemly manifestation and particularly the germ-laden dust that the active demonstration had disturbed). The frontal mirror was slipped into place on the operator's forehead as he picked up a ureteral speculum with one hand and his trusted bougie with the other—both instruments which he himself had devised. Then he turned and asked one of the spectators to time him. (He had the reputation of extirpating a diseased uterus in five minutes.) "We will not risk our patient by haste, but I do wish to demonstrate the simplicity of the procedure."

In little more time than is necessary to tell about it, both ureters were catheterized with the stiff bougies, the patient's legs were extended, the abdominal incision was made, the diseased uterus explored, and the distended ureters identified—for they must not be injured; then the uterus was explored, and as it lay in the operator's hand, the broad ligaments were clamped on either side, cut separately, and the body of the uterus freed. The cervix was then severed, the stump ligated, and the organ held high as the operator turned and called for "time." "Eight minutes" was the reply. Practically every man in the room was

ready to testify to the miracle, and was anxious to spread the news of the marvelous performance.

The operation was finished so far as Dr. Kelly was concerned. The patient was wheeled to one side and Dr. Clark proceeded to tie off the broad ligaments, to ligate the bleeding points, to suture the wound, to remove the ureteral bougies, and to apply the dressings.

The patient had not been slighted for Kelly was the greatest surgical technician of his time.

Though there were dozens of our most eminent surgeons in the audience, probably not one of them could have completed the delicate procedure of placing those ureteral bougies in less than fifteen minutes, to say nothing of the real operation that followed.

Someone said to me afterwards: "I was sitting watching Prof. Nicholas Senn during Kelly's operation. Do you know what his expression reminded me of? The surprise that might have been seen on the face of an American Indian at the approach of civilization."

And thus the fame of the Johns Hopkins Hospital and Medical School flourished; and why not? We had witnessed in action but one of the "Big Four" upon whose reputation this institution was founded: William Osler, William H. Welch, William Stewart Halsted, and Howard A. Kelly.

III

I had accepted an invitation to attend the meeting of the British Medical Association in London, July thirtieth to August second. As this was our first voyage to foreign shores, it was necessary to make careful preparation, and to conserve resources. However, we wanted to see thoroughly what we saw, so we planned to confine our sightseeing to Paris and Great Britain. We selected the "City of New York" which suited our time for both the outgoing and return voyages. It was of course the greatest adventure we have ever had.

We landed at Cherbourg, and spent a week in Paris, with headquarters at the old Hotel Normandie. We were there on the fourteenth of July, Bastille Day, and thus witnessed the three-day celebration, during which there is carnival and dancing in the streets by the people of that city—the goal of every traveler.

We toured over her boulevards and her highways, and through her

parks; visited her churches, galleries of art, museums, castles, libraries, public buildings, theaters, restaurants; we viewed her rivers, bridges, fountains, and monuments.

We attended the races at Longchamp, where Isabelle attracted an English officer with whom we formed one of the agreeable acquaintanceships that result in the course of travel. He proved to be an army officer attached to the Woolwich Arsenal, in England. He pressed upon us an invitation to visit him at the Arsenal, which we did while we were in London; and it was a delightful experience for the two young and inexperienced travelers.

We crossed the Channel to Southampton, and went directly to London. The headquarters of the Association were at the Hotel Metropole, and we selected the near-by Victoria as our abiding place.

Everyone who goes abroad for the first time begins his tour of inspection with London Bridge, the Tower of London, the British Museum; then Westminster Abbey, St. Paul's Cathedral, Houses of Parliament, National Gallery, palaces, monuments, Guildhall, parks, zoölogical and botanical gardens. We delved happily daily into the program that had been laboriously worked out at home—following "Baedeker" as our guide.

IV

Many invitations for functions of the British Medical Association awaited me at the hotel. One in particular, for the annual dinner of the British Gynecological Society, embarrassed me, for it bore a notation: "Decorations." I was at a loss to know what to do if one did not possess decorations—whatever they might be. I soon learned that one would be welcome without decorations, as I "would not have time to arrange for one by special influence or purchase," according to the valuable information that was imparted to me by an American doctor friend who had traveled much.

The banquet was held in the Whitehall Rooms of the Metropole. As I entered the antechamber, feeling rather forlorn and strange, my name was called out, I shook hands with the Duke of York, and passed on. An attendant led me to the table diagram, but I could not locate my name.

Suddenly in my bewilderment a hearty voice called out across the

table: "Well, well. How is the distinguished Dr. Martin of America?" It was Prof. August Martin, of Berlin, who had attended the Washington meeting of the International Medical Congress eight years before. I was delighted and my loneliness was immediately dispelled.

Then he said, "Come over here. You are sitting near me." He was the guest of honor, and the place he indicated for me was also at the head table, just to the left of the speaker, Dr. Clement Godson. I was troubled. Surely there must be some mistake. But there it was; not "Franklin H. Martin," but "Franklin (hyphen) Martin."

Others in the group were Lawson Tait, the famous abdominal surgeon, Sir Joseph Lister (afterwards Lord Lister), Prof. G. Apostoli, whose work in electrolysis I had followed for a number of years and whose paper I discussed during the course of this London meeting, and a long list of noted men from the countries of Europe and America, many of whom I knew. Certainly I had fallen into distinguished company.

At my left was a young gynecologist who had been selected to look after me, and next to him sat Lawson Tait. After we had been formally greeted by Chairman Godson, my young friend presented me to the forbidding-looking Lawson Tait, with his large head which was abundantly adorned with hair and whiskers. When he identified me as an American, he looked me over, laughed, and entered upon a criticism of our crude methods. He pretended that he knew me and that he had read some of my dreary papers. I informed him that I had been on his trail for a long time, as I was a friend of Joseph Price and Byron Robinson, over whom he had cast a hypnotic spell, for they boasted continuously of his sleight of hand technique. It was all good-natured banter, for I, too, was caught in the spell of this giant's personality.

It was a great banquet, with about four hundred guests in attendance. A professional master of ceremonies made all of the announcements and seemed to run the whole show. He was covered with chains and medals, and wafted a wand of some kind. I was highly amused, and began to feel thoroughly at home when the speeches began.

The Chairman called for order and made a few remarks. In closing, he announced that a number of distinguished foreign guests were present, among them two Martins ("Hear! hear!") one from Germany and

the other from the United States. They had journeyed far and he wished to assure them that they were welcome.

Then the master of ceremonies recited a brief list of distinctions and proposed a toast to Prof. August Martin, of Berlin.

There was stamping of feet and loud acclaim as Prof. Martin, his ample figure covered with decorations, got to his feet and made a nice speech, which included a humorous reference to the recent Parliamentary election in England.

As he sat down, Lawson Tait leaned over, caught my arm and said something to the effect that "we will now hear from the smart young sparrow from the States."

Simultaneously the stentorian voice of the master of ceremonies proposed a toast to "Franklin-Martin of the United States," and read an astonishingly long citation of my worthy accomplishments!

I was paralyzed. What was I to do or say? Meanwhile the stamping of feet and calls of "Hear! Hear!" increased in volume. My neighbor, Lawson Tait, shook his finger at me, and laughed derisively. I did not move, though my neighbors and the Chairman urged me to respond. Presently I heard welcome murmurs of "Murphy, Murphy. John B. Murphy, of Chicago." The fame of the inventor of the "button" had spread afar. I joined in the call for Murphy. He responded promptly with great eloquence and ended his brief speech by proposing a toast to Sir Joseph Lister. In my humiliation I listened and tried to think of something I could say if they were to give me another chance. Happily, at the mention of Lister, the whole house was on its feet and Sir Joseph received a great ovation, to which he responded briefly. Lawson Tait was muttering some uncomplimentary invectives that irritated the worshippers of Lister. Suddenly I was longing to speak. Was I to have another opportunity?

For years Lawson Tait, with his brilliant surgery, had been an unrelenting critic of Lister. Tait averred that the antiseptic pronouncements involved were nothing more nor less than the exclusion of bacteria from wounds, and it became increasingly apparent that germs could be eliminated through mechanical means—washing and scrubbing with soap and water—as well as through chemical destruction.

Lawson Tait claimed that the Listerian principle was not responsible for the change from the use of chemicals to other means of excluding

germs. He, himself, he maintained had established that principle. And he averred that much of the clean surgery that was rapidly developing, and which he (Tait) practiced with such brilliant results, had nothing whatever to do with Listerism.

It was a bitter tirade, carried on almost exclusively by Tait, and nothing is more irritating to a controvertist than to be ignored. However, there was a wide breach among surgeons, especially in England, as many of them failed to recognize the underlying principle of Listerism—that bacteria were the actual cause of infection. The means of their destruction or exclusion was a minor consideration, so long as they were eliminated. Surgical England was divided by fundamental principles versus details.

The reannouncement of my name brought me to my feet. I had something to say, for my lion-headed friend, Mr. Tait, had irritated me.

No record, so far as I know, was made of my maiden effort as an international orator. My principal recollection of the event is the fact that I was thoroughly in earnest. First I paid my respects to the surgeons of England and thanked the speakers for intimating that we were "brothers" and not "cousins" from over the sea. Then I said that it was a rare privilege to meet Lister and his able followers face to face. There was, however, one phase of surgical England that we from afar, probably because of our better perspective, were unable to comprehend, namely, the one-sided controversy in criticism of the work of Sir Joseph Lister that was being carried on by Mr. Lawson Tait, the brilliant technician who was building a reputation by putting into practice the fundamentals actually established by Lister—principles that must and would remain for all time. The work of Tait dealt with a detail of the application of Lister's great principle—valuable and spectacular, yes; but nevertheless only a detail.

The die was cast. Shouts of "Hear! Hear!" from all sides drowned out my voice. I dared not look at Tait, but I was conscious of his growls and threats. I raised my hand for silence and proceeded.

What would the future say of the petty criticisms of Lister and his principles? Why was England, the home of this great prophet, the last to applaud his genius? Why were Germany and France the first to recognize the value of his work and its far-reaching possibilities?

I, a remote colonist of great England, realized that my remarks were

not conventionally diplomatic, but we all loved the mother country, and many of us overseas were astonished that so petty a quarrel could arise over so great a thing. We in America were cognizant of the value of Lawson Tait's work, which aided in the practical application of Lister's principles. How wonderful it would have been if the brilliant critic had acknowledged his debt and become one of Lister's distinguished followers. "Hear! Hear!"

I recalled that my confrère, Dr. Murphy, had proposed the health of Sir Joseph Lister, and I asked the privilege of proposing the health of the other great surgeon who, though he was reluctant to give credit to the Master, nevertheless was instrumental in benefiting mankind by disseminating the principles of antiseptic and aseptic surgery, and I predicted that history would forget or forgive his criticism. There was profound silence, followed by many expressions of approval, punctuated with calls of "Hear! Hear!"

In the midst of the confusion I finally succeeded in proposing the health of "one of England's most distinguished abdominal and pelvic surgeons—Mr. Lawson Tait, of Birmingham."

It was difficult to determine whether or not I had made a *faux pas*, or if the preponderant partisanship caused them to forgive the foreigner his lack of diplomacy. At any rate, they were polite, and I received vigorous and rather prolonged applause. Several of the guests near by shook hands with me and uttered something that I interpreted as commendation.

I carefully avoided looking in the direction of Mr. Tait. When in the lull the eminent gentleman was asked to respond to my toast, I turned to him and said, "Now it is your turn." He stood up and good-naturedly shook his fist in my direction. Surprisingly, he did not deal ruthlessly with me. He was rather inclined to be complimentary.

As he finished he came over and sat down beside me. Unfortunately my commitments prevented me from accepting the cordial invitation he extended to visit him at his clinic. I have since regretted that I did not make a special effort to see him operate.

I was elated and thoroughly stimulated as the meeting adjourned. My young friend and guide said I must go to the fête in the gardens of the Royal Botanic Society. We stopped for Isabelle, and a gay group of us went to the reception. There was brilliant illumination, music every-

where, and perfect weather. We promenaded through the large conservatories and over the extensive grounds as our guide pointed out all of the celebrities. At ten o'clock the Duke and Duchess of Teck arrived to receive the guests.

V

Altogether we spent about ten days in London. We coached to Oxford on the top of an ancient tallyho, with a traditionally thoroughbred driver and six trotting horses, which, for speed's sake, were changed every ten miles. We were accompanied by Miss Rheta Lorton and John Marder, young people of Chicago, whom we chaperoned. It was an ideal summer day in rural England, and we were constantly thrilled with delight.

We stopped in Oxford at the famous Hotel Mitre, that had been added to throughout many centuries. During two days we surveyed the places of historical interest in and about that ancient seat of learning, and endeavored to absorb some of its atmosphere.

We traveled beyond, principally by coach, to the lake region of England, and there, with a quaint hotel as our headquarters, we drove about the charming countryside each day, absorbed in its beauty and its centuries of traditions.

Then on to Glasgow, along the route of the conventional tourist, through the Trossachs by coach and by boat, and finally to Edinburgh that we had longed to see and to enjoy, and that we found both fascinating and beautiful.

There was much to interest me in this great medical center. I visited the old wards of Joseph Lister in which, as a provincial doctor, he had conducted many of his experiments and performed many of those early operations that were to revolutionize the surgery of the world.

We pursued our course according to the method of untraveled Americans—to Wales for two days, and across the North Channel to Ireland which intrigued us. Beginning at the Giant's Causeway in the north, we made our way through the length of Ireland, coached to the lakes of beautiful Killarney, to the sea again by Glengarriff, accepted of the gifts of the Blarney Stone, and on to Cork. It was a rapid pace, but we absorbed memories that even time cannot efface. And so back to London.

VI

After six weeks of delightful travel among the charming French, English, Scotch, Welsh, and Irish, we again boarded the S.S. "City of New York" and sailed for home. As we drew close to the American shore, we peered into space, eager for the first glimpse of our own land. In spite of its newness, it was a welcome sight. We enjoyed the hotels to which we were accustomed and loved the U.S. English that greeted our ears. And as we were welcomed by the colored waiter on the Limited train to Chicago, we fairly wept for joy over real ice water. The two "innocents" were at home again!

22

1896. INNOVATIONS

I. The Post-Graduate Medical School Builds for Permanency. II. Dress Reform in the Operating Room. III. Training of Nurses. IV. Experimental Laboratory. V. Inspiration of Clinical Teaching. VI. Political Conventions. VII. Bryan Makes History.

I

BECAUSE of expansion of the medical department of the University of Illinois, and as the Post-Graduate Medical School and Hospital occupied the portion of the block of ground which they required, we were bound to be a constant source of embarrassment to them. Then, too, the suggestion of a change of location appealed to some of us who had been reluctant to leave the South Side, where we were established originally, for by so doing we had lost clinical contact with several important hospitals and their extensive clinical facilities, namely, Mercy, St. Luke's, Woman's, Michael Reese, and the new Wesley Hospitals.

Before accepting flattering financial offers from our rivals, we sought a site on the South Side, at 2400 Dearborn Street, in the block opposite the new home of Northwestern University Medical School, and Wesley Memorial Hospital. On September 1, 1896, we moved into our new quarters.

"The Post-Graduate Medical School and Hospital has just completed a magnificent building thoroughly equipped for modern scientific post-graduate instruction; convenient surgical amphitheaters; fine, well lighted laboratories and clinic rooms; comfortable reading and smoking rooms; automatic ventilation; electric lights and elevator. . . ."*

We were very proud of the ornate, seven-story, brick structure, one of the first fireproof hospital buildings erected in Chicago. It was carefully planned for efficiency and service. We had accommodations for one hundred patients, and a commodious out-patient department. The amphitheater seated two hundred and fifty students.

*J. Am. M. Ass., 1896, xxvii, 628.

II

I was aware that we were not adhering sufficiently to the principles of asepsis in our operating-room technique, and that our results probably suffered as a consequence.

For some time I had insisted that street clothes were out of place in the operating room. All of my assistants were required to wear light-colored or white shirts, trousers, and shoes, and of course sterile gowns. This apparel, being of lighter weight, was much more comfortable in the over-heated operating room, and it had the appearance of fitness and cleanliness. The innovation was a matter of comment and of some good-natured ridicule, but it was promptly imitated.

III

Some of the larger hospitals were conducting training schools for nurses. Such schools were an obvious necessity, and the Illinois Training School supplied pupil nurses to Cook County and the Presbyterian Hospitals.

Since the earliest days of the Post-Graduate and Charity Hospitals, we had been conducting the Josephine Training School for Nurses. In line with our program of expansion, we rented a three-story apartment building opposite our new school, where comfortable quarters were provided for the nurses in training.

IV

At the urging of Dr. Fenton B. Turck, we introduced another innovation—a thoroughly equipped surgical research and experimental laboratory, which was located one block to the north of our school and hospital. Here our students performed many of the classical operations on animals, under the guidance of a faculty member.

Occasionally the serenity of our scientific activities was disturbed by a visit of protest from representatives of the Society for Prevention of Cruelty to Animals. As a sure means of converting them to our cause, we invited them to witness all of our procedures. No accusation of

cruelty was ever justified, for each animal was anesthetized before it was operated upon, and given painstaking after care in the perfectly equipped animal hospital that was a part of the laboratory building.

Now an experimental laboratory is a part of every medical school, and necessarily so. Through what other means can a student perfect himself in complicated operative procedures and become familiar with the difficulties he may encounter when he is called upon to operate on men, women, and little children?

V

Often I have observed actors and actresses fulfilling a long engagement, playing the same play, repeating the same words night after night, and I have wondered if it did not become deadly monotonous to do exactly the same thing six to eight or nine times each week. I have broached the question to some of them, but always there is the same reply: "No. The new audience every day and every evening is an inspiration. Sometimes we go to the theater tired from overwork or overplay, but when we respond to our cue and note the interest of our audience and hear the applause, we are spurred on to ever greater effort."

For thirty years, from four to six times each week, I conducted clinics. There was no financial return, because the patients were without means; and salaried clinical teachers in medicine were practically nonexistent in the Nineteenth Century.

A definite routine was followed in the conduct of our daily clinics, which were attended by a dozen or more practitioners. Our examining room contained a number of cubicles, in each of which we cared for about six patients in the course of a morning's instruction. A nurse in attendance placed each patient in a cubicle and prepared her for the routine examination. An interne recorded the patient's history.

Accompanied by several of the visiting practitioners, I examined the patients, one by one. Every patient in our clinics was carefully examined, for the teacher was under the constant surveillance of educated doctors by whom the findings were noted and verified in an independent examination.

Thus as we progressed from cubicle to cubicle, a dozen or more doctor-students were prepared to discuss every case with the teacher,

and aid in recommending the proper treatment. The practice was an inspiration to the teacher and also to the students, and distinctly advantageous to the patient. As it was expressed by Dr. William Williams Keen, the beloved dean of our medical profession who passed away on June 7, 1932, at the age of ninety-five and a half years: "Students are the best whip and spur I know. I always feel at the Jefferson Hospital as if I were on the run with a pack of lively dogs at my heels."

Two or three times each week we held operative clinics in our large amphitheaters, with as many as two hundred practitioners present as observers. These were veritable field days. From two p.m. until five or six, patient after patient was brought in, and each was subjected to the treatment or operation that had been prescribed on the basis of the preliminary diagnosis. Many of the spectators had aided in examining these patients. Was the professor right? Would the findings be substantiated? The operator, the assisting doctors, the two or three internes, and the nurses were under the closest scrutiny. Beginning with the applause that greeted the professor as he entered (then a customary formality) until the last stitch was tied in the last operation, everyone present was on the *qui vive* and thoroughly interested in each step of the procedure—and especially in the result.

Our daily routine never became monotonous or uninteresting. Every clinician has an appreciation of the intangible something that inspires the popular actor night after night, and that keeps him thrilled with his job.

Occasionally private patients protested the presence in the operating room of doctors whom I had invited. It was not difficult to convince them that no patient is better cared for than the one who is operated upon under the scrutiny of discriminating onlookers. A surgeon under such circumstances always does his very best. He doesn't "wool gather" because the many watchful eyes tend to keep him alert.

VI

In spite of my strenuous professional and administrative duties, there remained in my blood a deep interest in the quadrennial political conventions and presidential elections.

The controversy in regard to the unlimited coinage of silver, irrespective of international agreement, at a ratio of 16 to 1, came to a show-

down in both national conventions. The Democratic party, though radically divided on the question of monetary policy, definitely declared for free-silver coinage; the Republicans, though also somewhat divided on the question, by majority vote declared for the gold standard.

The Republican party had a staunch admiration for William McKinley, who had a splendid record. He had enlisted as a private at the outbreak of the Civil War, and was mustered out of service in the summer of 1865 as a Major—rank which was accorded to him "for gallant and meritorious services." He had been a leader in the House of Representatives for a number of years, and sponsored the McKinley Tariff Bill that was framed to overcome the economic depression that prevailed during the incumbency of President Cleveland.

Never were pre-convention days more tense, nor the people more definitely at variance in their views.

On June 16, the Republican convention in St. Louis nominated William McKinley for President on the first ballot and Arthur Sewall for Vice-President. McKinley's protective tariff plank was written into the platform, and also the definite declaration that the party was "opposed to the free coinage of silver," all of which was a foregone conclusion.

VII

The Democratic party had no favorite candidate when their convention convened during the week of July 7, in the old Coliseum at 63rd Street in Chicago. During the first year of President Cleveland's second term, in 1893, the country was plunged into a periodic panic, which in these days we call an "economic depression."

The Democrats had little along the old conventional lines on which to base claim for support. It would have been absurd to advocate "tariff for revenue only" when the Republican campaign cry charged that the existing panic was due to repeal of the McKinley tariff measure, and that their candidate was the "apostle of prosperity."

However, here was another opportunity to attend a national convention in Chicago. After much urging, Isabelle agreed to accompany me to a few of the preliminary sessions. She was not particularly interested in the conventional reports on organization and on platform, nor

in the flow of oratory that was indulged in in presenting the candidates. As this was prior to the use of amplifiers, most of what was said could not be heard, and she was unsympathetic to the little she did hear.

The real discussion of the various planks in the platform was scheduled for the third day, Thursday. As I left the house in the morning, I told Isabelle that I would meet her at eleven-thirty, at the usual rendezvous on 63rd Street She declared that she had had enough of the convention, and she didn't care to hear any more discussion of the ridiculous platform.

I urged her to go: "You never can tell when something of great interest and of lasting historical significance will occur at these conventions. Think of the thrill I had in 1880, when Garfield defeated General Grant." And I added, "Please come. I shall expect you."

She was there. The discussion during the first two hours was dreary, and the Madam urged that we go home. "We can't hear, and anyway it isn't interesting." William R. Cubbins, then a medical student, was with us, and he proposed to remain. As Isabelle and I were assembling our belongings, preparatory to abandoning the scene, the Chairman recognized a delegate from Nebraska, an ex-Congressman, and Editor of the Omaha *World-Herald*. He mounted the platform, stepped to its edge, raised his hand, and in a voice that could be heard distinctly in every part of the hall asked the departing audience please to be seated; that he would make them hear. There was something soothing and commanding about that magnetic voice.

Isabelle settled into her seat, and within three minutes the entire assembly, regardless of political preference or prejudice, was enthralled. The speaker was William Jennings Bryan, and he was delivering the famous speech which contained the passage: "You shall not press down upon the brow of labor this crown of thorns; you shall not crucify mankind upon a cross of gold."

As he finished, pandemonium broke forth. The orator was hoisted to the shoulders of his fellow delegates from Nebraska and carried from the platform and around the hall in the wake of the Nebraska standard. Delegation after delegation joined the procession. There was uproarious excitement among the audience. New York and Illinois delegations at first would not be stampeded, and clung to their standards. But the leaders of these delegations finally had to yield, and every state was in

the procession, paying its compliment to a new idol from Nebraska. The following day he was unanimously nominated for the presidency. A youngster had stampeded America—temporarily at least.

For several days the press of America lauded William Jennings Bryan as a national hero.

The new chapter, started by "The Commoner" as he was later called, stirred politics in America for more than thirty years, and roused political leaders as never before. [Bryanism has "bobbed up once more," for in January of 1933 a flood of silver-purchase and silver-coinage bills is pouring in upon our Congress.]

The commercial, financial, and industrial interests were arrayed against the common man, and every metropolis, every hamlet, every factory, and every farmyard within the precincts of the United States had its interest in the campaign.

The thoughts expressed in that "Cross of Gold" speech impressed themselves upon everyone, whether ally or antagonist, and influenced the progressive policies of the future. Many of the proposals were adopted in their entirety by the opposing party.

Both sides indulged in the usual round of processions, speeches, denunciations, and innuendos, and the campaign ended. The Democrats "folded their tents like the Arabs, and as silently stole away"—in defeat, as usual, to await another contest.

23

1897. A LANDMARK

I. Stock Taking. II. Education of the Wisconsin Boy. III. New Research Problems. IV. The Master of the Hounds. V. Experiment No. 13—Bruce. VI. Christian Fenger. VII. Near Tragedy.

I

ANOTHER decade was being counted off. It was one of the stations that I had dreaded to approach, for at this mark, according to traditional dictates, one passed from youth into middle life. It was a time in life's journey that brought sadness. True, I felt no weakening in bone, muscle, or brain, nor in ambition, enterprise, ability, or pleasure in work; but there remained the supposition that middle age was upon one when he crossed that imaginary line. I had told off several decades before, and a few since, and they were all unheeded and none of them caused me to grow sad.

It was, however, a time for taking stock; a time to think over the past and to ask, "Did I make the most of it?" Certainly I had worked; and my activities were organized to the best advantage from the standpoint of my family, of my profession, and of the building of character. If in my earlier years I had been disciplined along the lines of a definite educational routine, my work would probably have been less difficult and more effective.

In my critical review, I realized that in recent years I had been under the sympathetic guidance of a brilliant, intellectual, and highly educated woman, whom I had taken "for better or for worse" eleven short years before.

II

With her blessed influence, she had established a rule that "after six o'clock at night all talk of shop must stop," and that our spare time

should be devoted to reading good literature, hearing good music, and associating with people of serious character and with a cultural tendency.

It was difficult at times to eliminate professional talk, because we always had at our hospitable table and as after-dinner associates a group of enterprising "kid doctors" or medical students. But even they enjoyed the kind of things for which we stood. Ours was "home" to all of them and to any of their friends whom they desired to bring in. Our "bread and board" was elastic, and there were never so many guests that an additional one was unwelcome.

Long before the secure knot had been tied between us, Isabelle and I stole away on summer evenings to the old Exposition Building and listened to the symphony concerts that were directed by Theodore Thomas. From the beginning I was intrigued by classical music, to which I was led at first, but which later I "drank in with avidity." Afterwards we became yearly subscribers—no matter how depleted the treasury—to the symphony concerts that were given by Theodore Thomas during the winter season in the Auditorium, and later in the new Orchestra Hall; and we have continued our allegiance to the Chicago Symphony Orchestra under Frederick Stock until the present time (1933).

From the beginning of opera in Chicago, we have been supporters and regular attendants. There is nothing more inspiring to either of us than good music. In fact, all music is acceptable to us if it is well interpreted.

Thus, according to our rule of life, the time after six o'clock in the evening was devoted to our friends, among whom we counted many wonderful men and women. Society never intrigued us, or, more properly perhaps, I should say we never captured society—that is fashionable society. If a professional man does his own thinking and conscientiously carries on his own professional work, he cannot serve two masters—his profession and society—without slighting one or the other.

Of course, at least once a week, on an average, the six o'clock rule had to yield, for attendance upon meetings of medical societies, local, sectional, or national, was imperative if I desired to keep abreast of the times in medicine and surgery.

Even before Isabelle and I were married, we formed the habit of reading aloud from books and magazine articles of the highest type.

It became our most delightful recreation, and incidentally it was the liberal education that I much needed and that I was happy to acquire. From eight until eleven o'clock, on an average of four evenings a week, if we were undisturbed, we read one or two substantial books.

For one whole year Guizot was our standby. His "History of the Civilization in Europe" (3 volumes) and "History of the Civilization in France" (4 volumes) are the most fascinating series ever written. I remember one night after we had returned from the opera we took down a volume of Guizot and read until three o'clock the following morning. The ten volumes of "Abraham Lincoln: A History" by Nicolay and Hay, and "Napoleon's Invasion of Russia" were other *pièces de résistance* that we devoured with enthusiasm.

"John Lothrop Motley and His Family; Further Letters and Records" was fascinating; also his "Rise of the Dutch Republic," "United Netherlands," and "Causes of the Civil War in America," among the first books based on serious research into archives then untouched.

Washington Irving's "Life of George Washington" (5 volumes), and his "Conquest of Granada"; Prescott's "Conquest of Peru" and "Conquest of Mexico"; historical books of such literary charm and romance that they must always be a part of every reader's library. And the pleasure that was ours as we read "The Life of Lord Tennyson"; "The Life and Letters of Robert Browning"; "The Life and Letters of Charles Darwin," and his "Origin of Species." We were stimulated to read the poems of Tennyson, and we even learned to enjoy the poems of Browning!

The "Life of Dante Gabriel Rossetti" was fascinating and led us into a study of Dante's "Inferno." Ralph Waldo Emerson's "Complete Works" and "Essays" have always been my literary bible. My old volumes are falling to pieces from wear, and their margins are marked and remarked. What an inspiration he has always been to me!

Isabelle early taught me to admire Thomas Carlyle (the old, intriguing devil!) and we read everything he wrote. It was like going to a Sullivan-Corbett prize fight to read the old literary hero's essays and histories. We even waded through his "French Revolution," which bristled on every page. We read his life and the letters of his devoted wife, a tragedy of heroic bliss and hero worship.

Our own authors, too, were on our regular list: Oliver Wendell

Holmes, lawyer, philosopher, poet, doctor—the "Autocrat of the Breakfast Table"; Nathaniel Hawthorne; Margaret Fuller's Life; Henry David Thoreau, the wild philosopher and naturalist, who was "as independent as the nestbuilding bird."

These are but a few of the hundreds of books that we read and reread. Of course, we always perused the current novels, which included such authors as Charles Dickens, George Eliot, Frank Spearman, and many other writers of a later day.

It was the "Education of the Wisconsin Boy" under a most discriminating tutor. The leisure of those hours, the changing trend of thought, and the knowledge gained compelled us to a broader vision, and to great enjoyment of life.

III

In the course of my practice I had examined many patients who required some form of treatment or surgical intervention to preserve or restore kidney function. In some cases the ureters (the tubes which convey the secretion from the kidneys to the bladder) had been destroyed by invading malignant disease of one of the organs; in others the tubes were necessarily sacrificed in some lifesaving operation, or they were injured through an external accident. Added to these was the distressing condition of congenital exstrophy of the urinary bladder, which, though uncommon, proved a tragedy in each instance, since the urinary secretion was in these cases discharged onto the surface of the abdomen.

A young boy, aged thirteen, who was a victim of this condition, came to me dressed in feminine garb which enabled him better to conceal his deformity. After an examination of this unfortunate individual, I reasoned that if the ureters could be transplanted into the intestine, or the lower bowel, that a function more nearly normal could be established, and I determined to undertake some experimental work.

I surveyed the literature to preclude possibility of duplicating the work of other investigators. Considerable experimental work had been conducted along this line, and some clinical reports had been presented by surgeons who were distressed because they had accidentally injured or severed the ureters. But the literature revealed only one extensive research effort on the particular subject, and that was by Karl Maydl,

of Prague. Apparently, however, clinical operators were not sufficiently encouraged by the results to chance the operation on their human patients.

After several months of reading and rereading the existing literature, and carefully observing all of the pelvic organs in every patient upon whom I performed an abdominal operation, I decided to make an exhaustive study of the operative technique in our research laboratory, in order to prove or disprove the feasibility of transplanting the ureters into the intestines.

The long series of experiments were performed on animals that were obtained, as a rule, from the municipal dog pound, stray mongrels who were already doomed to an untimely death.

Associated with me in this research was William R. Cubbins, an undergraduate interne of the Charity Hospital, who graduated from the Northwestern University Medical School in 1900, served his interneship in the Cook County Hospital, and who is now a clinical professor of surgery in his Alma Mater, chief of the surgical staff of Cook County Hospital, and a staff member of the Post-Graduate and Wesley Memorial Hospitals of Chicago.

It was a new experiment. My eager assistant was keen for the job, for even then as now the word "Research," regardless of its usefulness or futility, was a term to conjure with.

IV

Our "Master of the Hounds," Adam, the janitor of the laboratory, soon became an enthusiastic coöperator. It was up to him to provide the dogs, to act as operating-room assistant, to care for the convalescent patients in our little animal hospital, and to keep them alive, and frequently to act as chief mourner and grave digger at the occasional obsequies.

Adam, like his well-known ancestor mentioned in the "Book of Genesis," had a faculty for taming animals. Even the most ferocious canine became meek, and succumbed within a few minutes to Adam's hypnotic and persuasive powers.

Every experimental abdominal operation was attended with all precautions that were practiced in up-to-date hospitals. The operating

table was provided with an angular wooden trough, into which the animal was gently but securely tied, back down, by Adam, the "Master of the Hounds," before the brave experimenters ventured to enter the presence. The subdued animal, who adored his master, calmly submitted to this unusual ceremony. "All right, Dock," came from Adam, as he proceeded to anesthetize the patient with the aid of an improvised ether cone.

It was difficult in our early experiments to identify and segregate the ureters; and then we had to perfect the delicate technique of transplanting the severed ends of the tubes into the large intestine. After several months, we were able to prove our theory that the bowel was an acceptable reservoir for the urine, for our animals, though they lived only a few days after the operation, did function comfortably during that time.

Post mortems revealed that death was not due to leakage about the site of our transplant. The symptoms pointed to some acute infection, probably due to imperfected antiseptic technique. This recalled to my mind the distressing deaths among our patients in the early eighties, when we were "pioneering" in antisepsis and asepsis. Perhaps we had been misled by the erroneous belief that animals were less susceptible to operative infections than human beings. Our improved technique brought improved results—our dogs survived for a longer period after operation.

Meanwhile, experiments were being observed by our confrères, among them Christian Fenger, the great surgical pathologist. He predicted failure, and immediately the conventionalists started a "whispering gallery" of ridicule. Reuben Peterson, who had watched many of our operations, suddenly disappeared from our midst, and soon we heard of his independent research in the experimental laboratory of the University of Chicago. He had every right to abandon us, for we had failed in each of twelve attempts!

V

We must be able to report success before some new experimenter antedated our efforts.

No. 13 was a large shepherd dog, named Bruce, who, presumably,



CHRISTIAN FENGER

had come from a higher social sphere than our other animals. We suspected that he had been purloined by the "Master of the Hounds" from some place east of State Street.

Bruce was carefully prepared under the personal supervision of Cubbins and myself. The operation was most satisfactory, and we predicted that this animal would not fail us. We transferred the patient to his clean little bed, where we visited him every few hours; and he wagged his tail in welcome each time we put in our appearance.

After three days, when he was convalescing, we gave him a comfortable bed of straw in the corner. He performed his natural chores like a real dog. He had no fever, and his pulse was normal. In ten days he was up and around, after which he was exercised each day by the "Master of the Hounds." Within a month he became the most famous dog in Chicago. The ridicule ceased, and the "doubting Thomases" came to verify our claims.

VI

Christian Fenger asked the privilege of paying his respects to Bruce and several convalescing companions whom we planned to exhibit before the surgical section of the American Medical Association at a forthcoming meeting in Denver.

We told the great surgeon the story: We had severed the ureters from the bladder and transplanted them into the large intestine; hence the secretion from the kidneys was emptying into the lower bowel. He was nearly crazy with excitement. He walked about, removed his coat, and discussed the subject between coughs, hesitations, and expectorations. "If this is true," he said, "think what it will mean! Think how it will revolutionize the surgery of the pelvis, and of the bladder. Why doesn't the animal demonstrate? His improvised bladder must be bigger than his normal one."

Accommodatingly, Bruce, well-trained dog that he was, picked out a sloppy place in the corner, and true to dog nature, politely lifted one of his hind legs and performed abundantly. Nothing further was needed to convince this greatest doubter of them all. He emitted some of his customary expletives, congratulated the operators, and fairly hugged the dignified animal, who seemed to say, "That's nothing. Why I can do that any time."

VII

A few days later I received an urgent telephone call from the laboratory.

"Yes, Adam, what is it?"

"The dog is gone. He broke a window. Can't find him anywhere."

"What dog, Adam?"

"Bruce, of course. Oh, Sir, I am leaving you."

"You can't leave, Adam, until you find that animal. Advertise, notify the police, offer a reward. I will be right down."

Investigation revealed that the dog could have escaped only through an open door. To be sure, the basement window had been broken, but the window was ten feet from the floor.

The following day an excited Adam again called me by telephone. He had found the dog. As the story of the find was gradually unfolded: Adam was walking down Wabash Avenue, then one of Chicago's fashionable residence streets, when he spied Bruce harnessed to a wagon in which two children were riding. He called to the dog, who, recognizing his master's voice, disregarded all social amenities, rushed to Adam, jumped upon him, licked his face, and whined for joy. Adam chastized the children for stealing his dog, unbuckled the harness, and rapidly took the delighted animal back to the laboratory.

The animal loved this real master, in spite of hardships of operation and hero worship by internationally known surgeons; he preferred his bed of straw in a small research laboratory to a palatial home in the exclusive residence district of a great metropolis.

Today great surgeons all over the world are saving the lives of many men, women, and children through the operation that we were able to perfect with the aid of Bruce.

24

1898. SPANISH–AMERICAN WAR

I. The Sinking of the "Maine." II. War Is on in Cuba. III. We Celebrate the Victory. IV. The Philippine Islands. V. The Medical Department. VI. Midlothian Country Club. VII. Golf. VIII. Military Occupation of Cuba. IX. Yellow Fever—Walter Reed Board. X. William Crawford Gorgas. XI. Eradication of Yellow Fever. XII. Malaria.

I

On FEBRUARY 15, 1898, an explosion destroyed the U. S. battleship "Maine" in Havana harbor. Two hundred sixty-six lives were lost.

Cuba had threatened to secede from the domination of Spain and establish her independence. The United States, with an envious eye on this attractive island, snugly tucked away only one hundred miles from the Florida shore, had begun to prepare for war as early as January, and by a joint resolution in Congress declared on April 20 that America desired Spain to relinquish authority in Cuba, "in the name of humanity, in the name of civilization, in behalf of endangered American interests. . . ." But in spite of our pronouncements of neutrality, protection, and disinterestedness, Spain, strangely enough, was suspicious of our sincerity.

The political forces of the United States were stirred to their depths by the "Maine" disaster. Excited spirits became militant, and the history of two great countries tells diametrically opposing stories of the cause of the war.

The navy of the United States was superior, but it was very much scattered—in the north Atlantic; in Chinese waters; and in the Pacific Ocean, which meant an eight-thousand-mile trip around Cape Horn to reach Cuban waters.

The Atlantic coast states were panic stricken, for any day the "powerful" fleet of Spain might appear and bombard New York, Old Point Comfort, Charleston, Savannah, St. Augustine, and even New Orleans.

II

Our battleships were ordered to proceed to the base of trouble; our regular army was expanded; Congress voted $50,000,000 "for the national defense"; the National Guard was concentrated in each state and hastily equipped; Theodore Roosevelt organized the 1st Volunteer Cavalry, known as the "Rough Riders"; and peaceful William Jennings Bryan became militant and accepted a colonelcy in the 3rd Nebraska Volunteers.

Richmond P. Hobson, a naval constructor of the U.S. fleet, suggested sinking the collier "Merrimac" in the narrow entrance channel, thus bottling up the Spanish fleet and rendering it helpless. He was given authority, and bravely attempted to carry out his dangerous task in the early morning of June 3. However, the tide carried the ship into the broader passage, and he did not succeed in blocking the channel. But he did succeed in making a national hero of an American sailor. He thrilled the Nation, and we realized that red blood still coursed in the veins of our boys and that they had adventure in their souls.

On the morning of the third of July, Spain made a break for freedom. But Commodore W. S. Schley, the senior officer in charge while the commander-in-chief, Admiral Sampson (unlucky fellow), was five miles away conferring with General Shafter at Siboney, sank the pride of the Spanish navy one by one, or grounded them on the rocky coast off Santiago. Within three hours he raised the flag of victory over a completely vanquished enemy. Admiral Sampson heard the firing, and speeded back hurriedly, in time to witness the triumph of his victorious subordinate.

III

Isabelle and I were celebrating our Nation's birthday in Grand Rapids, Michigan, with Mr. and Mrs. Clay Hollister, cousins of Isabelle's. We were lunching at a near-by country club when another

cousin, McGeorge Bundy, appeared from the city and announced the great victory of our navy and the destruction of the Spanish fleet.

The combined celebration of our national holiday and this thrilling victory stirred our militant spirits far into the night.

Our "glorious war" with Spain was practically at an end.

IV

Simultaneously, of course, the United States also had a watchful eye on the Philippine Islands, which, likewise, had declared for independence and separation from Spain. On the first of May, an American fleet, under Commodore George Dewey, destroyed the Spanish fleet that was stationed in Manila Bay. After the Cuban victory, the United States army and navy proceeded to Manila; and the Spaniards surrendered the Philippines on August 14, 1898.

Military operations in Porto Rico had ceased two days before, on August 12, when the Spaniards signed the peace protocol.

V

During the war, our medical department was without support, and literally frowned upon by the line officers. Had the recommendations of the medical officers been heeded, health conditions would have been greatly improved, and thousands of lives would have been spared.

Under the nominal leadership of Nicholas Senn, who served throughout the war as chief surgeon in the navy, with the rank of lieutenant-colonel, the medical officers demonstrated that they could not function efficiently without proper rank, and the authority that attends it. In every subsequent war (but one) that has been waged by a civilized country, scientific medicine has been accorded the recognition that is its due, and has had the support of the war and navy departments and their administrators.

VI

In 1898 I was invited to become a charter member of the Midlothian Country Club that was to be located south of Chicago, near Blue Island. The project had the backing of a group of substantial business and professional men of the South Side, headed by Harlow Higgin-

botham, George R. Thorne, William O. Goodman, John G. Shedd, Louis and Edward Swift, John Barton Payne, and Montgomery Ward.

I promptly accepted the invitation as the plans gave promise of an attractive and substantial organization. Isabelle and I became enthusiastic golfers. We lived in the attractive club house during the summer months of the succeeding fifteen years, and many of our most valued friendships were developed there.

The club became a rendezvous for several hundred men who were busy with important daily pursuits, and who found time each week-end to devote to wholesome exercise and sport. Many of the members and their families lived in the capacious club house or in near-by cottages during six to seven months of each year.

VII

Golf courses were established in response to a yearning among busy people who were distraught with the cares of business, and weary of society. More and more they were turning their attention from nighttime pleasures to daytime sports.

Golf was a powerful lever in emancipating women from the Victorian conventions, for it gave them the freedom of the out-of-doors, and necessitated a change in the insanitary mode of dress. Golf sent the overworked, overfed, and under-exercised business and professional men of our metropolitan cities into the fields.

In this decade, when the golf course was appropriated from Scotland by the whole world as the playground for old and young, a change occurred in the lives of men and women of civilization.

The idle learned the charm of physical effort, and the blasé, that competition freed the soul and developed the mind and the body. Ambitious men and women found that change of work was restful, and that it tended to multiply their accomplishments. Woman's outlook was broadened, and her mind was freed from domestic and social worries. It was the passing of the old maid, of the matron's retirement, and of grandma's cap. All were liberated and privileged to go their own way. Their minds and bodies were released from a humdrum existence, and they were able to compete successfully with men.

In drawing a picture of the advent of golf, I am attempting only to record my own impressions as I recall them in retrospect. The great

experiment has transformed the world, and preserved to the urban population the joyful and healthful attributes of the open country, its surroundings and activities.

Many of the leaders in our civilization first saw the light of day in a country or farmland home; and as a counterbalance to their strenuous labors and their confinement, golf took them back to the freedom of Nature.

VIII

Cuba was freed from the domination of Spain through the intervention of the United States, an interested ally, who provided for temporary occupation while the new nation was establishing herself as an independent Republic. For one year, Major General John R. Brooke was the military governor, and for the remaining three years, Major General Leonard Wood. The latter, with his genius for organization and administration, aided Cuba greatly in putting her house into order.

Our military advent in the tropics had given us a glimpse of a promised land with a winterless clime, a land of great productivity and beauty. The prevalence of tropical diseases—yellow fever, malaria, typhoid, and allied scourges were, however, a threatening menace to the non-immune white man.

Surgeon General George M. Sternberg, of the United States Army, conceived the idea, now that the war was ended and we were aiding our neighbor to organize, that it was the duty of the one corps of the U. S. Army that was interested in the preservation of life to discover the cause of yellow fever, and if possible to eradicate it from the tropical world.

IX

At the urging of Surgeon General Sternberg, himself a leading bacteriologist and a recognized authority on yellow fever, the secretary of war, in 1900, appointed a board, consisting of Walter Reed, Jesse W. Lazear, James Carroll, and Aristedes Agramonte, all army medical officers, to visit Cuba and investigate the entire subject of yellow fever. The Sanitary Department of Havana also had a commission of medical men, comprising Colonel William Crawford Gorgas, and Doctors Carlos Finlay, Antonio Albertini, and Juan Guiteras,

to whom all cases of yellow fever were referred for diagnosis, and the closest coöperation existed between the two groups. Walter Reed was the guiding spirit.

The comprehensive investigation of yellow fever was completed early in 1901, and the epoch-making report, so complete yet so simple, reads like a romance.

X

Colonel Gorgas, whom General Wood had appointed chief sanitary inspector of Havana, for many years had been interested in the control of yellow fever, during the epidemics that prevailed in the southern and eastern portions of the United States in the eighties and nineties. Seemingly, fate had decreed that the scourge should play a major rôle in the life of Gorgas, for it was as the result of one of the epidemics that Amelia Gayle, his mother, met Josiah Gorgas whom she married; and during another epidemic that he developed the beautiful friendship with Marie Cook Doughty, who was stricken with yellow fever. He married her within a few years. He himself contracted the disease in early life and thus developed an immunity.

Deeply interested in the work of the Walter Reed Board, he immediately recognized the trustworthiness of its findings, and looked upon the discovery with the eye of an appraiser. He was impressed not only with the scientific achievement, but his practical mind was immediately busied to translate it into a workable formula that would eliminate yellow fever from pest-ridden Havana. There was no circumlocution; he acted directly, used the means at hand, and enlisted the aid of the people about him.

Yellow fever was caused by a germ that was transmitted to man by the bite of a female Stegomyia mosquito. This mosquito must bite a yellow fever patient during the first three days of the onset of the disease. Following the period of from twelve to twenty days after biting the yellow fever patient, the mosquito was able to transmit the disease to a non-immune individual, after which there was an incubation period of from three to six days before man began to show symptoms of the disease. These were the theories furnished by the scientists, which Gorgas pondered over and which made him realize that to him had come the opportunity to control or eradicate yellow fever.

He translated his vision into a plan, which he took to his chief, Governor General Leonard Wood, who was also a physician. Wood had watched the experiments of the Reed Board, believed in its findings, and was impelled by the enthusiasm of Gorgas to support the suggested plan and give the young health officer full authority to proceed.

XI

With the facts before him, and authority granted, Gorgas plainly saw that yellow fever could be eradicated if no victim of the disease were bitten by a Stegomyia mosquito during the first three days. It was obvious also that yellow fever could not develop if a female Stegomyia mosquito that had bitten a yellow fever patient were to bite a non-immune individual within the period of from twelve to twenty days afterward. Therefore, if a patient having yellow fever were isolated from mosquitoes, there could be no transmission of the disease from that patient.

These facts formed the basis of his labors. He foresaw that he must eliminate all traditional, irrelevant notions that the disease was caused by filth, miasma, night air, and contagion through personal contact; and that he must concentrate on the new theories. First, then, he must, so far as possible, destroy the Stegomyia mosquito; second, he must screen in all victims of yellow fever, and also all non-immune individuals so that the Stegomyia mosquito could reach none of them. How simple!

But he had the traditions of ages to combat, and he had to deal with thousands of people of a great city, few of whom knew anything of science, and to whom it was difficult to explain his problem. Then, too, there was the medical profession itself, which is sometimes slow to adopt new theories which are established by scientists. He had to introduce a means of destroying the mosquito in the face of every condition that was most favorable to its development; he had to supervise the care of sick individuals; and he had to convince a government that past methods, in the pursuit of which it had spent vast sums of money, were all wrong, and that it must appropriate sufficient funds to make possible a trial of the new theory.

But his enthusiasm, his staunch belief in his proposed methods, his immediate initiative, and his great industry overcame all obstacles, and

between the time of the announcement of the plan on February 1, 1901, and September 15, 1901, a period of less than eight months, he eradicated yellow fever from Havana, where it had existed continuously for over one hundred and fifty years.

XII

As Gorgas was succeeding in combating yellow fever, the same methods, his practical mind argued, could be carried on simultaneously to circumvent the activity of the Anopheles mosquito that Ross and his co-workers had identified (1897) as the infecting agent in malaria. Without hesitating for red-tape, he tackled this job also. Since 1901, after the systematic destruction of mosquitoes inaugurated by Gorgas, malaria steadily decreased until in 1912 there were only four deaths, or the eradication of malaria from Havana, as these four deaths could be attributed to patients brought from infected districts outside of the city.

Though Gorgas' work in controlling malaria did not attract as great attention as his more dramatic accomplishment of abolishing the deadly yellow fever, it had nevertheless a profound influence on the future of medicine in every country within the tropical or semi-tropical zones, and the Gorgas formula has had worldwide application. Havana and other Cuban cities, which had been danger zones for non-immune whites, were transformed by Gorgas into wholesome and healthful communities, and they have become the winter playground for the inhabitants of the world.

This narrative will have occasion to refer to other epoch-making accomplishments of the young Colonel, William Crawford Gorgas.

25

1899–1900. THE "TURN OF A CENTURY"

I. Scientific Research. II. Two Decades—An Inventory. III. Tuberculosis. IV. Diphtheria. V. Typhoid. VI. X-Rays and Radium. VII. Appendicitis. VIII. Other Discoveries in the Field of Medicine. IX. National Political Conventions. X. Church Affiliations. XI. Ringing Down the Curtain.

I

Two years of experimental effort, through which I developed the technique that made possible the transplantation of the ureters into the large intestine, revealed to me something of the satisfaction that was to be gained through the pursuit of purely scientific research. Obviously, I was not by training a scientist, for to my mind the application of scientific facts to a *practical accomplishment* was far more intriguing than the industrious and exclusive pursuit of a "pure science" investigation.

In opening an address before the Philadelphia Obstetrical Society, on April 5, 1900,* I said:

"The new operation which I here propose—removal of the bladder, preliminary to or coincidental with hysterectomy for cancer, in order to extend the legitimate possibilities of surgery for malignant disease of the pelvis, is a subject which I have carefully considered, theoretically, experimentally, and practically; and therefore, while not underestimating the mechanical and pathological problems involved in the procedure, and the desperateness and otherwise hopelessness of the conditions for which the operation is devised, I am urged to offer it to the profession. . . ."

*Preliminary reports: "Experimental Implantation of Ureters in the Bowels," Am. Gynec. & Obst. J., 1899, xiv, 307-310. "Implantation of Ureters in Rectum: A Method Having for Its Object the Making of Subsequent Infection of the Ureters and Kidneys Impossible," J. Am. M. Ass., 1899, xxxii, 159-161. Post-mortem specimens obtained from experimental operations on animals exhibited before Chicago Gynecological Society, March 21, 1899.

The paper dwelt upon details of research and my theory of the operative necessity, and contained a tabulated bibliography of the literature pertaining to this and allied subjects.

Several men of eminence, among them Joseph Price, E. E. Montgomery, and John M. Baldy, old guards of the society, had been selected to discuss my presentation. They had a difficult time, because they were practical men rather than romanticists, and they had not had any experience with the formidable problem. Many questions were asked, and later in the evening, at the reception given in my honor at the home of Dr. J. Chalmers Da Costa, President of the society, I endeavored to justify the perplexing enigma that I had brought from my home in the Mississippi Valley.

II

The turn of the Century witnessed the twentieth anniversary of my advent into the practice of medicine—a busy and adventurous two decades. Again I took inventory of professional and remunerative accomplishments, of the strenuous activities that I had pursued enthusiastically, of my family life, and of my moderate social connections, all of which had accorded me great satisfaction. My professional writings and teachings had been well received, and I had done my full share (and perhaps sacrificed too much valuable time) in the organization of graduate teaching.

But I was dissatisfied with the results of my efforts. Revolutionary advances were rapidly transforming the practice of medicine and surgery from an art to an exact science. Scientific methods pointed to the importance of careful diagnosis, and the value of preventive medicine as an adjunct to curative medicine. Drugs were being deposed from their empirical position, and dividing honors with physical therapy, fresh air, and wholesome recreation and exercise.

III

In the early eighties, knowledge of the devastating disease—tuberculosis—was very meager. The discovery of the tubercle bacillus by Koch (1882) stimulated research by clinical doctors the world over. Soon came the pronouncement that the disease was transmissible from person to person, and that pure air, dry atmosphere, sunshine, and

sleep in God's great out-of-doors were discouraging to the development of the bacilli which caused the disease. Open-air sanitaria were established in regions where climatic conditions were favorable, and many cures were effected in cases of advanced tuberculosis. Home treatment, with outdoor sleeping porches pressed into service, accomplished the same results to a lesser degree.

In 1890, the death rate from tuberculosis in a chosen area of the United States was 245.4 per hundred thousand inhabitants. By 1900, the death rate in the same area had decreased to 190.5 per hundred thousand. As conditions of life were improved among all classes of people, and as popular knowledge concerning the nature and communicability of the disease was disseminated to the public, the death rate steadily declined. And in all of this the National Tuberculosis Association, since its organization in 1904, has played the major rôle. (In 1929, the mortality from tuberculosis in the registration area of the United States was 76 per hundred thousand.)

IV

Diphtheria is endemic in all European and American countries. It is an acute infectious parasitic disease to which children are far more susceptible than adults. In 1880, the case mortality in many communities ranged from 50 to 65 per cent. The cause of the disease was unknown, and all treatment seemed to be ineffective.

Klebs and Loeffler (1883) discovered and isolated the micro-organism which causes diphtheria, and von Behring (1890-1893) introduced diphtheria antitoxin with a result that was instantaneous and reliable. It is one of the important contributions to practical medicine.

Schick's reaction to determine the susceptibility to diphtheria antitoxin was introduced in 1910-1911.

The present case mortality from diphtheria—about eight per cent—is still unnecessarily high, because of irrational opposition in some communities to any form of medical treatment, encouraged by the preachments of uninformed or uneducated cultists. As a last resort, the only known effective treatment may be sought, but often when it is too late, and the innocent victim must suffer the consequences. The withholding of antitoxin in a case of diphtheria is an inexcusable and criminal tragedy.

V

An organism—typhoid bacillus—was discovered by Eberth (1880) to be the cause of typhoid fever, a specific communicable disease, introduced into the body through contaminated food and drinking water.

Prophylactic vaccination against typhoid with killed bacilli was undertaken by A. E. Wright, at the Army Medical School, Netley, England, in 1896.

Typhoid fever is more or less endemic all over the world, and epidemic outbreaks always threaten. The mortality from this disease was most disastrous during the Spanish-American War. Surgeon General Sternberg, of the U. S. Army, said: ". . . The total number of deaths reported in our enlarged army, including regulars and volunteers, from May 1, 1898, to April 30, 1899, is 6,406. Of these 5,438 died of disease. . . ." [Principally typhoid fever.]

In the Anglo-Boer War, 1899 to 1902, some four hundred thousand doses of anti-typhoid vaccine were administered under Mr. Wright, whose reports showed as a result a greatly diminished incidence of the disease, and a striking diminution of case mortality.

The Japanese army in 1908, and the Japanese navy in 1914, demonstrated on a broad scale the beneficial results of vaccination against typhoid.

During the World War, 1914-1918, every man in all of the armies involved was vaccinated against typhoid fever. In the U. S. Army, of some four million men there were only 215 deaths from typhoid fever.

VI

Wilhelm Konrad Roentgen discovered x-rays in 1895. These rays play an important rôle in medical work of today. They are a most reliable aid in diagnosis, and of value in the treatment of skin and other diseases, and in certain forms of malignant disease.

In 1898, Pierre and Marie Curie discovered radium, a metallic chemical element (so named on account of the intensity of the radioactive emanations which it yielded).

Three years later, Professor Becquerel, of Paris, unwarily carried a tube of radium in his waistcoat pocket and suffered a severe skin burn.

Only then did the action of radium on human tissues, and its value as a therapeutic agent, become known.

The establishment of the great science of radiology helped to round out the scientific accomplishments in medicine in the last two decades of the Nineteenth Century.

VII

During my early years in the practice of medicine, acute appendicitis was confusedly recorded as a form of incurable peritonitis. In 1886, Fitz conclusively demonstrated the pathology of perforating inflammation of the vermiform appendix, and in 1889, John B. Murphy, of Chicago, and Charles McBurney, of Roxbury, Massachusetts, added greatly to knowledge of a disease to which so many people were subject. This added another important chapter to the history of medicine.

VIII

Among other discoveries in the field of medicine during those eventful years should be mentioned:

1880—Laveran: Malaria plasmodium
Pasteur introduced present era of immunity by his work on chicken cholera
1884—Nicolaier: Tetanus
Koch: Cholera spirillum
1887—Bruce: b. of Malta fever
Weichselbaum: Meningococcus (organism of epidemic meningitis)
1892—Pfeiffer: Influenza bacillus
Welch: b. aerogenes capsulatus (Welch's gas bacillus)
1894—Kitasato: } Plague bacillus
Yersin: }
1897—Shiga: Dysentery bacillus
Ross proved that malaria is transmitted by the mosquito
1899—Reed, et al., proved that yellow fever is transmitted by the mosquito.

And of course gynecological practice had been revolutionized. During 1880-1890, the death rate from abdominal and pelvic surgery was 40 per cent. With the advent of scientific diagnostic facilities, amplified practical knowledge of asepsis and antisepsis, and improved technique, the rate declined to from 1 to 5 per cent by 1900.

IX

The national political conventions in 1900 were of mere perfunctory interest. The careful stacking of the cards in favor of the political heroes who had been nominated four years before, foretold that Bryan would be nominated in Kansas City, and McKinley, who had defeated him at the election in 1896, would be nominated in Philadelphia.

At the November election President McKinley was again victorious. He served only six months of his second term, however, for he was the target of an anarchist's bullet while he was attending the Pan-American Exposition in Buffalo, New York, on September 5, 1901, and succumbed nine days later.

On September 14, Vice-President Theodore Roosevelt assumed the presidency. His was an administration of courage and of action, for he was a man of great physical and mental vigor, and politics was his career.

X

Plymouth Congregational Church was a stately edifice on Michigan Avenue near 26th Street. The large congregation was made up of prominent residents of the South Side, among them Philip D. Armour, Sr., the packer, who was not only a regular attendant but a generous contributor.

With its interesting audience of well-groomed people, its famous organist and quartet, a plausible and eloquent pastor, and plenty of warmth and light, it was a comfortable and satisfactory church in which to spend several hours twice on each Sunday. The atmosphere was especially cheering to the non-resident students of Northwestern University Medical School, who were cordially invited and welcomed by Dr. John H. Hollister, the professor of clinical medicine.

My attendance at this church was begun in the early days of my practice, and James Chapman, Charles Nicola, and I had induced three of the daughters of the church to join us "for better or for worse." The knots were securely and effectively tied by the Rev. Dr. Henry Martyn Scudder.

Then for thirty years it was Isabelle's and my church, and our pew adjoined the Hollisters'.

Dr. Frank W. Gunsaulus became our pastor in 1887. Under the guidance of that peerless orator and inspirer of good deeds, Plymouth flourished as never before—or since. "Standing room only" was the rule of attendance during Dr. Gunsaulus' régime. Not only was he our pastor, but with an encompassing love for humanity he became our lifelong friend.

This brilliant man suffered a prolonged breakdown as the result of overwork, and in 1899 there came to us a young genius from Maine, named Artemus Jean Haynes. He was a fascinating boy twenty-five years of age, six feet two inches in height, lank and lean, with a large head, an obstreperous shock of long dark hair, and big dreamy eyes. He had received his theological training at Harvard, and was sent to us "on trial." Two-thirds of the congregation were fascinated by him and the other one-third were shocked beyond endurance. His God was of the modern vintage. He depicted Him free of conventional vocabulary, and not entirely along the lines of orthodox thinking.

On his first Sunday in our midst, Dr. Haynes took his dinner at the Hollisters'. We were all charmed with his personality. Forthwith he attached himself to the Martins and he practically lived with us until his charming young wife and two babies arrived from Cape Cod to make him a home.

He was an eloquent and convincing interpreter of modern religious thought. The conventional one-third attempted to follow him, but by degrees they quietly withdrew and left his admirers to make the most of it. Eventually they too began to drop off, and criticism and discussion were rife.

This fearless, outspoken man was an inspiration to the younger members of this old-time church, but the younger element were not financially able to maintain the church as had been the custom when it was supported by the orthodox members of maturer judgment.

This unexpected turn of affairs rankled in the soul of our hero, with his highly temperamental disposition and his frail body. An inevitable breakdown caused him to resign in 1901.

After a two-year rest, Dr. Haynes was called to the United Congregational Church, on the campus of Yale University, New Haven. His congregation was rapidly built up among the progressive instructors at Yale and their advanced students. In my experience, the only

parallel I have found for a church row among Christian believers is a difference of opinion on a medical subject among highly intellectual practitioners of scientific medicine.

For many years I served as a Trustee of Plymouth Church, under Dr. Haynes, and his successor, Joseph Anthony Milburn, who was a religious exponent of a more conservative type. For several years I was chairman of the Board.

During recent years Isabelle and I have been members of the Fourth Presbyterian Church, under the pastorate of Dr. John Timothy Stone and Dr. Harrison Ray Anderson.

I believe in the efficacy of prayer and of strong ethical preaching, and I have been a member of some organized church during my long residence in Chicago. Though I do not consider myself an orthodox Christian, and though sectarianism makes no appeal whatsoever, it is beyond my comprehension that anyone who thinks can appreciate the intricacies of Nature and yet fail to attribute their origin to a Divine Being.

The encouragement that comes from men and women who believe implicitly in a personal God stimulates my moral and intellectual life. I cannot follow them in their spiritual certainties, but I am subject to their influence, though I may not have been able to satisfy them as to the result. A prayer or a sermon by a sincere Christian always makes me feel a better man.

XI

As I stepped into my clinic on the afternoon of the last Thursday in the century, December 28, 1899, the hundred or more doctors in the amphitheater accorded me the usual applause, but on this occasion it stirred my imagination. I had been meditating throughout the day on the close of a great century, and presently found myself romancing in an improvised speech:

It was unparalleled progress that we were privileged to claim for medicine in the passing century! Justified was our boast of advance in the arts and sciences, in industry, in transportation, in communication, and in illumination. The entire standard of living had been raised, and life expectancy extended.

The dawning century—how little remained to be accomplished!

Not one of us would be alive to usher in the birth of the twenty-first century! Or was it within the range of possibility that our profession would furnish the key to longer life, thus enabling some of us to welcome the year 2000 as we were now welcoming the year 1900? In the light of the accomplishments of medicine during the preceding half century, was anything impossible? How wonderful to have lived at this time, to have witnessed the ringing down of the curtain of a century of progress and to have touched the button that rang up the curtain of a new century of prospects!

After a brief review of twenty years of progress in medicine and surgery, with genuine emotion I terminated my musings and wished my audience not only a happy new year but a happy new century.

26

1901–1905. EXPERIMENTS

I. The Shore Inn. II. Ovarian Transplantation.

I

HOSPITALS in 1900 were not equipped to offer to the patient the comforts, the scientific facilities, and the physical attainments which are today necessary attributes of every acceptable institution for the care of the sick. They were not generally equipped with private bathrooms and sitting rooms. Antiseptics, anesthetics, and other drugs then in general use permeated the entire institution. The food was distasteful to many fastidious patients. In other words, the ordinary hospital was the one place to which many people could not be induced to go.

Patients of means were usually referred to surgical specialists by the family doctor, either within Chicago or from neighboring or distant states. After these patients had observed the larger hospitals, to which people from all walks of life were admitted, they begged to be treated in one of the exclusive hotels, where the immediate members of the family could be housed in close proximity to the sickroom—a procedure only rarely permitted in a hospital. This was a perplexing problem, as hotels were inconveniently situated, and it was impossible to treat serious conditions, especially surgical cases, outside of a hospital.

Hence, in the early months of 1901, Dr. Phineas I. Mulvane, a retired medical associate, entered with me upon a plan to develop a private home for the sick where they could procure every advantage of the best equipped hospital, and also the super service of an exclusive hotel. "Hospital" was taboo, so we named our project the "Shore Inn."

Appreciating the importance of a central location, readily accessible to our leading specialists, we obtained an option from the University of Chicago on 40 x 160 feet of ground at the northwest corner of Michigan Boulevard at Peck Court (now Eighth Street), facing Grant Park. Our plan contemplated a building of substantial and dignified architecture; scientific equipment that would appeal to the specialists of a large city and their discriminating clientele; rooms furnished in a manner to attract people of refinement; food to be prescribed by the physician, prepared under the direction of experienced chefs in a dietetic department, served *à la carte*, and to be paid for accordingly.

Nimmons and Fellows, a firm of brilliant young architects, prepared a working exhibit which was of an appealing character. Our descriptive outline showed in minute detail every requirement and provision. It was our purpose to supply something that was demanded, but which no existing hospital could furnish. Thus we were not creating a competitor to the useful and well established institutions.

Our success, of course, depended upon the backing of certain of our medical confrères, and the prospective staff which we selected included without exception the outstanding specialists of Chicago, about one hundred in number, practically all of whom already occupied teaching and hospital positions. We decided to form a stock company, supported principally by the prospective medical staff and a few influential laymen.

The list of subscribers for our stock was rapidly completed, as all but a bare half dozen of the chosen one hundred were enrolled. This was encouraging, and with assurance of financial support we proceeded with our negotiations. Within the succeeding few months, a ninety-nine year lease was tentatively prepared by the owners of the selected site, blue prints were completed, and estimates secured on the cost of building and equipment, estimates of prospective administrative expenses, a forecast of the value of our investment; in fact, every detail was ready for the letting of contracts.

During several conferences with our stock subscribers there was evidence of genuine enthusiasm for every phase of our program, and as the date of our final meeting of organization approached, we required only the authority of our confrères to begin construction.

A dinner at the Union League Club was the scene of the culminating

event on January 6, 1903. Our prospective associates attended almost to a man.

The meal finished, Dr. Mulvane and I devoted two hours to the presentation of our report, which was received with genuine interest and acclaim. Several members of the audience spoke in laudatory terms of our accomplishments. No one seemed to have suggestions for improvement or even minor alterations. At the supreme moment, when everything was in readiness and only final approval by an affirmative vote was wanting, Dr. Frank Billings rose in his place and announced that he and a number of his associates had decided not to participate in our negotiations. They had obligations to the hospitals of whose staffs they were members, and they had only recently promised to aid those hospitals in carrying out plans similar to those contemplated in our project. After very careful consideration, therefore, they had reluctantly decided to withdraw their names and their subscriptions to the Shore Inn.

This astonishing announcement fell suddenly and unexpectedly upon the assembled group, and Dr. Mulvane and I were stunned. No other one of our enthusiastic followers appeared to have any conception of the identity of the individuals to whom Dr. Billings had referred as his "associates," nor had they the slightest intimation that such a break was contemplated. All appreciated, however, that they had been more or less influenced to support our enterprise because the leaders had approved and joined our ranks. Admittedly, the attractive features of our organization could never be duplicated in the large general hospitals which looked upon us as a formidable competitor; but nevertheless they were determined to incorporate some of the innovations that our organization contemplated.

I hesitated not a minute but cast one glance at my friend, Mulvane, jumped to my feet, and announced that the Shore Inn project was ended. Dr. Mulvane and I had started the project and had brought it within the reach of actuality; but we did not propose to permit our loyal supporters to follow our leadership when it was obvious that we could not fulfill our promise to the ultimate degree. We had not been engaged in the promotion of an ordinary stock jobbing scheme, and not one of our backers was obligated to us financially for even one penny. The loyal support that they had accorded to us had been a

great compliment. The most gratifying factor was the assurance that the great hospitals, through our initiative, had seen the handwriting on the wall and that they had been induced to promise Dr. Billings and his friends that they would revolutionize their procedures and improve the service which they were rendering to the patients within their midst.

I thanked the assembled group, announced that the Shore Inn corporation was adjourned, *sine die*, and took my seat.

There was considerable confusion and protest of one kind or another. Several asked who had paid the expenses of the dinners, the luncheons, clerical aid, and the organization fees during the several years. They had complimented us, I said, by being our guests, and we had no financial claims against anyone.

Following adjournment, a crowd gathered about me, protested the unfairness of the belated withdrawal of our associates, and urged me to think the matter over, to have another meeting, to reconsider, at least to permit them to share the expenditures. But their pleas were unavailing.

My friends, John B. Murphy, Albert J. Ochsner, and others pleaded with me during the succeeding days, and the persistency of my lifelong friend, Dr. Edmund J. Doering, almost reversed my better judgment.

The experience had its compensations. Mulvane and I had the satisfaction of knowing that we had gained the respect of many of our confrères who believed in the undertaking, in the soundness of its ideals, and the practicability of its future. It implanted in my mind the determination that hospitals, where scientific medicine and surgery must attain their greatest usefulness, can never be too highly developed.

Three or four years of hard work and the expenditure of not less than ten thousand dollars in cash was none too great a price to pay for such an adventure. It was my dream, and the law of compensations always demands its payment in full.

II

In 1901, a young woman sent me a communication asking if it would be possible to transplant ovaries into the pelvis of a woman twenty-

nine years of age from whom, for cause, the ovaries had been removed in a surgical operation. One year earlier, she said, her appendages had been removed for dysmenorrhea, but the surgeon failed to advise her in advance that it would be necessary to remove the ovaries.

In brooding over her strange fate (she felt that her life was blighted and her matrimonial prospects ruined), it occurred to her that her menstrual and child-bearing functions might be restored if a qualified surgeon could procure the necessary organs from another woman in whom sacrifice of healthy structure might be necessary, and transplant them into her sterile pelvis. The feasibility of this idea appealed to her so strongly that she wrote to a number of surgeons, among them myself.

I was unfamiliar with achievements along this line. Literary research, however, revealed the accomplishments of Robert T. Morris and others, dating back to about 1895. After careful experiments on animals, I informed the patient that I would be glad to perform the operation. One year later she presented herself.

I was careful to explain the difficulties which we had to surmount —we must obtain a subject from whom it was necessary to remove healthy ovaries, the tissue removed must be sufficient for our purposes, the donor must be free from serious constitutional taint, her age must be within the early child-bearing period, and the donor and recipient must be of the same race. The operation must be looked upon entirely in the light of an experiment, and my patient must be prepared to assume all responsibility if failure resulted. Being a woman of unusual intelligence and one who was thoroughly in earnest in her efforts to regain her normal condition, these preliminaries were very easily settled. The woman obtained a boarding place near the hospital to await the prospective patient who was likely to furnish proper specimens.

One month later, I found a satisfactory donor who consented to furnish the ovarian tissue if in the necessary operation on herself I decided that the material would serve my purpose.

In transplanting the tissue, it was necessary to restore a permanent channel from the seat of the transplanted ovary through the amputated fallopian tubes to the uterus. The operation in all of its details was

satisfactorily performed from the standpoint of my prearranged technique, and the patient recovered promptly.*

Through a follow-up system, monthly reports were received on this and similar cases. They revealed that the monthly function was restored to a degree in the early months, and that the unpleasant symptoms of premature menopause were materially lessened.

Gynecologists and many general surgeons were encouraged to investigate the subject.† Dr. Alexis Carrel (Nobel Prize winner, 1912) called on me soon after the appearance of my first publications, and outlined his proposed experiments in transplanting ovaries in animals by means of accurate approximation of the blood vessels of the tissues *in situ* with those of the transplant.‡

This chapter in surgery has brought to light extremely valuable information, not only in reference to the transplantation of ovaries, but especially as to ovarian and other endocrine secretions, the development of which is rapidly leading to practical results.

*From "Treatise on Gynecology," read before the Chicago Gynecological Society, May 15, 1903.

†Subsequent articles: Surg., Gynec. & Obst., Chicago, 1908, vii, 7–21; ibid., 1911, xiii, 53–63; ibid., 1915, xxi, 568–578; ibid., 1917, xxv, 336–346; ibid., 1922, xxxv, 573–587; Am. J. Obst., N. Y., 1911, lxiv, 303; ibid., 1915, lxxii, 140–144; Tr. Am. Gynec. Soc., Phila., 1911, xxxvi, 336–376; ibid., 1915, xl, 33–58; ibid., 1917, xlii, 257–277; ibid., 1922, xlvii, 11–31.

‡A. Carrel and C. C. Guthrie, Compt. rend. Soc. de biol., Par., 1906, lx, 466.

27

THE MAYO CLINIC

I. The Mayo Brothers. II. Their Inheritance. III. Genius Turned the Trick. IV. They Declared for Partnership. V. Mayo Foundation for Medical Education and Research, and the Mayo Properties Association.

I

THE Mayo brothers, William J. and Charles H., were first identified by me at a meeting of the Minnesota Medical Association in one of the Twin Cities, in about the year 1893.

A young man modestly stepped forward, was recognized by the presiding officer, and began his discussion of a paper that had been presented. His talk was very much to the point, and notwithstanding his boyish appearance, his words and manner were most impressive. He did not indulge in the usual complimentary references, and the wisdom he dispensed was too good to be true. The entire audience, including the older wheelhorses of the profession, listened with rapt attention, and applauded appreciatively as the speaker finished his terse, interesting, and definite discussion and took his seat.

A second young man, a boy in stature and appearance, addressed the audience. There was the same direct discussion, with pertinent references to distinguished men whose operations he had watched, and to recent scientific articles which he had perused. An occasional humorous observation brought smiles and chuckles from his attentive listeners. I was profoundly attracted to these young men, their simplicity, and their unconventional appearance.

"Who are these youngsters?" I asked of the doctor who was seated next to me. He looked surprised. "Don't you know the Mayo boys? They are two surgeons practicing in the little country town of Rochester, Minnesota."

My conversation with this man convinced me that the two country surgeons had already won the respect of their elder confrères in their state medical association.

In my subsequent perusal of medical literature, I noted that many of the articles on up-to-date surgical subjects in the best medical periodicals, articles that had the imprint of authority, were signed by William J. and Charles H. Mayo.

Soon after my visit to the Twin Cities, I called upon Drs. John Munro and Fred Lund, of Boston, leading surgeons of that conservative metropolis. They were enthusiastic over their recent visit to Rochester, Minnesota. Munro said, "We were truly inspired by what we saw and learned, and related the story of the accomplishments of these brothers to our confrères at home. To our embarrassment, we were looked upon as a couple of fanatics who had been 'taken in.'"

We in Chicago soon found that other adventurous surgeons from the far East, and even Europe, tarried a day in Chicago, our boasted medical center, and traveled on to spend a fortnight in the little town of Rochester, with the Mayo brothers.

Curious to see at first hand what it was all about, I invited Dr. William R. Cubbins to accompany me to Rochester. "Doctor Charlie," as he is affectionately called, spied us in his clinic, and to our astonishment invited us to his home for dinner. He said, "You know, Martin, my brother and I have stolen in on you at your clinic in Chicago, at the Woman's Hospital." And I hadn't known it!

We went to the little white cottage and had our first dinner with a Mayo. There was Edith, his wife, whom I discovered I had known in Chicago, and we drank in wisdom from the younger of the two brothers.

We were profoundly impressed by the miracle of the Clinic, and the personalities of its founders, and from that time on we, too, were propagandists and helped to wear the path that led to the doorstep of the Mayo Clinic.

II

These two men, whose achievements are the admiration of the entire scientific world of medicine and surgery, had a background of training under a mother and father who were physically strong, who were morally and spiritually sound, who were grounded with a sane education,

who were industrious and resourceful, who did their own thinking, who were thrifty in living and dominant in action.

Dr. William Worrall Mayo, the father, an Englishman by birth, was a man of purpose, adventure, and vision. He was recognized as a militant, filled two offices in the Sioux War of the Northwest Territory, settled in Le Sueur, Minnesota, and served as military doctor and provost marshal of the military forces.

Louise Abigail Wright, of Scotch birth, was a fit mate for her active and competent husband. She was a woman of education, and grounded her two sons in Latin, in the classics, and in wholesome living. When the able-bodied men of Le Sueur were driving the Indians west, after their savage depredation at the New Ulm massacre, she formed the little band of women who were left at home into a company of emergency defense, had them dress as men, and each day ostentatiously marched them about the stockade, armed with garden implements and shining kitchen utensils for the purpose of creating an appearance of defense. Thus the community was effectively protected from stray marauders of red men.

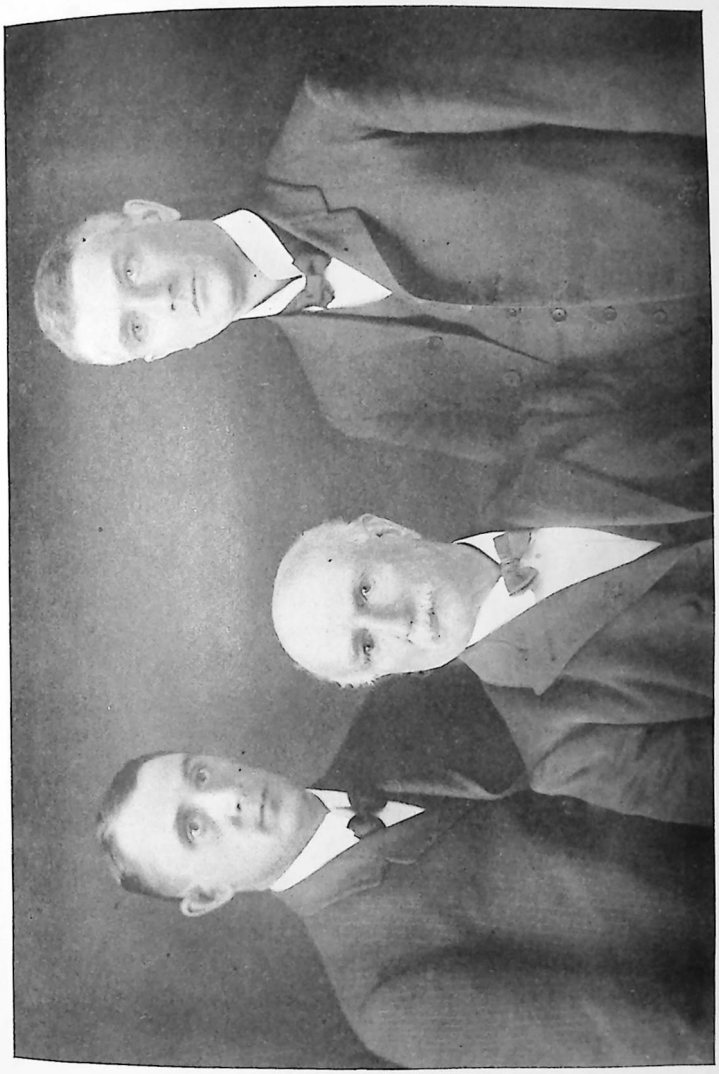
From these parents the sons inherited a spirit of militarism, competency, and judgment. William James Mayo was born at Le Sueur, in 1861, and Charles Horace at Rochester in 1865, whence the family had removed from the primitive home. In Rochester, the father continued the practice of medicine, and there the Mayo boys grew to manhood.

William graduated in medicine from the University of Michigan in 1883, and Charles graduated from Northwestern University Medical School in 1888. When they both returned to Rochester and engaged in the practice of their profession with their father, the seed of the Mayo Clinic was sown.

III

Genius turned the trick and genius is something more than "taking pains."

At an evening party soon after Will entered upon his country practice, he was asked by Judge Start, one of his elderly neighbors, what his life's plans were and to what large city he expected to migrate. The lad's serious reply fairly took the breath of the judge: "I expect to



CHARLES HORACE MAYO WILLIAM WORRALL MAYO WILLIAM JAMES MAYO

remain in Rochester and to become the greatest surgeon in the world." Perhaps it sounded like a romantic dream to the judge; but those of us who have learned to know and admire Will appreciate that he was not romancing—he was stating a fact. Plans were already seething in the minds of the two brothers.

To succeed one must make good. To fulfill the tenets of his calling, a doctor must diagnose diseases accurately, and cure his patients. To accomplish this he must have knowledge. To possess knowledge of the science of medicine he must familiarize himself with the achievements of the most competent doctors; he must make frequent visits to the masters of surgery and witness their work; he must visit his confrères in other lands; he must know by comparison how nearly right he is, measured by the standards of his peers. When he discovers or achieves something that all medical men should know, he must be unselfish enough to present it at medical meetings, and to publish it in medical journals. He must learn to talk and he must learn to write—all of this that every patient may be benefited by every advance in medical science. His best friends should be his associates in medicine, his scientific books, and the people of all classes who come to him for aid. His recreation should be a change of work, and devotion to his calling should be his greatest pleasure.

He cannot serve two masters—society and his profession. He must learn to think. He must practice economy. He must practice medicine as a profession and not as a business. Rich and poor are afflicted with similar diseases, and he must treat them with equal care and with equal faithfulness.

If a doctor makes a mistake, he must endeavor not to make the same mistake twice. If he is criticized, let him make sure that he does not deserve it. If he is misjudged by honest critics, let him endeavor to correct the misunderstanding. If he is the victim of malicious prejudice, let him ignore it. If he is unjustly attacked, let him not stoop to competitive methods. Above all, let him work to develop a judicious mind and a determination to carry out the ideals of his profession for the benefit of every human being with whom he has contact.

The above reflections were not published or spoken, but they must represent some of the basic principles upon which two boys builded their empire.

IV

When professional and financial success came to these practical idealists, they declared a partnership with their patients and with their professional brethren. They improved the environment in which they cared for their patients. They established scholarships whereby medical students and graduates could share in their work and success.

They soon taught spectacular operators that painstaking surgery, though lacking in showmanship, was to the best interest of the patient. The fame of the Mayos spread. Carefully they selected young men to assist them in their increasing duties. These associates were imbued with the spirit of their chiefs. Judd, Beckman, Plummer, Balfour, Graham, Wilson, and MacCarty were added. Later came hundreds of young men of brilliancy. There was ever a search for stars who could do something in any specialty better than anyone else.

Difficult medical and surgical problems are solvable when experts pool their talents. And this is a practice that is being pursued by physicians and surgeons in thousands of communities, through the facilities of approved hospitals and clinics which have aided in placing the surgery of the world on a very high plane.

Progressive physicians and surgeons the world over visit Rochester for purposes of observation and study. Medical societies, international congresses, and the universities of the world have honored themselves by conferring their decorations upon these two men. But they remain the same Mayo brothers, pursuing their work with superb simplicity and dignity.

V

Doctors William J. and Charles H. Mayo established The Mayo Foundation for Medical Education and Research in 1915, with a fund of $1,500,000 (now $2,200,000). In 1919, through a deed of gift, they conveyed all moneys and property of every description to the Mayo Properties Association, which is to eventuate in the Mayo Foundation for Medical Education and Research of the University of Minnesota. (The present value is $12,000,000.) Through these means the purposes and ideals of the founders will be carried out in perpetuity.

28

1905. SURGERY, GYNECOLOGY AND OBSTETRICS

I. Conception. II. Organization. III. Realization. IV. Loyal Aids. V. Achievements.

I

In 1904, the caldron of old-style medical journalism was boiling dry, and a new order of service, liberated from commercialism, was demanded. The *Journal of the American Medical Association*, launched by Nathan Smith Davis in 1883, was one existing medical journal that was divorced from extraneous financing.

My own experience with articles that I presented for publication made me realize that the medical profession was being exploited by the publishers of scientific periodicals. I was convinced that this unfortunate condition could be remedied if the profession were to organize a practical journal for practical surgeons, edited by active surgeons instead of *littérateurs* only remotely connected with clinical work, the profits from such an enterprise to be utilized in strengthening its worth and influence.

Figures which were secured from a reliable publisher, Mr. T. E. Donnelley, of R. R. Donnelley & Sons Company, a friend of long standing, substantiated my theory that a high-class journal, with the circulation and legitimate advertising that it would attract, could be conducted at a definite profit.

John B. Murphy, when I related my story to him, was afire with enthusiasm. There was a real need for a great surgical magazine, one that would include all of the specialties of surgery. What was required in the way of financing? We discussed this at considerable length. Then he said: "Martin, this is your job." I protested that no one was less fitted for the task than myself. Besides, I had done more than my share of other people's work. He persisted: "We will finance it and give you absolute control; it will become your journal." I was flat-

tered, but I was not seeking another job. My professional duties were more appealing to me than anything else, and in every administrative undertaking I had been forced to neglect them.

Nevertheless, the conversation with Murphy was intriguing. I talked it over with my secretary, Miss Margaret Bowen,* an educated woman of mature judgment; efficient, industrious, ambitious, and loyal to my enterprises. She had independent means, and was devoted to her work. She immediately said: "Dr. Murphy is right. You are the one to do it. It will be a monument. I want to help you. Let us begin at once! It will save the writers and readers of the profession from the annoyances to which you have been subjected."

And, of course, I told Isabelle of my new dream. She opposed it, for, she said, I was already working beyond my reasonable strength. I argued that the plan was mine, that I would be annoyed if someone else were assigned to carry it out, and, anyway, it would always be on my mind. It would be better to assume the burden myself than to fret because of the failure of someone else. Isabelle and I were almost at an impasse when four of my young aspiring confrères appeared —Frederic A. Besley, Allen B. Kanavel, William R. Cubbins, and John Hollister—all my intimate friends and former assistants, who were coming into their own as practitioners of surgery and as teachers in our medical schools.

Isabelle retired from the dining room and consoled herself with copious tears as I unfolded my plan to the four young enthusiasts. Of course I was brutal, but I had gone too far to back out until I had tried my salesmanship on the unwary youths. The new enterprise burned into their ambitious souls, for each of them was to be on the Editorial Staff of the greatest surgical journal, side by side with the leaders of surgery of the world. My own enthusiasm was reinforced and rejuvenated. Isabelle—slowly but wholeheartedly—eventually yielded to my urging.

II

I decided to undertake the project, and to enlist the interest of surgeons of reputation as sponsors. Among these were Nicholas Senn, John B. Murphy, George W. Crile, and W. J. and C. H. Mayo. Only

*Now Mrs. Albert D. Shepard.



FREDERIC A. BESLEY



ALLEN B. KANAVEL

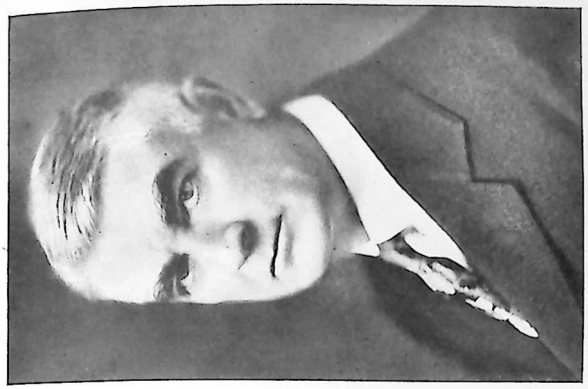


WILLIAM R. CUBBINS

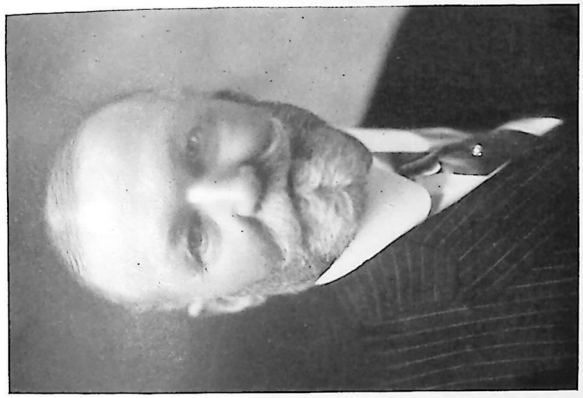


JOHN HOLLISTER

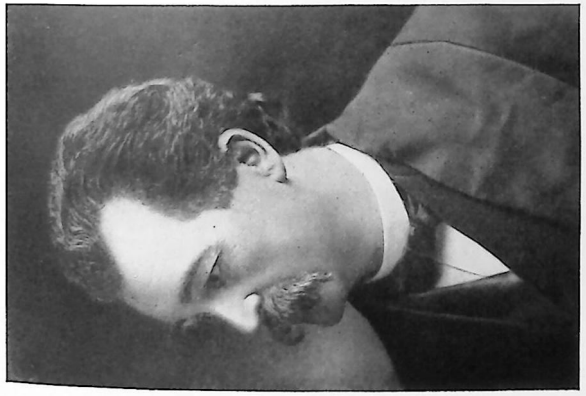
AIDS IN ORGANIZING "SURGERY, GYNECOLOGY AND OBSTETRICS"



WILLIAM J. MAYO
1916–



JOHN B. MURPHY
1908–1916



NICHOLAS SENN
1905–1908

CHIEFS OF THE EDITORIAL STAFF, "SURGERY, GYNECOLOGY AND OBSTETRICS"

actual practitioners of surgery (not academic editors) were eligible for the Editorial Board and the actual Editorial Staff.

Financial aid was accepted from interested associates only to the extent of forty-nine per cent, thus leaving the controlling interest in my own hands. Our subscriptions, sufficient to insure stability and permanence, were paid in easy installments, and with the stipulation that they would be returned when the enterprise became self-sustaining. Dr. Murphy offered many helpful suggestions, and backed the new publication with his influence and his finances.

III

The journal must have a name. No child was ever burdened with a less euphonious designation—*Surgery, Gynecology and Obstetrics*.

Dummies of the first issue were produced by my interested friend, "Ted" Donnelley. His organization studied qualities of paper, color and type-style for the cover, illustrations, and physical make-up of the contents. The set-up was approved by all.

Nicholas Senn, of international reputation, headed the Editorial Board of eminent surgeons of Chicago, eleven in number, followed by "Franklin H. Martin, M.D., Managing Editor; and Allen B. Kanavel, M.D., Associate Editor." Our "Collaborators" included the leading surgeons of the country.

Then followed six months of preparation by our group of amateur publishers. Each one of us worked as he had never worked before. Mr. Donnelley backed us to the limit with the facilities of his adequate printing establishment. Miss Bowen, under proper coaching, enrolled an astonishing number of advertisers for our first volume, and conducted a campaign for subscribers in which she was likewise successful. The surgeons of all America had been waiting and hoping for just this innovation. The first cash subscription was from Brooks H. Wells, Editor of the *American Journal of Obstetrics*, and one of our subsequent worthy competitors. He congratulated us on our courage, and commiserated with us on our future.

Six hundred paid subscriptions were registered when the Journal came into being on July 1, 1905, with the initial article by our distinguished Chief, Prof. Senn.

The appearance of an article by Joseph C. Bloodgood, of Johns

Hopkins University, was delayed until the second number of the Journal, because of difficulty with his artistic colored illustrations by the well-known artist, Max Brödel. A famous firm of Boston lithographers had furnished satisfactory proofs of one of the illustrations, but the estimated cost of production was very high. Donnelley's art department, after a prolonged research in four-color work, declared that they could reproduce the pathological specimens in natural colors by a process even more satisfactory than lithographing, and they proceeded to furnish proof. Dr. Bloodgood preferred the Donnelley product, and this marked the establishment of the four-color process for surgical illustrations.

In 1908, we desired to establish a British edition of the Journal. Miss Bowen undertook the task, and again demonstrated her capabilities. The Journal has an Editorial Staff in the British Empire, and also a substantial list of subscribers.

The *International Abstract of Surgery* was added to the Journal in 1913. Through this medium accurately prepared abstracts of the worthy surgical literature of all languages and a comprehensive bibliography of current surgical contributions are furnished to our subscribers.

As a consequence, the Journal has doubled in size. It is to be found in every medical library of the world, and its circulation excels that of any other special surgical or medical journal of equivalent value.

From the beginning, *Surgery, Gynecology and Obstetrics* has been a success—professionally, scientifically, artistically, and financially. Within four years, when only one-half of the original subscriptions had been called for, the promoters were relieved of further payments. During several succeeding years they received substantial interest on their investment; and in 1920, the subscriptions were redeemed at par, affording them a fifty per cent bonus on their original investment.

The Journal is now owned by Mrs. Martin and myself. It has purchased and maintains its own quarters, immediately adjoining the American College of Surgeons.

Incidentally, Isabelle is thoroughly convinced that her genuine tears of long ago were shed in vain, and I have had abundant proof that she has forgiven me for my brutal stubbornness.

IV

As *Surgery, Gynecology and Obstetrics* increased in popularity and in size, it was advisable to secure an aid who had a knowledge of printing and of book making, someone who would become our general manager.

Picking men for key positions is a difficult task even for experienced executives in big business. A young man applied for the job. He was one of many. His name—Albert D. Ballou.

"What do you know about accounts, and about printing costs and printing bills?" Very modestly he claimed that he did know about those subjects, and that our small problem should be a very simple one. He believed that our fundamental need was for an all-round aid—a business manager. He frankly disclaimed any knowledge of medicine. He had been educated in Iowa, had been a newspaper man, was the son of a Methodist minister, was married, and had several children.

The applicant was especially reserved and quiet in demeanor, and he was a gentleman. My four associates liked him, and we decided to give him a trial, especially as he was satisfied to accept a moderate salary.

This modest man has been a loyal friend. His judgment is always sound, his advice is frequently sought, his many-sided tasks are invariably finished with time to spare, and because of their magnitude, with the profound admiration of his colleagues. As I write this paragraph—April 1, 1932—his associates in the Surgical Publishing Company are giving him a beautiful testimony of their respect and affection, commemorating his twenty-five years of service as General Manager.

There are other members of the inner group, my associates, who conscientiously, year after year, have carried on with our intricate program: Mertie E. Spencer of our Editorial Staff since 1907; Florence O'Brien Donnelly, my secretary from 1908 to 1912; Mina Ulrich in charge of our Accounting Department since 1909; Maurice Leigh, our Advertising Manager since 1913; Leonora Perry of the Editorial Staff of the Abstract (1913); R. U. Myers of our Subscription Department (1916); Dr. Loyal Davis, our Associate Editor; Dr. Sumner L. Koch and Dr. Michael L. Mason, our Abstract Editors. Theirs has been a labor of love, and theirs are names that deserve not only praise but permanent monuments.

V

At the end of its first year there were in excess of two thousand paid subscriptions on the books of the Journal. During the years that followed a steady growth has been maintained, so that today its circulation exceeds 13,000 copies monthly and extends to every part of the world. The establishment of the British edition in 1908 served to accelerate materially the growth of its influence abroad and added to the subscription list the names of thousands of active surgeons in Great Britain proper, throughout the British Empire and the European countries. It is especially pleasing to note that the growth of the subscription list in foreign countries has kept pace with the growth of the list on this continent.

In the fifty-eight volumes that have been completed, one finds that more than eight thousand original contributions have been published, covering all phases of surgical activity. Forty thousand pages of text represent only that section of the Journal devoted to original articles. An index of the contributions contained in the first forty volumes was published in 1925, making a book of three hundred pages. Thirty thousand pages were devoted to the *International Abstract of Surgery* for the presentation of fifty thousand abstracts, of which fully one-half were of articles published in foreign languages.

Among scientific periodicals *Surgery, Gynecology and Obstetrics* rates as one of the large publishing enterprises. Its large circulation and high standards of printing and illustrating demand mechanical facilities which may be found only in a very large printing organization equipped for both volume and quality production. For the average issue more than twelve tons of paper are required, and so insignificant an item as printing ink amounts to 125 pounds for a single issue.

From the first the advertising department set a definite standard of service, extending to the advertising pages the same pattern of excellence as is maintained for the text pages. Advertisers whose products are found worthy of position in its pages have been encouraged to make their advertising copy both interesting and instructive.

Thanks to the loyal support of so large a group of subscribers and contributors, the Journal has achieved an outstanding success and leadership in the field of medical science.



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1910–1911. CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA

I. "Show Me" More Convincing Than "Tell Me." II. The Vision. III. The Reality—The First Clinical Congress in Chicago. IV. We Organize for Permanency. V. Philadelphia Entertains the Second Congress. VI. New York Is Host to the Third Congress.

I

Soon after the turn of the century, the members of the profession of medicine began to manifest a change in their attitude toward special associations of surgery and the allied specialties. They were dissatisfied with the routine, academic papers that merely told of things that were happening, and their technical and mechanical problems impelled them to seek actual demonstrations in the operating rooms of their confrères. This, they reasoned, was the surest means of differentiating between the worth-while procedures and the unacceptable.

On July 11, 1903, the Society of Clinical Surgery was organized by a select group comprising Doctors George W. Crile, James G. Mumford, John C. Munro, Charles H. Frazier, George E. Brewer, and Harvey Cushing. It was a brilliant impulse with far-reaching influence. Several times each year they visited one or another of the larger surgical centers of the world and saw their colleagues actually at work in their own clinics. Long, technical papers were not countenanced, but they indulged in an informal and familiar give and take. The capable operators were soon segregated from the surgeons with literary and theoretical talents alone.

At the same time our medical schools were replacing the oratorical, didactic mode of teaching with practical demonstrations. The large classes were separated into smaller groups who were taught at the bedside and in the laboratory. Every thinking man in the profession observed and pondered.

The phenomenal acceptance of *Surgery, Gynecology and Obstetrics* was conclusive proof that the profession preferred to receive information directly from practicing surgeons rather than from non-practicing editors who acted merely as interpreters. And it was far better to have a practicing surgeon demonstrate his work than to have him tell about it.

II

In 1910, Isabelle and I were cruising in the Mediterranean. The restful days at sea attuned dormant thinking apparatus; perspective was broadened, and unimportant details gave way to sane consideration of fundamentals. The restfulness of a boundless sea encourages the daydreamer to indulge his fancy, and makes his dreams come true.

We were fifteen days out. The day was beautiful, and the Mediterranean in its most intriguing mood. I had walked miles and miles around the deck of the "Arabic." The implanted leaven in the brain was seething. "Why not make a demonstration? No harm will be done even if it fails. *Surgery, Gynecology and Obstetrics* has influence enough to invite its subscribers to visit the surgical clinics of Chicago as the guests of the Journal, without dues or contributions of any kind. The great hotels will gladly furnish space for headquarters. The surgeons of Chicago or any other large city will welcome the visitors. The hospitals will provide interesting clinics."

That evening the apparition took definite form as I poured out my story to Isabelle. She saw no flaw. She had long been reconciled to my earlier undertaking, the Journal. This time she did not weep in opposition. Conservative to the last, she could only say: "The fact that I am in sympathy with your plan makes me feel that it may not succeed."

From that moment the Clinical Congress of Surgeons of North America was a reality. Before the "Arabic" landed in New York harbor every detail had been thought out, every hurdle negotiated; and even the date of the début, November of 1910, was determined upon. There were, of course, a few nebulous clouds; but they were easily reduced to the purest crystal.

III

The first announcement appeared as an editorial in the September, 1910, issue of *Surgery, Gynecology and Obstetrics*.

A CLINICAL MEETING

". . . The tendency to learn by watching the actual work of the masters has become more and more popular, and the demand of the spirit this has engendered is for greater opportunities for clinical observation. If the technical skill of American surgeons, or those of any other community, is especially excellent it is because these surgeons are willing and anxious to learn by observing and being observed while actually at work in the operating room. This sort of training and observing has without doubt unhorsed a few literary and oratorical clinicians, but on the other hand it has brought to their proper perspective the hard-working, painstaking surgeons who make good.

"A recognition of the above facts, after duly considering their purport and the tendency of the times, has led the editors of *Surgery, Gynecology and Obstetrics*, in an endeavor to still further amplify the clinical idea, to invite to a clinical meeting, not a limited number to see the work of a few surgeons, but, as far as practicable, every man in the United States and Canada who is particularly interested in surgery, to observe the principal clinics in one of the large medical centers.

"The initial test of this experiment will be inaugurated in Chicago . . . November 7th to 19th. The program will consist of operative clinics extending from 8:00 a.m. to 5:00 p.m. each day during the two weeks. . . ."

The Chicago surgeons were enthusiastic. A committee of the leaders was organized, and they gave their best in working out the details.

It was an innovation that the academic orators and medical politicians watched with amusement that they did not conceal; but it stirred in the minds of practical surgeons a hope that the advantages of the Society of Clinical Surgery were now to be extended to all progressive specialists. At any rate, many of them evidently decided that they would see for themselves, as thirteen hundred men responded to the several thousand invitations that were issued, and registered on the opening day. (We had expected a possible two hundred, discounting the interest indicated by the advance correspondence.)

Our registration booths in the LaSalle Hotel were under-served and we were obliged to call for volunteer assistants. Our bulletins, which

were posted at headquarters, had to be reproduced each day in printed leaflets.

The large clinics were overcrowded, and many of the smaller ones were obliged to expand temporarily. The men in attendance were discriminating. They wanted to see many modest operators whose work had attracted them but who were not prominent in the regular society proceedings; men who were proving themselves in action.

Many unassuming, practical, efficient surgeons, with well organized laboratories, aids, diagnostic and hospital facilities, demonstrated that they had ability; while not a few men, whose reputations were based on literary theses that they had read or published, proved a great disappointment.

Many surgeons urged perpetuation of the clinical meetings through an organization that would insure a yearly opportunity to see the work of master-surgeons in one of the clinical centers of North America. John B. Murphy struck the key-note:

"Hearing papers and reading papers is one thing. Seeing men do things is another. We all know that no such benefit can be derived from hearing papers read as one can obtain from seeing the work done right before us. When you see and hear it in the latter way, it is a part of yourself. When you hear it read, it is still the author's, although a small part of it has been absorbed by yourself."

At the end of the first week, after widespread publicity had been given to the novel venture, a group of surgeons of Philadelphia sent on an emissary in the person of Dr. John B. Roberts with an invitation to hold our next meeting in the Quaker City. Feeling that it would be unwise to act hastily, I consented to visit Philadelphia for the purpose of discussing the matter with the leading clinicians. Dr. Roberts hastened back with the message.

IV

At the suggestion of Dr. James Beaty Eagleson, of Seattle, a meeting on permanent organization was held on the afternoon of Friday, November 18, the day before our two weeks' session was to adjourn.

Dr. Murphy's clinic had been a favorite rendezvous for the surgeons in attendance, and he was the popular choice for the presidency. Hence I wished to make certain that he would be at the meeting.

"Who is to be elected President?" was his prompt query. My hesitation indicated that he was under consideration.

He said, "Martin, it must be definitely understood that I am not a candidate."

I protested that he would have little to do with the selection; that, frankly, no one else had been thought of.

"When is the meeting to be held?" he asked.

"In about fifteen minutes," was my reply.

He said he wished to go with me. "Ochsner is the man. He is the most beloved of our leading surgeons. I will go with you and nominate him myself."

I told him that I doubted if he could stem the tide.

"I am President of the American Medical Association this year, and Ochsner is the one to be honored here. I will not accept it, for I have already assumed the other important obligation."

Dr. Eagleson was calling the meeting to order as we appeared. Catching sight of Murphy, the audience rose and gave him a cheering welcome.

As was his temperament, he responded with a thrilling speech, lauded the new era of surgery, and reminded them that the organization which they were about to create must be started right by electing a leader of clinical surgery as the first President.

With great enthusiasm, he spoke of the outstanding surgical qualifications of a candidate he had in mind—a great friend of surgery, a great operator, and one whom everybody loved and respected—Dr. Albert J. Ochsner.

There was applause and some hesitation. Taking the reins into his own hands, he turned and pointed to someone: "You second the nomination." Then he turned to the audience and asked that the nominee be elected by a rising vote. The response was instantaneous and unanimous.

There were calls for "Murphy! Murphy!" He took up his hat, thanked his confrères for the great compliment they had paid him, bolted from the room, and returned to his office. This was generous John B. Murphy in action.

The program of organization was consummated, and the Clinical Congress of Surgeons of North America was an accomplished fact.

No one, not even its originators, could possibly have dreamed of the power and influence that it was to wield in the surgical world. This rapid action may indicate that we were overwhelmed by the phenomenal success of our undertaking. We were rather excited about it, and did not propose to lose the effect of the momentum that our efforts had created, and which was destined to revolutionize the conduct of surgical societies.

On the evening of Tuesday, December 6, I met with the eminent clinicians of Philadelphia at the home of Dr. John G. Clark. Following dinner, I described the objects of the Clinical Congress and gave an account of the Chicago sessions, which Dr. Roberts spoke of as a "miracle meeting." A Committee on Arrangements was forthwith organized, with Dr. Clark as Chairman.

V

The second Clinical Congress was held in Philadelphia November 7th to 16th, 1911. A nominal registration fee of five dollars, to cover the administrative expenses, was asked of each member who actually attended the meeting. (The first Congress in Chicago had been financed by the Journal.)

Fifteen hundred doctors enrolled for the second session, and it was estimated that fully as many more witnessed the clinics without registering. There had been some confusion in the handling of tickets; but the popularity of the program had, nevertheless, been demonstrated. The clinics were well conducted, and the visitors were enthusiastic, notwithstanding a few obvious defects.

VI

Before the conclusion of the Philadelphia sessions, four individual delegations from New York had been received; and it was therefore decided to hold the third meeting of the Congress in that city in November of 1912. I arranged to visit New York before returning to Chicago, and invited the spokesman of each delegation, and four of his confrères whom he was privileged to select, to have luncheon with me at the Waldorf-Astoria.

It was a strange get-together, and illustrated the fact that the surgeons of New York had little personal contact, although they were

all members of the leading national societies and of local surgical organizations. I soon discovered that no one man of my luncheon group had previously met all of the others who were present. They were, however, unanimous in their desire to invite the Clinical Congress to the great metropolis, and promptly proceeded to organize. Dr. George E. Brewer was appointed Chairman of the Committee on Arrangements, and Dr. Charles H. Peck the Secretary. The old Waldorf-Astoria was selected as headquarters, and the Congress was scheduled for November 11th to 16th, 1912.

Mr. A. D. Ballou, the General Manager, in coöperation with our efficient Committee, had everything in readiness for a great meeting. Advance registrations were pouring in, and it was obvious that our informal organization would be strained to its limit.

An embarrassing situation developed. Certain surgeons whose clinics were well organized refused to be scheduled in our program with a number of inferior clinics; and the clinicians representing the latter group insisted that they should be included.

Obviously, this was a problem that required satisfactory adjustment if our organization was to survive. As I mulled the matter over in my mind, I decided that our basic structure was too loosely knit; that there should be some means of limiting attendance to the registered surgeons; some means of controlling attendance on each clinic; of enforcing hospitals to recognize tickets as a requirement for admission; of scheduling only acceptable clinics and clinicians. Standards, ethics, and the general acceptability of the members were acute problems. In a word, the Congress had outgrown our original plans.

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1912–1913. AMERICAN COLLEGE OF SURGEONS—IN PROSPECT

I. Another Vision. II. Developing Plans. III. A Tour of Two Countries—Baltimore. IV. Philadelphia. V. New York. VI. Boston. VII. Rumblings of Opposition. VIII. The Westward Trek—Los Angeles, San Francisco. IX. Off to Portland, Seattle, Vancouver, Winnipeg, Minneapolis, St. Paul, Kansas City, St. Louis, and Home. X. To Washington, D.C. XI. The Great Day—May 5, 1913. Preliminary Conference, Committee of Twelve. XII. Caucus of Committee of Committees. XIII. Organization Conference. XIV. Praise to the Victorious.

I

I WAS en route to New York on the Twentieth Century, within a week of the opening of the third annual session of the Clinical Congress of Surgeons. The wheels in their grinding kept reiterating: "There must be a change; there must be a change." Then and there I formulated my program. It involved a new organization, through which definite qualifications for membership would be established. The plan was dictated to the train stenographer, and the result placed in my pocket, that it might "age" while I indulged in more mature thought.

There was feverish enthusiasm in my soul as I arrived in New York. I rushed to a telephone at the Waldorf-Astoria and inquired for "Dr. John B. Murphy of Chicago." Murphy responded to the call and said, "Come right up." He was only partially dressed and invited me into the bathroom as he finished shaving.

His first words were something to the effect: "What brought you here at this unearthly hour?" I explained that I wanted his help in an important matter.

"Yes, yes. What is it?"

"I have thought out a plan that will make it possible for us to take

advantage of the organization of our Clinical Congress, make it less confusing, and secure for it the support of every qualified surgeon."

"Yes, yes," he urged. "What is it?"

I drew two typewritten sheets from my pocket—the plan proposing a college of surgeons of the United States and Canada—which embodied the following suggestions:

1. A standard of professional, ethical, and moral requirements for every authorized graduate in medicine who practices general surgery or any of its specialties, in so far as feasible along the lines of the Royal Colleges of Surgeons of England, Ireland, and Scotland.
2. A supplementary degree for operating surgeons.
3. Special letters to indicate fellowship in the college.
4. A published list of members of the college.
5. The appointment of a committee of twelve members of the Clinical Congress with full power to proceed with the plan, if careful consideration proved its worth.

The details, of course, were elaborated. Murphy was intensely interested and asked the privilege of seconding and supporting the plan when it was presented. I was delighted at his reaction, and proceeded to discuss the personnel of the proposed committee of twelve; and on this point he, too, agreed.

The prospectus was then submitted to our autocratic President, Edward Martin, whom I located in one of the exhibit rooms of the Congress. As we stood in a crowded corner, with confusion and crowds all about us, I outlined the plan and told him of Murphy's reaction to it. Edward, always to be counted upon when something worth while was to be done for the profession, rejoiced over the prospect of relieving our embarrassment. Then he condescendingly patted me on the back and said: "Go the limit, Napoleon." This was rather disconcerting; but a sense of humor is a saving grace!

There was a veritable jam at the headquarters of the Clinical Congress. More than twenty-six hundred doctors registered during the first two days, and hundreds were in attendance who failed to register. Fortunately, the clinical facilities were extensive, and, with some maneuvering, they proved satisfactory. Scientific papers were presented at evening sessions, each of which was attended by an overflow audience.

We were now fully convinced that there was a need for a new organization, closely allied with the Clinical Congress, that would aid in controlling the personnel of its members, its clinicians, and its moral and ethical regulations. At the business meeting, held on the afternoon of Friday, November 15, I presented my plan for a college of surgeons and moved its adoption. Dr. Murphy seconded the motion, and supported it with a strong, enthusiastic speech that brought the two thousand men to their feet. The proposed plan was unanimously approved, and the following committee on organization appointed by the President, Edward Martin: Emmet Rixford of San Francisco, John B. Murphy of Chicago, Rudolph Matas of New Orleans, Albert J. Ochsner of Chicago, Charles H. Mayo of Rochester, Frederic J. Cotton of Boston, George Emerson Brewer of New York, John M. T. Finney of Baltimore, Walter W. Chipman of Montreal, George W. Crile of Cleveland, Edward Martin of Philadelphia, and Franklin H. Martin of Chicago.

We were now cheered on by observers who had pronounced that the Clinical Congress was "too good to last." Many asked the privilege of aiding in our administrative work. Others who were more or less indifferent to the administrative phase of our plan were keenly interested in its scientific value.

I remember well one young man, a prominent urologist of New York, whom I had met only casually. He said: "This is a wonderful idea which appeals to the specialists. If there is anything that I can do in the way of support, please call upon me."

These quiet words, though not unlike many similar expressions at that busy time, somehow impressed me as being unusually sincere; and I was right in my estimate. The man who spoke them became an esteemed friend, one who has great influence among the surgeons of New York, a distinguished teacher of didactic and clinical urology, and a modest but effective worker in all the subsequent activities of the Clinical Congress and of the American College of Surgeons. As I write, he is the honored President of the College—J. Bentley Squier.

Also at the business meeting of the Clinical Congress of Surgeons of North America, held in New York on November 15, 1912, Allen B. Kanavel presented a resolution which provided "that some system of

standardization of hospital equipment and hospital work should be developed, to the end that those institutions having the highest ideals may have proper recognition before the profession, and that those of inferior equipment and standards should be stimulated to raise the quality of their work . . ." and that "the President of the Congress be authorized to appoint a committee from the profession, delegated to carry the spirit of this resolution into effect, and report at the Clinical Congress in 1913." The motion was seconded by Frederic A. Besley, and the following committee was appointed by the President, Edward Martin: Ernest Amory Codman, Chairman; Walter W. Chipman, John G. Clark, Allen B. Kanavel, and William J. Mayo.

Dr. Codman reported in behalf of the committee at the 1913 and 1915 meetings of the Clinical Congress, and presented an End Result Record System and suggested the appointment of an efficiency committee in each hospital.

At the suggestion of Dr. Thomas S. Cullen, of Baltimore, one evening had been given over to the consideration of cancer. This meeting, held at the Academy of Music, in Brooklyn, proved historic, as a committee was appointed that formed the nucleus of the American Society for the Control of Cancer, which was organized following the Congress of Physicians and Surgeons of North America, on May 22, 1913.

The Clinical Congress of Surgeons of North America functioned as an independent society until 1917, when it was amalgamated with the College. It is now known as the Clinical Congress of the American College of Surgeons. It has a separate registration fee, it is self-sustaining, and only those attending its meetings contribute to the yearly Congresses.

II

Anxious to maintain the momentum and enthusiasm that Murphy's stirring presentation had created, the newly appointed committee promptly met to discuss ideals and purposes.

My own concrete program of organization urged the necessity of immediate action. A list of prospective Fellows which I had tentatively compiled was enormously long; but as it gave a cross section of the large field we were to cover—the entire United States and Canada—

I suggested that from it four to five hundred names should be selected. Each of the chosen prospects should, if possible, be visited by some member of the committee and urged to attend an organization meeting on the evening of May 5, 1913, at the New Willard Hotel, Washington, D. C., where the Congress of Physicians and Surgeons of North America was to meet on succeeding days. My fellow committeemen were somewhat alarmed by the seeming haste, and the prospects of work that they would be called upon to do.

My next suggestion met with an astonishingly cordial reception by the assembled group. It proposed that I compile (for the approval of the committee) a list of the leading cities of the two countries, and of the outstanding prospects in those cities. Further, if the committee desired, I would be glad to visit the cities selected, and present the plans of the proposed organization.

I was authorized to proceed forthwith.

Immediately after the adjournment of the Clinical Congress, on November 25, 1912, an Illinois charter was obtained which secured to the organization the legal right to the name "American College of Surgeons."

III

During the week of January 20, 1913, I made a preliminary canvass of the eastern seaboard cities. Local committees had arranged the respective meetings to which they invited the heads of departments of surgery in the medical schools, and other leading surgeons.

My itinerary included: Baltimore, Washington, Philadelphia, New York, Brooklyn, and Boston; and subsequently Toronto, Montreal, and Cleveland. Following March 6, similar meetings were held in Los Angeles, San Francisco, Portland, Seattle, Vancouver, Winnipeg, Minneapolis, St. Paul, Kansas City, and St. Louis. Our plans were presented to other sections of the country by correspondence or by less formal personal contact.

My first meeting, in Baltimore, was planned through correspondence with Dr. John M. T. Finney, a member of our committee on organization. When I called on him a few hours before the evening conference, he promptly asked, "What do you want me to do?"

I replied: "Preside at the meeting and aid in explaining the object that we hope to accomplish."

Dr. Finney was busy, but polite. He said he hadn't a very clear idea himself of the object of the meeting. In a few words I outlined my plan and said that I would endeavor to elaborate the details at the meeting; and then, with his aid as Chairman, we could encourage a free discussion. I was almost a stranger to this energetic man; but I realized at once that he had to be convinced before he would lend his aid—a characteristic quality that subsequently I learned to prize.

Some thirty men had assembled in a committee room of the Baltimore Academy of Medicine. Dr. Finney presided, and without attempting to explain the object of the meeting, called upon me. The select audience was not in a sympathetic mood; obviously they were not well-disposed toward any kind of a new surgical association.

In a halting manner I stated that my presence in their midst was in fulfillment of an obligation that had been imposed upon me by a committee of the Clinical Congress. In behalf of that committee, I wished to extend to them an invitation to attend a conference in Washington on May 5, to consider the advisability or inadvisability of organizing an American association that would parallel, in so far as conditions were comparable, the Royal Colleges of Surgeons of England, Scotland, and Ireland; that the underlying object of the proposed association was to attain a higher standard of surgery, and to establish means whereby the public could discriminate in the selection of a qualified surgeon.

A big, good-natured surgeon, whom I had known for several years, interrupted me. Did we have in mind the establishment of a glorified surgical union, along labor union lines? I smiled; but noting that the somber group took the question seriously, I replied that in my remarks I would attempt to explain our tentative plans, which would undoubtedly eliminate the impression that had been created in Dr. So-and-So's mind.

Painstakingly, I outlined the circumstances that had led to the consideration of an association of qualified surgeons.

Why should not the great universities do the very things that the new association contemplated? Were they not doing them already? were the resulting queries.

"Yes," I said, "they are doing those very things, or attempting to do them; but would not their efforts be strengthened if they were to receive aid from a representative association of surgeons, many of whom, though not teachers, are independent supporters of high educational standards?"

"Well, why can't the American Medical Association carry on the service you propose?"

This was an easy thrust to handle. "I would like to ask you the same question. Why shouldn't they do it? Are they doing it?" I said as pleasantly as I could. There was the semblance of a smile on a few of the adamant faces.

Genius was not burning. In concluding my uninspired talk, I passed a card to each man present and asked that he sign it and hand it back to me if he desired an invitation to the contemplated meeting in Washington. Each man thrust his card into his pocket.

As I took my seat, someone asked how many were to be invited to the Washington conference. I said that it was our plan to limit the invitations to about four or five hundred.

"In other words," he retorted, "this is another Bradley Martin move to create another exclusive Four Hundred in the profession."

This created general laughter, in which I cheerlessly joined.

Someone called upon Chairman Finney. I was pleased in anticipation, but doomed to early disappointment. The Chairman rose, and in a disconcerting manner said something to the effect that he did not know much about this whole thing; but we ought to consider it carefully and go pretty slow about committing ourselves. He asked for further remarks.

The persistent questioner again rose. He could see reasons for establishing such an association, he said, and he hoped that I would excuse his many interruptions, but he felt that others in the room had had the same queries in their minds, and by answering his questions I had added much to their knowledge of the subject.

Meanwhile my audience had dwindled until a bare half dozen remained. The cards that were to have been signed on the dotted line were not in my possession.

We meandered out into the corridor. More than a dozen of the men who had left the room slipped their signed cards to me.

After this first contact, which had saddened me greatly, I was a wiser man.

IV

On the succeeding evening, the John G. Clarks were royal hosts to a select group of thirty surgeons in Philadelphia.

After dinner we adjourned to the drawing room, where the guests, filled with John Clark's delectable dinner, settled back in a receptive mood as they puffed away at the favorite Havanas. I was put on my mettle by the introduction that was accorded to me by the Chairman, Dr. Edward Martin, whose intriguing sense of humor pervaded any serious occasion.

Everything went smoothly. My story, which was related with facility, was generously applauded. Dr. Robert G. LeConte, a worthy second to Edward Martin, promptly took the floor. The plan had been lucidly explained, he said, and as there remained only the formality of approving it, he wished to present a motion to that effect. There were several seconds, and the motion was open for discussion. Two of the men present, who always did their own thinking, believed in expressing themselves whenever they were not in accord with the conventionalists. They were both stars, and among the clinical teachers in Jefferson Medical College who had entertained the Clinical Congress a year before. One of them was John H. Gibbon, and the other "Jack" (John Chalmers) Da Costa.

John Gibbon stated that such an association as we proposed would establish a class distinction in America, in imitation of European methods that were distinctly undemocratic. Skillfully he developed this line of argument without indicating serious opposition.

Chairman Edward Martin, ever ready to create a harmless diversion, questioned the sincerity of the speaker's suggestions, and remarked that one could always get the opposite side of a controversy when John spoke. John was aroused, and became serious. The Chairman pursued him, good-naturedly, until the speaker very definitely announced that he was opposed to the whole plan, and was inclined to stay out of it.

The Chairman succeeded in steering the discussion away from this dangerous and influential opposition; but nearly every subsequent speaker referred to the Gibbon objection and endeavored to dispel the impression.

Then the other John, "Jack" Da Costa, in a very impressive manner

indicated that he was not inclined to belittle the criticism of the plan; that he, too, would think twice before he declared himself. This was alarming. I quietly called attention to the fact that we were not met to organize a College of Surgeons, and if those who were in doubt as to the wisdom of such an association could come to the Washington meeting and voice their progressive ideas, they would aid us in arriving at a plan that would be acceptable to the real surgeons of America.

The motion was put to a vote. The "Ayes" were generous in their response; some of the men remained silent; and at least two distinct "Nos" were audible. The Chairman cheerfully announced that the "Ayes" had it, and that the group would be represented in Washington on May 5, to discuss the advisability of establishing a College of Surgeons. In view of the elasticity of acceptances thus recorded, I did not pursue the high-pressure method of asking these surgeons to sign on the dotted line.

As I hurried away to catch the midnight train for New York, I noted several animated groups on the stairs that led from the drawing room. However, I had a very comforting feeling of success, as the meeting had been much more favorable than that of the previous evening.

Though I looked forward with dread to the important meeting called for the next afternoon in New York, I was still sufficiently optimistic to enjoy a night of undisturbed sleep.

V

The local committee in New York, which numbered among its members Drs. Joseph D. Bryant, Charles H. Peck, George E. Brewer, J. Bentley Squier, and others, had invited about one hundred men to meet me at the Academy of Medicine. Drs. Peck and Squier greeted me on the lower floor when I arrived, and we were slowly elevated to the large meeting room. No one was present. My companions excused themselves and proceeded to make some telephone calls. In a few minutes Dr. Bryant arrived. This doer of things looked about and uttered a few well-chosen remarks. Dollars to doughnuts, he said, not a dozen would show up. (He was almost right.)

Evidently sympathizing with me in my predicament, he asked a

few questions, said our plan was mighty good, and predicted success. His political sense (cultivated no doubt during fishing excursions with Grover Cleveland) led him to say: "Let us have a meeting now, approve the establishment of a College of Surgeons, and elect a local chairman and a secretary. This will put New York on record as being back of you." This was done. "Now let us adjourn. I have an engagement. Tomorrow morning you take a list of the men who were invited, call each absentee by telephone, tell him of our important meeting, say that those present favored your plan, and ask each one for his approval, if he wishes to be in on it," was the substance of his advice. And we adjourned.

The next morning, with the aid of a telephone operator, I carried out Dr. Bryant's suggestions. Every man who could be reached profusely regretted that he had been unable to meet with us, and promptly authorized me to place his name on the list. There was, to be exact, one man who said "No."

My standbys of the day before were delighted with the result. Dr. Bryant laughed heartily, and wished me well.

Armed with this valuable experience, I started for Boston in high spirits.

VI

Dr. Frederic J. Cotton, one of our national committee of twelve, had invited me to dine with him and his family in advance of the Boston get-together. Besides his wife and daughter, there were present Dean Edward H. Bradford of Harvard Medical School, and Dean Horace David Arnold of the Graduate School of Medicine. The business in hand was discussed by these masters, who were sympathetic to the movement.

After our delightful dinner, we adjourned to the Academy of Medicine, which was well filled by the men whom the local committee had invited. Chairman Cotton led me to the platform with the two deans and other members of the local committee. He announced the purpose of the meeting and asked me to tell them what it was all about. In concluding my brief summary I stated that I was authorized to invite the men present to meet the committee on organization in Washington on May 5. Might I take back to that committee an expression of their probable attendance?

Dr. Harvey Cushing and several others added some encouraging remarks and commended the fundamental ideals of the plan. The Chairman asked for a standing vote on a motion to accept the invitation to attend the Washington meeting. Every man stood in his place.

I acknowledged a vote of thanks, the Chairman handed me a list of the men who were present, and this business-like meeting was adjourned.

An informal gathering at a restaurant, one of Boston's best, ended my "Perfect Day."

I had absorbed a lot of valuable experience at these preliminary meetings, and I was greatly encouraged as I returned to Chicago to meet with a group of my fellow townsmen. Incidentally, this meeting, too, was satisfactory, notwithstanding it was in my home city.

VII

In the midst of our gratifying progress, there were rumblings of opposition. The Clinical Congress had demonstrated its strength in three meetings, and the proposal that a large democratic association of surgeons should be organized with the backing of the Congress disturbed the politicians. We all, physicians and surgeons, were accredited members of the American Medical Association, and most of the state journals in affiliation with the national body commented favorably. A few pointed out the futility of the new movement, and *The California State Journal of Medicine*, under the brilliant editorship of Philip Mills Jones, published some spectacular and vituperative editorials.

Realizing the necessity for action before the opposition entrenched itself, the committee of twelve (excepting one or two who had been influenced by our adversaries) authorized me to continue my survey.

VIII

The trek westward was begun the first of March. The Los Angeles meeting, under the sponsorship of Dr. Granville MacGowan, was highly successful, due in great part to the stimulating assistance of John B. Murphy, who happened to be in the city at the time.

Dr. Emmet Rixford, of San Francisco, had been selected as a member of our committee on organization, though he was not present at

the Clinical Congress in New York. I had received no word from him regarding plans for the proposed meeting in his city. After considerable difficulty, I reached him and learned that a meeting had been called.

At the appointed hour in the evening I presented myself at the address that had been given to me. I inquired of the several men who were present if there was to be a meeting of doctors. "Yes," they assured me, "at eight o'clock." (It was just eight o'clock.)

The conference room was long and narrow. The speaker's table and four chairs stood on a raised dais at the far end of the room, and at right angles to it was an oblong table with about twenty chairs on either side.

I did not recognize any of the early arrivals, and none of them seemed to know me. I took a seat to the right of the platform and waited. Someone sauntered up to me and asked if I was Dr. Martin. I admitted that I was. He introduced himself as he sat down beside me. He said he was sorry the "Big Four" were late. Having heard something of the "Big Four," I casually asked their names.

"Oh," he said, "I thought everybody knew the 'Big Four'—Emmet Rixford, Thomas W. Huntington, Stanley Stillman, and Harry M. Sherman."

The chairs near the entrance began to fill up with fine-looking men. I said I liked their looks, and my companion informed me that they were mostly the younger surgeons in the medical school. Then there was a stir and "Here are the Big Four," as they walked up to the platform and occupied the chairs back of the speaker's table. Rixford spoke to me as he passed, and Huntington and Stillman shook hands with me.

Without other ceremony, I was introduced as someone who had sought an opportunity to talk to them. As I got to my feet, I asked the privilege of qualifying as a witness, as was necessary when one appeared in court. I gave my name and address, and said that their Chairman, Dr. Rixford, and I were members of a committee of twelve, appointed by the Clinical Congress to consider the advisability of organizing a College of Surgeons for the United States and Canada, etc., etc. That I was in their midst to extend to them in behalf of that committee an invitation to attend the conference in Washington on May 5. Perhaps some of those present might desire to have a part

in the consideration of the proposed College. And I took my seat. I had a feeling that the young men at the far end of the table were interested.

There was profound silence. As the stillness became intolerable, Dr. Rixford rose and said if there were no questions or remarks he would declare the meeting adjourned. Meanwhile, he wished to remind the men present that Dr. Martin was the Editor of *Surgery, Gynecology and Obstetrics*, of which he had every reason to be proud. Thus the meeting came to an end.

I was eager to shake hands with Dr. Sherman, whom I had learned to admire by reputation. He was leaving the room, but I hurriedly intercepted him. "Aren't you Harry Sherman?"

"Yes. I am *Doctor* Sherman."

"May I shake hands with you? I have heard much about you from George Crile, George Brewer, and the Mayos, and I remember, that you were one of the first subscribers to my struggling Journal."

Seemingly I was keeping him from an important engagement. It was but a few minutes after nine o'clock, and most of the other members of the conference had gone. Without a word, this delightful gentleman turned and left me. Feeling like a criminal, even my sense of humor having forsaken me, I stepped out into the beautiful evening air. There wasn't a cab in sight. I started toward a lighted store-front, in search of a telephone. Out of the darkness two young men accosted me. I recognized them as among those who had occupied the far end of the table at the conference.

"We want to take you to your hotel. We have a car around the corner." It was a straw; I grasped it, and surrendered. They took me to a well-known restaurant and endeavored to resuscitate me. A table for six had been reserved in the middle of the room. Three others of our evening audience were already in their places.

My friends soon made me realize that they were not in accord with the conduct of the meeting. Nine-tenths of those present, they said, were much interested in the new movement, and they wanted assurance that they would not be eliminated from the Washington conference. They were encouraged when I said that invitations would be sent to all of those selected by the local committee, which of course included them. We had a nice evening.

IX

The Portland meeting was a real success. Robert C. Coffey supplied the dignity and the substance at a fine dinner, and Andrew C. Smith and Ernst A. Sommer the "spiritual" entertainment.

My experience in Seattle was equally happy. James B. Eagleson acted as host, and there was absolute unanimity among the younger men.

A very cordial reception was accorded to the project in western Canada. At Vancouver, Dr. Robert E. McKechnie acted as host, and "God Save the King" or "My Country 'Tis of Thee" (you took your choice) reminded us that we were brothers. Central Canada fell into line at Winnipeg, and I returned home by way of the "Twin Cities" —Minneapolis and St. Paul, and Kansas City and St. Louis. My game bag was filled to repletion. The Northwest, as always, had given its magnificent and loyal support.

However, our committee was aware that our proposed plan was being attacked bitterly, and that our antagonists hoped to embarrass us in our organization; but as we could not determine the extent of the opposition, we took every precaution to prevent the frustration of our desires.

X

On May fourth, Isabelle and I started for Washington over the Pennsylvania Railroad. In the evening we were surprised by a call from Dr. James E. Keefe, Dr. Murphy's lifelong friend. He said Murphy had retired as he was not feeling quite up to par, and had asked to see me. I found him in his compartment in a forward coach, with papers scattered all over the berth.

He greeted me and said, "Martin, some of these foolish editorials criticizing our movement insist that it is a Chicago affair, and they intimate that a plan is all cut and dried to elect me President. If there has been any such idea in your mind, you must forget it. With the exception of yourself, no Chicago man should be chosen as an officer at tomorrow's meeting. I am back of this great movement, but I can do much better work as a private. I got to worrying about it and that is why I sent for you."

I was pleased with his frank expression, and said: "Murphy, you have been a guiding spirit from the first. I, too, have read the criticisms and the amusing editorials, and I agree with you. Though all of the initiative came from Chicago and practically all of the preliminary work has been conducted there, still it would be good policy to have no officer from Chicago, and this applies also to myself."

His reply was positive: "Your last suggestion is impossible. You must direct the movement. I shall insist on that much, regardless of prejudice, as will every other member of our committee of twelve. Ever since you started *Surgery, Gynecology and Obstetrics* eight years ago, you have been working toward this end; you and your Journal have financed it, you have done the difficult foot work, and you must finish the job and administer the association after it is organized."

"All right. Whom would you suggest for President?"

"I think we both have the same man in mind, the one who by his election will throw a bomb into the camp of these objectors—John Finney, of Baltimore."

He was right about my candidate, and he was right about my views in regard to himself. Because of his interest, his ability, and his outstanding reputation, he should have been, to my mind, the first President of the American College of Surgeons. But it could not be.

I said, "I agree with you about Finney. As always, your judgment is to be depended upon. I know we have every detail worked out. We have an early meeting in the morning, and a great day is to follow. Good night!"

He had been worrying, fearing that my friendship for him would lead me to make a technical mistake. His frank statement relieved me, as I had realized, as he had, that Finney of all others was the man.

This was the first time we ever discussed anything that approached politics, and also the last. Murphy was too busy and too wise to waste his time over such matters. But he was a statesman, and a true friend and valuable counselor.

XI

The program for the great day had been carefully organized. We were to have three formal sessions: First, a meeting of our committee of twelve at ten o'clock in the morning; a caucus of our Committee

of Committees at two o'clock in the afternoon—a rehearsal with about fifty accredited friends and staunch supporters; and the actual conference on organization was scheduled to be held at eight o'clock in the evening.

Our train was fifteen minutes late. Fortunately, we had breakfasted, for as we entered the New Willard, an impatient committee met us at the door. One of my friends greeted me with: "You know, Martin, there is a well organized opposition to this College. Your plans have had too much publicity." Although somewhat disappointed to find evidence of weakness among my committee, I said that there could not be too much publicity if our motives and plans were sound; and if they were not sound, they deserved to fail.

Within ten minutes we were in session. Obviously, it was up to me to convince the committee that the program of organization was logical. Before me, watchfully waiting, were the following leaders of American surgery, ten in number: Edward Martin, Philadelphia; John B. Murphy, Chicago; Rudolph Matas, New Orleans; Albert J. Ochsner, Chicago; Charles H. Mayo, Rochester, Minnesota; Frederic J. Cotton, Boston; George Emerson Brewer, New York; John M. T. Finney, Baltimore; Walter W. Chipman, Montreal; George W. Crile, Cleveland. Emmet Rixford of San Francisco had not replied, and was absent.

I unpacked my portfolio and proceeded to reveal my plans. As I finished reading the proposed By-Laws, prepared with the aid of the best legal talent obtainable, the group before me settled back comfortably.

My next document was the charter that had been secured from the State of Illinois. I reminded the committee that the American Medical Association had an Illinois charter, which had caused them some embarrassment when they attempted to explain why certain annual meetings were held beyond the limits of that State. Since I had been informed that our opponents were liable to spring an opinion that would make it appear that our charter was illegal, I had secured an opinion from a federal judge who ranked the one consulted by the opposition. My informant definitely declared that our charter was legal and proper, an opinion that could, if necessary, be presented at our organization meeting.

For two hours we considered the By-Laws, order of business, and various resolutions that I had proposed for presentation at the evening meeting, and with minor changes they were approved.

Then, with all of the seriousness that I could bring to bear, I outlined some phases of the prevailing opposition to any kind of a college of surgeons. The leaders of the national societies who were to meet in Washington later that week felt that we were about to organize a strong competitor; the officials and political conservators of our national democratic Association, to which we all belonged and owed allegiance, had somewhat the same feeling, as did also the smaller and larger national societies of specialists. But, I insisted, we had no desire to compete with any of them. Fundamentally, from a professional standpoint, it was our purpose to develop a great clinical society; and from an ideal standpoint, to elevate the standard of surgery and to take the public into our confidence.

I asked each man, individually, if he believed this to be true, and if he was convinced that the plan we had just approved was the best means of accomplishing the purposes we had in mind. All acquiesced.

Five hundred surgeons of the North American continent were to appear at our evening meeting, and the great majority of them were in complete sympathy with the project. After all of our careful work to build a program that was satisfactory to ourselves, had we the courage to put it through, in spite of the minority opposition? I said I believed we had. We needed, however, a firm, judicial, and diplomatic chairman who would not take "No" for an answer; and we, as individual members of the committee, had to support such a chairman to the last ditch. Obviously, that chairman should be a member of the committee on organization; and we would count upon him to take the gavel, call the meeting to order, and proceed, in spite of obstacles, with the order of business that we had approved.

Every member of the committee looked askance, crouched down in his chair, and said nothing.

"Gentlemen," I said, "I have a candidate, and I believe when I mention him all will agree that he is the proper man—Edward Martin of Philadelphia."

Joy was unconfined as these dignified surgeons shouted their approval with boyish enthusiasm.

Edward, seemingly never abashed said: "Remember, if I accept, *I will be the Chairman* and command your support, because this program must not fail of approval."

Our conference was adjourned.

I then discussed with Drs. Crile, Mayo, and Edward Martin the slate for the Nominating Committee. They promptly asked me whom I had in mind. I said that I had conferred with Dr. Murphy and discussed the subject with several members of our committee; that the man who would meet the applause of every surgeon from all standpoints—professionally, culturally, educationally, and geographically—was Dr. John M. T. Finney of Johns Hopkins University, Baltimore. They all agreed enthusiastically. Immediately they named me as Secretary-General and Treasurer. At my suggestion that the two offices should not be combined, though the Treasurer must be in Chicago, they named Albert J. Ochsner, a member of our committee, and one whom every surgeon in America knew and respected. We then selected Dr. Walter W. Chipman, of Montreal, and Dr. Rudolph Matas, of New Orleans, for the two vice-presidencies, and included among the proposed fifteen members of the Board of Regents all but one of our committee of twelve.

Authorized to select a nominating committee of three, and to transmit to them our recommendations, I chose for that important feature of our program Dr. Truman W. Brophy, of Chicago, Chairman; Dr. Richard R. Smith, of Grand Rapids; and Dr. Henry P. Newman, of San Diego.

XII

At two o'clock our Committee of Committees convened to discuss our problems and to plan methods of successfully combating the opposition which threatened to frustrate our well developed plans.

Dr. Edward Martin presided. Our program was presented, considered, and enthusiastically approved. We rehearsed the procedure that was to be followed at the formal conference, and the Chairman asked everyone who approved of the program to be on hand to aid in meeting all objections and parliamentary difficulties.

After the morning and afternoon sessions, I was convinced that we had a loyal group of supporters who were determined that the plan must succeed. My anxiety was definitely abated—so much so that I wondered if over-confidence might be our undoing.

XIII

At eight o'clock in the evening Dr. Edward Martin and Dr. Charles H. Mayo appeared in the ballroom of the New Willard. Before them were four hundred and fifty surgeons who had accepted our invitation.

On the minute, Dr. Mayo rapped for order and in behalf of the committee on organization introduced the Chairman of the meeting, Edward Martin.

There was perfunctory applause, as the Chairman promptly stepped forward to announce that a plan to create a college of surgeons—a plan which had met the approval of the committee on organization appointed by the Clinical Congress in November, 1912—would be presented by Dr. Franklin H. Martin, who, he wished it definitely understood, was no relation of his, but one who had served as the "foot worker" in behalf of the committee of twelve.

Thus introduced, I proceeded, first to read our charter, and then to present the By-Laws. Article II was greeted with approval. It read:

"II. OBJECT. The object of the College shall be to elevate the standard of surgery, to establish a standard of competency and of character for practitioners of surgery, to provide a method of granting fellowships in the organization, and to educate the public and the profession to understand that the practice of surgery calls for special training, and that the surgeon elected to fellowship in this College has had such training and is properly qualified to practice surgery."

Article IV also received generous applause that lasted for a full minute:

"IV. BOARD OF GOVERNORS. 1. The original Board of Governors shall consist of the surgeons invited by the Organization Committee to serve as founders of the College, who have qualified as Fellows. The members of this first Board of Governors shall also be known as the Founders of the American College of Surgeons.

"2. The original Board of Governors shall be divided by lot into three classes to serve one, two, and three years, respectively. At the annual meeting in 1914, and at the annual meeting in each year thereafter, the Fellows of the College shall elect (in a manner to be determined

by the Board of Regents) fifty surgeons from among the Fellows of the College to membership on the Board of Governors, each to serve for a term of three years; thirty of these members are to be elected from a list of nominations, consisting of three members each, nominated by the following fifteen* surgical associations and societies of North America, and one each from the United States Army and from the United States Navy:

1. American Surgical Association.
2. Surgical Section of the American Medical Association.
3. Section on Obstetrics, Gynecology, and Abdominal Surgery of the American Medical Association.
4. General Surgical Division of the Clinical Congress of Surgeons of North America.
5. Division of Surgical Specialties of the Clinical Congress of Surgeons of North America.
6. American Gynecological Society.
7. Southern Surgical and Gynecological Association.
8. Western Surgical Association.
9. Section on Surgery of the Canadian Medical Association.
10. American Association of Obstetricians and Gynecologists.
11. American Orthopedic Association.
12. American Association of Genito-Urinary Surgeons.
13. American Laryngological Association.
14. American Ophthalmological Society.
15. American Otological Society.

Twenty members shall be elected at large to represent surgeons of North America not affiliated with the above societies or associations. In case of failure of any of the above-named organizations to make its quota of nominations, or in case of duplication of nominees, the Board of Regents shall nominate members from among the Fellows at large for the vacancies so caused in the list of nominees. The Board of Regents shall in the same manner fill all vacancies in the current membership of the Board of Governors due to death, resignation, or other causes."

Fifteen national societies were thus given authority to nominate each year thirty out of fifty members of the Board of Governors. This settled at once the critical point of broad administration, and nullified the accusation of self-appointed authority. Seven of the fifteen organizations named were affiliated with the Congress of Physicians and Surgeons that was to meet in Washington later in the week.

*Increased to sixteen with the addition of the American Institute of Homeopathy.

Article VI was the next section to create interest. It called for fifteen Regents, fourteen of whom were to be elected by the Board of Governors from among its own membership, and one by the general assembly—the President.

The other Articles of the By-Laws were read: VII, Fellows; VIII, Fees; IX, Publications; and X, Expulsion. There were several simultaneous motions to adopt the By-Laws as read, and a dozen or more seconds. The Chairman asked if anyone wished to discuss the motion. There were calls for "Question! Question!" and the By-Laws were unanimously adopted.

The Chairman recognized Dr. Truman W. Brophy, Chairman of the Nominating Committee. Great interest was manifested. The committee of twelve had done well to present to the assembly, first, the fundamental plan of organization as proposed in the By-Laws; and, second, the suggested administrators. These being satisfactory, the rest of the way would be easy.

Dr. Brophy reported: "For President, the Nominating Committee proposes John M. T. Finney, of Johns Hopkins University, Baltimore." (This cleared the skies. Chicago was *not* to receive that honor!) "For Vice-Presidents, Walter W. Chipman, McGill University, Montreal; and Rudolph Matas, Tulane University, New Orleans; Secretary-General, Franklin H. Martin, Post-Graduate School, Chicago; Treasurer, Albert J. Ochsner, University of Illinois, Chicago."

The tense and silent four hundred and fifty created an enthusiastic demonstration, rose to their feet, cheered, and unanimously adopted the report. The Chairman rapped for order, adjourned the meeting of the organization, declared the Board of Governors in session, and asked the Nominating Committee to complete its report.

Dr. Brophy continued: "For the Board of Regents:

George E. Armstrong, Montreal	Edward Martin, Philadelphia
George E. Brewer, New York	Franklin H. Martin, Chicago
Herbert A. Bruce, Toronto	Charles H. Mayo, Rochester
Frederic J. Cotton, Boston	Robert E. McKechnie, Vancouver
George W. Crile, Cleveland	John B. Murphy, Chicago
John M. T. Finney, Baltimore	Albert J. Ochsner, Chicago
William D. Haggard, Nashville	Harry M. Sherman, San Francisco

Charles F. Stokes, Washington."

There was a profusion of motions, authorizing the Secretary of the meeting to cast a unanimous ballot for the election of the nominees named. Cheering seconds were offered. The "Ayes" were unanimous. A genuine and hearty ovation greeted the Chairman's announcement that the report was adopted.

The silent group in the center of the hall—what could they find to obstruct?

At this point a dignified, grey-haired gentleman rose at the right of the hall. Edward Martin called him by name, and asked him to state his purpose in addressing the chair.

There emanated from that respected dean of surgery in classic Indiana, Dr. Miles F. Porter, a plea for a declaration against the division of fees, the paying of commissions for surgical work, and buying and selling of patients. This was instantly backed by Dr. William F. Metcalf of Detroit. It was a dramatic moment! The challenge was met with enthusiasm by the surgeons present, and the declaration adopted as a cardinal principle of the College.

The first official gun had been fired by the new College against an abomination in the economics of medicine—fee division.

There was an anticlimax as a volley of questions was directed to the Chairman: "When will the first session of the College be held?" "Is the committee of twelve dismissed, and will the newly elected Board of Regents take charge, inasmuch as it contains practically every member of the committee of twelve?" etc., etc.

These queries were settled by a motion that all matters of policy, finances, further organization and administration be relegated to the Board of Regents, with power to act. It was, however, generally understood that the first Convocation of the College of Surgeons was to be held on November 13, 1913, during the annual Clinical Congress in Chicago.

Edward Martin raised the gavel. "If there is no further business before the assembly, I declare the meeting adjourned." The American College of Surgeons was an assured fact!

XIV

There was a rush to the platform and a shower of congratulations. I was caught in the arms of a gentleman whom I had met but once

—in San Francisco a month before. He had just been elected a member of the Board of Regents, Dr. Harry Sherman. With emotion, he grasped my hand, and earnestly said he owed me an apology. Guided by misinformation and misunderstanding, he had traveled all over the country, using his influence in opposition to the proposed College. Now he was either hypnotized, or convinced by the remarkable presentation he had witnessed; at any rate, he was with us from this time on, and would take off his coat and help with all of his power. Could he call upon me in Chicago? I smiled forgiveness, and cordially urged him to visit me.

Many kind things were said to the members of our committee by hitherto lukewarm supporters who, too, were "either hypnotized or convinced," and who ever afterwards remained staunch friends.

In my exultation, I suggested some portraits of our official Board. Clinedinst, the photographer, entered into the spirit of the quest, and our combined maneuvers eventually met with success.

We made history on May 5, 1913!

31

AMERICAN COLLEGE OF SURGEONS—AN ACCOMPLISHED FACT

I. The Division of Fees—The Oath. II. First Meeting of Board of Regents. III. Personal Inspection of Headquarters Abroad. IV. Circumstances Change Viewpoints. V. Academic Costume. VI. Our Heraldic Experiment Is Rehearsed. VII. November 13, 1913—First Convocation. VIII. War Session—1917.

I

THE problem of combating the division of fees had become an obsession with many of our Founders. Innumerable letters recommended that it should be the principal object of the College, and that we should virtually "wash our dirty linen in public." Each correspondent suggested some ingenious method of handling the subject. Naturally, those who were opposed to our ideals would seize upon this intensive propaganda to place us in a ridiculous position.

I was disturbed, for my plan contemplated a comprehensive association that would "elevate the standard of surgery . . . establish a standard of competency and of character for practitioners of surgery, . . . provide a method of granting fellowships in the organization, and . . . educate the public and the profession to understand that the practice of surgery calls for special training, and that the surgeon elected to fellowship in this College has had such training and is properly qualified to practice surgery."

We had many informal discussions concerning the matter in Chicago, in which Dr. Charles Mayo, Dr. Crile, and others joined. And when it was seriously proposed that each prospective Fellow should sign several pledges against fee splitting as the outstanding qualification for Fellowship, I, myself, entered the field and prepared a tentative Fellowship Pledge, all-embracing in nature, to be presented,



MEMBERS OF ORIGINAL BOARD OF REGENTS, AMERICAN COLLEGE OF SURGEONS, 1913



MEMBERS OF ORIGINAL BOARD OF REGENTS, AMERICAN COLLEGE OF SURGEONS, 1913

if necessary, at the first formal meeting of our Regents within the week. Dr. Ochsner was much aroused and most insistent that this was our one object of importance, and he, too, had worked out a declaration against the evil that seemingly was uppermost in the minds of all of us.

II

An earnest and enthusiastic demeanor pervaded the first formal conference of the Regents, which was held in Minneapolis on June 17, 1913, during the annual meeting of the American Medical Association. There were present: Drs. Sherman, Ochsner, Murphy, Stokes, Crile, Cotton, Haggard, and myself.

We met early in the evening and carried on well into the night. Application and reference forms were considered and approved, and the matter of selecting Fellows other than the Founders was referred to a Committee on Credentials, with Dr. Ochsner as Chairman and the Secretary-General and President as ex-officio members.

The principal discussion of the evening bore upon the omnipresent question of fee splitting. It was long and earnest. Any suggestion that we had other important business to transact did not command attention.

Dr. Ochsner proposed for the signature of each candidate a comprehensive and all-inclusive declaration against the division of fees. It read as follows:

"I hereby promise on my honor as a gentleman that I will not, so long as I am a Fellow of the American College of Surgeons, practice division of fees in any form. Neither will I make joint fees with physicians or surgeons referring patients to me for operation or consultation. Neither will I, in any way, directly or indirectly, compensate anyone for referring patients to me, nor will I utilize any man as an assistant, as a subterfuge for this purpose."

The Fellowship Oath submitted by me was then presented. [Dr. Ochsner's declaration and this Oath, with minor changes effected during subsequent years, have been signed by every Fellow.]

THE OATH

"Recognizing that the American College of Surgeons seeks to develop, exemplify, and enforce the highest traditions of our calling, I hereby pledge myself, as a condition of Fellowship in the College, to live in strict accord-

ance with all its principles, declarations, and regulations. In particular, I pledge myself to pursue the practice of surgery with thorough self-restraint and to place the welfare of my patients above all else; to advance constantly in knowledge by the study of surgical literature, the instruction of eminent teachers, interchange of opinion among associates, and attendance on the important societies and clinics; to regard scrupulously the interests of my professional brothers and seek their counsel when in doubt of my own judgment; to render willing help to my colleagues and to give freely my services to the needy. Moreover, I pledge myself, so far as I am able, to avoid the sins of selfishness; to shun unwarranted publicity, dishonest money-seeking, and commercialism as disgraceful to our profession; to refuse utterly all money trades with consultants, practitioners or others; to teach the patient his financial duty to the physician and to expect the practitioner to obtain his compensation directly from the patient; to make my fees commensurate with the service rendered and with the patient's rights; and to avoid discrediting my associates by taking unwarranted compensation. Finally, I pledge myself to coöperate in advancing and extending, by every lawful means within my power, the influence of the American College of Surgeons."

The practice of the division of fees is now prohibited by law in many States. Where it exists under any guise whatever, it is in reality the buying and selling of people who are ill. The consequences of the division of fees are, first, incompetent medical and surgical service; second, unnecessary surgical operations; and, third, the deadening of scientific incentive in the profession. The fact is unchallenged that no intelligent community would tolerate this practice in its midst if the community were aware of the practice and of its significance.

Before we adjourned, someone bethought himself of the expense to which the Secretary-General had been subjected in the preliminary work. I had been too busy endeavoring to accomplish the desired end to give this delicate subject even a passing thought, and I protested that it was all in the past. However, Dr. Mayo insisted that it be made a matter of record to be computed and paid.

III

The Seventeenth International Medical Congress, under the presidency of Sir William Osler, was to be held in London August 6 to 12, 1913. I decided to attend this Congress, and, if possible, the function of the Royal College of Surgeons at which they were to confer Honorary Fellowships upon four American surgeons of international fame

—Drs. Cushing, Murphy, W. J. Mayo, and Crile. With the aid of these four gentlemen, I hoped to persuade Sir Rickman Godlee, President of the Royal College and a nephew of Lord Lister, to deliver the dedicatory address at the first Convocation of our new College in Chicago on November 13, a plan which had the wholehearted approval of my fellow Regents.

During the preceding few months, I had tentatively broached the subject of an academic gown to be worn at our Convocations and other formal meetings of the American College of Surgeons. But few of our own universities had at that time adopted the academic costume. The Regents were most discouraging in their responses to my suggestion. Dr. Crile was uncompromisingly opposed to anything so undemocratic and utterly ridiculous; and Dr. Matas, usually politeness itself, was almost ruthless in his criticism. Dr. Murphy was not especially enthusiastic, and Dr. Ochsner feared criticism. I would not abandon the suggestion, nor would I risk bringing it before our formal meetings until we had considered and decided more important fundamentals.

Isabelle and I arrived in London the end of July, and I took early occasion to meet Sir Rickman Godlee. The four Americans who were to receive Honorary Fellowships at his hands had prepared him for the invitation, and he was very cordial and sympathetic to it. He could not, however, accept the assignment without the authorization of the Council of his College. We sought out the individual members of his Council and had their assurance that our request would no doubt be granted at an early formal meeting. Sir Rickman and Lady Godlee were enthusiastic over the prospect of becoming the guests of the American College of Surgeons, and we repeatedly discussed details of the visit.

IV

It was difficult for outsiders to secure admission to the ceremony of conferring of Honorary Fellowships by the Royal College. The wives of the recipients finally gained entrance through the request of Mrs. Murphy; and Isabelle and I, because of my official connection with the American College of Surgeons, at the request of my colleagues.

As I stood in the Assembly Hall of the College, awaiting the ap-

pointed hour, whom should I see entering the hall but George W. Crile himself, bedecked in the gorgeous regalia of the Royal College of Surgeons! He raised his hand in protest as I accosted him and asked how he could ever bring himself to don such an "undemocratic and utterly ridiculous" costume. He laughed and mumbled something about relegating me to a warmer climate! I took occasion to remind two others of their recent prejudice to academic costume, and they, too, told me to go to.

The next day I called upon Messrs. Ede and Ravenscroft, official gownmakers to His Majesty, the King. After a searching investigation, this supreme authority designed a gown for the prospective Fellows of our American College. This I surreptitiously stowed away in my baggage.

Before leaving London, Isabelle and I had a week-end at Coombe End Farm, Whitchurch, the summer home of the Godlees. We spent several delightful days motoring in the country about Oxford, punting on the Thames that flows within sight of Coombe End, examining the operations on the farm, walking about the country, and in social intercourse in and about the cozy home. Our visit was a joy, and our first intimate glimpse of rural England.

The following Monday, Sir Rickman took me to the Royal College of Surgeons in Lincoln's Inn Fields, where we selected the gown that would be worn by him at the Convocation of our College on the occasion of his visit to Chicago. Literally, I was saturating myself with the atmosphere and traditions of this great English institution that had had its beginning six centuries before.

V

On October ninth we held the second meeting of the Regents of the College at the Union League Club, Chicago. The proposed program for our forthcoming Convocation was the principal consideration. Crile, Murphy, Mayo, and I were prepared to give authoritative information about the conduct of Convocations, as the result of our recent visit to headquarters, and we were determined to maintain the standard of the impressive ceremony that we had witnessed in London.

Just before we adjourned at twilight, the lights were turned on in the room we occupied and I informed the Regents that I wished them

to pass on the Fellowship gown that I had selected. There was a surprise in store for those opposed to such "folderol"!

The folding doors were thrown back and three attractive young Adonises calmly entered, each garbed in a duplicate of the gown that had been executed in London. The gowns consisted of a body of navy blue mohair, with a facing of scarlet velvet five inches wide extending around the neck and down each side of the front. They were well set off by the young men; the effect was artistic and modest, and the colors pleasing.

In spite of the preliminary opposition, there was now not one protest. The gowns sold themselves, the critical, conservative audience gave immediate and vociferous approval, and the academic costume was adopted for use by the Fellows of the American College of Surgeons.

VI

The first Convocation of the American College of Surgeons was scheduled for the evening of November 13, 1913 (note the thirteens), during the fourth annual Clinical Congress.

Sir Rickman and Lady Godlee were official guests of the Congress, and personal house guests of Dr. and Mrs. John B. Murphy. I outlined to Sir Rickman every detail of our plans, and he was abundantly satisfied.

At a meeting of the Regents, during the afternoon of the eventful day, all details were carefully rehearsed. Mr. A. D. Ballou, the Manager of the Congress, and Mrs. M. T. Farrow, my Secretary, sat in with us. Dr. Finney, our President, who was familiar with the yearly formalities at Princeton, had been frankly anxious about the arrangements of his Western colleagues. Eager to secure his approval, painstakingly I had explained every detail of our plans—the formal dinner in honor of Sir Rickman, to be attended by the Regents and distinguished guests; the procession and platform arrangements for the Regents and guests; and the procession of incoming Fellows (nine hundred of whom had secured gowns). There was no change that he could suggest.

All in all, it was a hectic day for the amateurs as they consummated plans for an heraldic experiment in "undemocratic proceedings."

Regents and honored guests, led by Sir Rickman Godlee, in the gorgeous presidential robe of the Royal College of Surgeons of England, linked arm in arm with our own President, Dr. John M. T. Finney. The audience rose as the procession proceeded down the central aisle to the large platform, and remained standing as "God Save the King" or "America" was rendered by the orchestra, thus honoring our guest from England, and our Fellows from Canada and the United States.

The Invocation was spoken by Rev. Dr. J. G. K. McClure.

It was an impressive sight—the hall with its brilliant lights and decorations, the boxes with beautiful women in evening dress, the body of the house filled with the expectant candidates in robes of scarlet and blue, the platform with the Regents and honored guests in academic dress, and in the center of all, the orator of the evening from overseas, seated close to our Stars and Stripes and his own Union Jack.

It was the first time that such a scene had been enacted in democratic America, and it was in every way appropriate. No man who has been a part of it has held ridicule in his soul.

The candidates stood as President Finney, by and with the authority vested in him by the Regents of the College, received them into Fellowship. He then conferred Honorary Fellowships upon Sir Rickman Godlee of London, William Stewart Halsted of Baltimore, William Williams Keen of Philadelphia, John Collins Warren of Boston, and Robert F. Weir of New York.

When the President announced the dedicatory address, there was prolonged applause, as the audience rose to greet Sir Rickman Godlee. He delivered a scholarly address, and presented greetings from the Royal College of Surgeons of England in the form of an illuminated parchment.

The presidential address pronounced the gospel of the new organization, and predicted that "what is consummated here tonight is destined to produce a deep and lasting impression upon medical progress . . . indirectly the world over."

The assembly stood at attention as the strains of the "Star Spangled Banner" burst forth, followed by the Recessional during which the Regents filed from the platform. There was a break of the lines, and

an informal reception occupied a crowded hour. Everyone wanted to greet our English guest, and to congratulate the officers of the College.

True, the great experiment had caused many sleepless nights, but now it was successfully consummated, and some of us went home with our minds and bodies filled with rejoicing.

VIII

An important war session of the Clinical Congress of Surgeons of North America and the American College of Surgeons was scheduled for Chicago during the week of October 21, 1917, a joint session.* Dr. George W. Crile, the President, was given leave of absence by the War Department from his service in France. Sir Berkeley Moynihan† at my request had been sent over by his government to aid us in the enrollment of medical officers. He was serving as a Colonel in the British forces, and had accepted an invitation to attend the Clinical Congress and the sessions of the College. Colonel T. H. Goodwin, of the British Army,‡ and Major C. U. Dercle, of the French Army, both serving as liaison officers in Surgeon General Gorgas' office, were likewise our guests.

For six months as Secretary General of the Congress and College, in consultation with our Regents and administrators I had planned to utilize this great medical organization for a war meeting to demonstrate our further need for medical officers. Through our authorities in Washington I had succeeded in having leave granted to the Surgeons General of our Army, Navy, and Public Health Service, in order that they might attend these meetings.

Six weeks in advance, I asked Surgeon General Braisted to accompany me to the office of the Secretary of the Navy, as I wished to aid him in gaining the consent of Secretary Josephus Daniels to grant leave for the forthcoming meeting. The Secretary greeted us in his usual friendly manner, and I briefly told of my mission.

Secretary Daniels immediately replied: "Why, of course. Why don't you invite me? I have desired for some time to visit the Great Lakes Training Station. This will give me an excuse, and definitely fix the

*See page 377.

†Now Lord Moynihan of Leeds.

‡Now Governor General of Queensland, Australia.

date." It goes without saying that Mr. Daniels then and there was extended an invitation to become our distinguished guest for the week of October 21, and to make a talk at our opening "presidential meeting." He requested Surgeon General Braisted to accompany him.

During each annual gathering of the American College of Surgeons, the Board of Regents meets on Tuesday morning. Because of illness, I was unable to attend the Regents' meeting in 1917. At about two o'clock my room in the Congress Hotel was invaded by three members who had attended the morning meeting of the Regents: William Mayo, George Crile, and Edward Martin. It was apparent that my callers were somewhat excited. There was something in the air that had aroused the indignation of these three doers of things.

There were no inquiries as to my condition as a sick man convalescing from pneumonia (who had been enjoined by these same men not to receive visitors, and to avoid excitement of any kind!). Dr. Mayo, without preliminaries, informed me that at the Regents' meeting they had decided that I was to assume charge of the College on a salary basis.

Since the organization of the College in 1913, and for three years before that in directing the Clinical Congress, I had declined any compensation in my administrative conduct of the two organizations. I was particularly interested in a large and lucrative practice of surgery, and I was in no sense desirous of changing my whole life's work and relinquishing certain fixed obligations. I shrank, too, from accepting remuneration for my services to the College which I had always considered a gratuitous service to my profession.

I begged them not to ask me to make any important decision while in my weak condition. I was not equal to it. In the meantime, if they expected to deal with me, the disposition of my future activities must be left in my hands. My friends left me, saying they would see me later that day or on the following morning, and in the meantime they adjured me to "be prepared to act."

I got the most sympathetic advice and comfort from my conservative wife, as usual; and she especially enjoined me to keep cool and keep my temper. "These men are your best friends," said she, "and they are thoroughly in earnest in their desire to help you. You will

recall the advice of my father—'If I were in your place, I would just hold.'" The hours of wakefulness that alternated with my disturbed and interrupted sleep that night were employed in preparing the reply that would be expected from me in the morning.

Early appeared the visitors! "Well, what about it?" were the first words spoken, after they were assured that I was still alive.

I replied: "You ask me to give up my professional work that I have built up during thirty-five years. You ask me to do this, when no salary that I would allow the College to pay would equal one-third of my normal earnings. You ask me to sacrifice my reputation as a surgeon and teacher. You ask me to change my career in the productive and active years of my life, and accept a full-time job in something in which I may absolutely fail. I have already left the practice of my profession, and for one year have been on trial in a stupendous job of organization and administration as a member of the Advisory Commission of the Council of National Defense in the war—all the time longing to get back to my surgery. Think, fellows, what this would mean to any one of you, to change your life's work. No one knows how long this war job will last, and I cannot abandon it voluntarily.

"*First*, you ask me to direct the College as a side line to my present job. That I will not do without full control of my associates and other helpers.

"*Second*, you ask me to accept a full-time position with the College as its chief administrative officer, with the title of Director General. For the time I am in the service of the war I will give as much attention to the affairs of the College as I am able while not neglecting my present paramount job. When the war is over, I shall want to make any adjustment that may seem best."

To my surprise, these tentative statements were received as definite and conclusive proposals. "All right, that is agreed upon," commented the spokesman. The promptness with which they accepted my proposal fairly took my breath.

These three of my best friends I am now convinced were primarily interested in the College, and I have never regretted my final yielding to their insistent plan.

32

AMERICAN COLLEGE OF SURGEONS—TODAY

I. Purposes of the College. II. Requirements for Admission. III. Junior Candidate Group. IV. Judiciary Committees. V. Standardization of Hospitals. VI. Approval of Medical, Surgical and Hospital Equipment, Instruments and Supplies. VII. Rev. C. B. Moulinier, S.J. VIII. Health Inventoriums. IX. Adequate Medical Care to the Community. X. Sectional Meetings. XI. Clinical Research. XII. Registry of Bone Sarcoma. XIII. Treatment of Malignant Diseases. XIV. Treatment of Fractures. XV. Industrial Medicine and Traumatic Surgery. XVI. Clinical Laboratories. XVII. Literary Research. XVIII. Medical Motion Picture Films. XIX. Inter-American Affiliation. XX. Australia and New Zealand. XXI. Permanent Home. XXII. Financial Stability. XXIII. Keystones. XXIV. Administrative Achievements. XXV. Emblem of the College. XXVI. The Lister Mallet. XXVII. The Great Mace.

I

The purposes of the American College of Surgeons are concerned directly with matters of character and of training, with the betterment of hospitals and of the teaching facilities of medical schools, with practical research, with laws which relate to medical practice and privilege, and with an unselfish protection of the public from incompetent service.

The College aims to include within its Fellowship those surgeons who are competent in the art and technique of surgery. Progress has been possible because the impetus of the College springs from its own membership, an impetus which necessarily implies reform.

II

Fiction is interesting, a glib tongue at times entertaining, but an individual's worth is shown by the record of his work.

Each candidate for Fellowship in the American College of Surgeons must furnish positive evidence of preliminary primary and college

training; a four- or five-year course in an approved medical school; a degree of *Doctor of Medicine;* a license to practice in his community; one to three years of training in a good hospital, or its equivalent; satisfactory assistantship in surgical service; at least five to eight years of medical and surgical practice; fifty to eighty per cent of his work (varying according to the size of his community) devoted to surgery or a surgical specialty. Above all, the candidate must be morally, ethically, and professionally acceptable. He must sign a Fellowship Pledge* which declares that he does not obtain his patients by paying commissions, or through other unworthy commercial transactions. His moral, ethical, and professional fitness is determined by reports of surgeons whose names are submitted by the candidate himself, and by his respective State or Provincial Credentials Committee, which acts as a preliminary court, and makes its recommendation upon the evidence as presented, together with such facts concerning the candidate as may be in the possession of the individual members of the committee because of personal acquaintance. If the candidate is approved by his respective Credentials Committee, as practical evidence of his diagnostic, scientific, and professional judgment and his surgical qualifications, he must submit to the College for approval fifty complete case records and fifty case records in abstract of major operations which he himself has performed.† These case records are passed upon by a Committee on History Reviews.

All accumulated evidence in reference to each candidate that has come into the executive offices is finally brought before the Central Committee on Credentials, which, as the higher court, peruses in detail the credentials of each candidate, sifts all of the evidence on file in regard to his qualifications, including the reports of the State or Provincial Credentials Committee and the Committee on History Reviews, and makes its recommendation to the Board of Regents. After the candidate has passed successfully all of the requirements under the careful surveillance of the College, he is notified of his acceptance and sent instructions in regard to further details of the formal conferring of his Fellowship at the annual Convocation of the College.

Ophthalmologists and oto-laryngologists, obstetricians and gynecologists, who have been certificated by the American Board for Ophthalmic Examinations, the American Board of Oto-Laryngology, or the American Board of Obstetrics and Gynecology, and who have been recommended by their respective State or Provincial Credentials Committees, are required to submit only one-half of the usual number of case records. This does not imply that the College declines to admit to Fellowship members of these specialties who have not been certificated by a special board.

*See pages 323–4.
†A requirement since 1915.

An applicant who can meet all of the stipulated requirements is fitted to do actual surgery, whereas the ordinary written and quiz examination, which is accepted as evidence of eligibility for fellowship in the European colleges of surgeons, would prove only his theoretical knowledge of the subject.

The Editorial Board of *Surgery, Gynecology and Obstetrics* is so heartily in sympathy with the program of the College and its demands that all patients should receive careful study, as evidenced by adequate records, that in 1930 the privilege was asked of the Board of Regents to present an annual prize in the form of a life fellowship in the American College of Surgeons for the most acceptable set of case records presented by the candidates during the preceding year. The prize consists of Five Hundred Dollars, invested in the name of the successful candidate for life dues in the College, and is accompanied by an appropriately engraved certificate of appreciation on behalf of the donor, *Surgery, Gynecology and Obstetrics.*

The prize winners are as follows:

1930—James T. Nix, New Orleans, Louisiana
1931—H. H. Ogilvie, San Antonio, Texas
1932—Clyde H. Frederickson, Great Falls, Montana
1933—Sobisca S. Hall, Fairmont, West Virginia

III

"Train up a child in the way he should go, and when he is old he will not depart from it."

The Junior Candidate Group was established as a means of imparting the ideals of the College to the younger men of the profession during the earlier years of their development, when professional and hospital alliances are established—dating from graduation to the time of eligibility for fellowship in the College—a suggestion first brought to

the attention of the Regents in 1923, by Dr. John Wesley Long, of North Carolina.

Applicants for the Junior Candidate Group, at the beginning of their candidacy, must file a formal application and sign the same declaration against the division of fees as is required of all Fellows of the College. Every candidate who is properly recommended, and approved by his respective State or Provincial Credentials Committee, is placed on a probationary list as early as two years after graduation with the understanding that he shall be acceptable as a Fellow not earlier than seven years after graduation, and that he shall then be subjected to all existing requirements for full fellowship.

Members of the Junior Candidate Group are eligible to attend the annual and sectional meetings of the Clinical Congress of the American College of Surgeons. In their private and professional life they are enjoined to carry out all of the requirements of the College with the same degree of fidelity as is expected of the Fellows of the College.

This plan harks back to the days when the student of medicine began his studies under a preceptor. It has forged another strong link in the development of practical, scientific surgery, and in our campaign against unworthy financial practices.

IV

Hold fast to that which is good, and cast out that which is evil.

In 1923, a welcome suggestion came from two widely separated sources: the Executive Committee of the Indiana State Section, and the Credentials Committee of Brooklyn. Each of these groups asked that a Judiciary Committee be appointed for every important community, to which all questions of personal ethics dealing with Fellows of the College should be submitted for investigation and report to the Board of Regents.

This plan was approved by the Regents, and a Judiciary Committee has been authorized for each State and Province. The mere knowledge of the existence of such a committee, with power to investigate and make recommendation, has had a very salutary effect in regulating local situations; and the plan in operation enables us to act intelligently in dealing with undesirable Fellows, or situations which involve candidates or institutions.

V

The College included among its original purposes the betterment of medical education and of the clinical practice of medicine. The intelligent distribution of the benefits of medicine to mankind is inseparable from these purposes.

Successful work is most easily accomplished in a proper environment. As case records were submitted by applicants, we had early evidence that much surgical work was being done in hospitals which lacked many facilities essential in the scientific care of the patient. Cases were unsystematically recorded; laboratory facilities were woefully deficient; medical staffs were unorganized; and the professional work was generally without supervision.

When applicants were refused admission to the College because of unacceptable case records, hospitals interested themselves in our requirements, and requested that we furnish an outline of acceptable record forms and suggested standards for laboratories and for staff organization. Thus a grave responsibility was thrust upon us.*

For two years a preliminary analysis of hospitals was quietly pursued, and the program of the College was built upon the cumulative wisdom of those concerned with it. In outline, the hospital program of the College was presented to the American Hospital Association. The program was unanimously endorsed by the Association and a committee was appointed to coöperate with the College.

The Catholic Hospital Association, under the presidency of Rev. Charles B. Moulinier, S.J., together with His Eminence, James Cardinal Gibbons, also endorsed the proposed standardization plan of the College and offered their coöperation and aid. Cardinal Gibbons' statement in this matter, addressed to the Secretary-General of the College, reads as follows:

*In a preceding chapter (pages 301-302) reference was made to the proceedings of the annual business meeting of the Clinical Congress of Surgeons of North America, held November 15, 1912, in New York City, during which a committee was appointed according to a resolution presented by Allen B. Kanavel. This committee reported at the Chicago meeting of the Clinical Congress in 1913, and again at the Boston meeting of the Congress in 1915. Until 1917, the Clinical Congress and the American College of Surgeons were independent bodies, though they met simultaneously each year. The hospital standardization program of the American College of Surgeons was evolved by officials of the College, and has been administered by them.

"It is a pleasure to assure you of my interest in and approval of your plan, as explained to me, for the standardization of the hospitals of the United States. We should make every reasonable effort to reach the highest state of efficiency possible in each hospital; and bend every effort to bring about such uniformity as makes for progress.

"This plan gives promise of better results in the immediate future, and prepares us for any contingency that might arise that would throw a tremendous burden on the hospitals.

"January 11, 1917. (Signed) James Cardinal Gibbons."

On October 19 and 20, 1917, the first meeting of the State Committees on Standards was held in Chicago, and throughout the two days a survey of hospital standardization was made. This survey was divided into three divisions:

1. The number, distribution, valuation, and general classification of hospitals; and the relation of hospitals to the general public.
2. What the profession of medicine requires in hospitals to afford the patients the greatest benefits that medical science can offer.
3. A discussion of means to bring about the desired conditions.

During the hectic years of the World War, as we helped the Government to create a standard hospital system, our own program developed. The Regents decided that while the College must always assume the attitude of an adviser, the time had come for them to shoulder the responsibility of furnishing a minimum standard for hospitals, which would safeguard the care of every patient within a hospital by insistence upon competence on the part of the doctors, and upon adequate clinical and pathological laboratory facilities to insure correct diagnosis; by a thorough study and diagnosis in writing for each case; by a monthly audit of the medical and surgical work conducted in the hospital during the preceding interval; and by prohibiting the practice of the division of fees under any guise whatsoever. Mr. John G. Bowman, then Director of the College,* formulated the suggestions of the Regents into a tentative text of the Minimum Standard for Hospitals, which was adopted by the College December 8–10, 1917. The finished document has achieved international fame.

*Now Chancellor of the University of Pittsburgh.

To all to whom these presents shall come, Greeting

Be it known that by virtue of authority vested in them the Regents of the American College of Surgeons do hereby admit

Franklin H. Martin

as a

FELLOW

of the College, these letters being their testimonial that he is qualified in the Art and Science of Surgery. Given on the thirteenth day of November, Nineteen Hundred Thirteen.

CERTIFICATE OF FELLOWSHIP, AMERICAN COLLEGE OF SURGEONS

AMERICAN COLLEGE OF SURGEONS

HAS APPROVED

PENNSYLVANIA · HOSPITAL

· PHILADELPHIA

WHICH HAS COMPLIED WITH THE MINIMUM STANDARD REQUIREMENTS OF THE AMERICAN COLLEGE OF SURGEONS AS FOLLOWS:

I

THAT physicians and surgeons privileged to practice in the hospital be organized, as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is open or closed; nor need it affect the various existing types of staff organization. The word STAFF is here defined as the group of doctors who practice in the hospital inclusive of all groups such as the regular staff, the visiting staff, and the associate staff.

II

THAT membership upon the staff be restricted to physicians and surgeons who are: a full graduates in medicine in good standing and legally licensed to practice in their respective states or provinces; b competent in their respective fields, and, c worthy in character and in matters of professional ethics, that in this latter connection the practice of the division of fees under any guise whatsoever be prohibited.

III

THAT the staff initiate and, with the approval of the governing board of the hospital, adopt rules, regulations, and policies governing the professional work of the hospital; that these rules regulations and polices specifically provide: a that staff meetings be held at least once each month, in large hospitals the departments may choose to meet separately; b that the staff review and analyse at regular intervals their clinical experience in the various departments of the hospital, such as medicine, surgery, obstetrics, and the other specialties; the clinical records of patients, free and pay, to be the basis for such review and analyses.

IV

THAT accurate and complete records be written for all patients and filed in an accessible manner in the hospital – a complete case record being one which includes identification data, complaint, personal and family history; history of present illness; physical examination; special examinations, such as consultations, clinical laboratory, X-ray, and other examinations; provisional or working diagnosis; medical or surgical treatment; gross and microscopical pathological findings, progress notes, final diagnosis, condition on discharge; follow-up and, in case of death, autopsy findings.

V

THAT diagnostic and therapeutic facilities under competent supervision be available for the study, diagnosis and treatment of patients; these to include, at least: a clinical laboratory providing chemical, bacteriological, serological, and pathological services; b an X-ray department providing radiographic and fluoroscopic services.

THIS CERTIFICATE · GRANTED BY AUTHORITY OF THE BOARD OF REGENTS OF THE AMERICAN COLLEGE OF SURGEONS

W. J. Mayo, President — Chas. H. Mayo, President

Franklin H. Martin, Director General

HOSPITAL APPROVAL CERTIFICATE, AMERICAN COLLEGE OF SURGEONS

MINIMUM STANDARD FOR HOSPITALS

1. That physicians and surgeons privileged to practice in the hospital be organized as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is "open" or "closed," nor need it affect the various existing types of staff organization. The word STAFF is here defined as the group of doctors who practice in the hospital inclusive of all groups such as the "regular staff," the "visiting staff," and the "associate staff."
2. That membership upon the staff be restricted to physicians and surgeons who are (a) full graduates of medicine with the degree of Doctor of Medicine, in good standing and legally licensed to practice in their respective states or provinces; (b) competent in their respective fields; and (c) worthy in character and in matters of professional ethics; that in this latter connection the practice of the division of fees, under any guise whatever, be prohibited.
3. That the staff initiate and, with the approval of the governing board of the hospital, adopt rules, regulations, and policies governing the professional work of the hospital; that these rules, regulations, and policies specifically provide:
   (a) That staff meetings be held at least once each month. (In large hospitals the departments may choose to meet separately.)
   (b) That the staff review and analyze at regular intervals their clinical experience in the various departments of the hospital, such as medicine, surgery, obstetrics, and the other specialties; the clinical records of patients, free and pay, to be the basis for such review and analysis.
4. That accurate and complete records be written for all patients and filed in an accessible manner in the hospital—a complete case record being one which includes identification data; complaint; personal and family history; history of present illness; physical examination; special examinations, such as consultations, clinical laboratory, X-ray and other examinations; provisional or working diagnosis; medical or surgical treatment; gross and microscopical pathological findings; progress notes; final diagnosis; condition on discharge; follow-up and, in case of death, autopsy findings.
5. That diagnostic and therapeutic facilities under competent medical supervision be available for the study, diagnosis, and treatment of patients, these to include, at least (a) a clinical laboratory providing chemical, bacteriological, serological and pathological services; (b) an X-ray department providing radiographic and fluoroscopic services.

Acceptance of the standard is entirely voluntary, as is the maintenance of the requirements. The people who are interested in hos-

pitals are demanding that institutions for the care of the sick shall meet the minimum standard of efficiency.

Information about hospitals is not obtained through correspondence, or local or general committees. Actual surveys are made by salaried employees of the College—graduates of Class A medical schools, men of maturity with an extensive training in clinical work and hospital administration. These representatives send disinterested reports of their findings to the central headquarters, where all data are reviewed and the hospital rated.

The American College of Surgeons has conducted some 33,000 individual surveys of hospitals during the past sixteen years. Two thousand three hundred and seventy-six hospitals are on the approved list of the College (1933), and in each of these a Certificate of Approval, issued by the College, is visible evidence of a high standing. Thousands of smaller institutions which have adopted the principles are aspiring to meet the ideals.

The Carnegie Corporation of New York supported our work of hospital standardization by gifts aggregating $105,000. The College has contributed to the betterment of hospitals in America to the extent of over One Million Dollars.

All of this testifies to the transcendent importance of the program that was originated, financed, and administered by the College, and that has attracted the admiration and following of the public, and of all organizations interested in hospital efficiency. Among the more important benefits that have accrued to the public as the result of Hospital Standardization are the following:

1. Every safeguard surrounds the hospital patient.
2. The average days' stay of patients has been greatly reduced.
3. Hospital mortality rates have been definitely lowered.

The venture succeeded from its beginning because right-thinking medical men, whether members of the College or not, appreciate that greater efficiency in hospitals enables them to render improved service to the sick and injured.

During the past thirteen years the department of hospital standardization has been carried forward under the able directorship of Dr. Malcolm T. MacEachern, Associate Director of the College, whose

praiseworthy achievements are conspicuous because of his loyalty, efficiency and disinterestedness.

Dr. Earl W. Williamson, Assistant Director of Hospital Activities, joined the staff of the College early in 1922. Possibly no other person has surveyed a greater number of hospitals during these past twelve years. He has given loyal and excellent service to the College and has aided greatly in formulating the present method of conducting our surveys.

VI

During the present Century the hospitals of this continent have made unprecedented progress. Not only have they increased in number, but there has been an astounding development in buildings and equipment, so that today one sees in almost every community modernly constructed and equipped physical plants. In the United States alone $3,500,000,000 is invested in hospitals, a stupendous sum of money.

Possibly this rapid development can better be realized from the fact that between the years 1920 and 1929 almost $400,000,000 annually, or approximately $1,000,000 per day, was spent on hospital construction and equipment. Such rapid development and the constantly increasing demands of medical science are continuously bringing to the medical, surgical and hospital fields a vast and varied amount of equipment, instruments, and supplies, making it difficult for the physician, the surgeon, and hospital administrators to make a selection of the articles best suited for the purpose desired.

For the above reason and in response to the insistent demand of the various groups interested in the proper care of the patient—physicians, surgeons, and hospital administrators—a Committee on Approval of Medical, Surgical and Hospital Equipment, Instruments and Supplies was appointed by the College early in 1932. This committee has been carrying on a survey of equipment, instruments and supplies since that time, and placing the approval of the College on such articles as assure proper service to the patient and as measure up to the claims of the manufacturer. In this the College adheres to the fundamental principle of basing its approval on service to the patient, believing this to be the final test.

The work of approval of medical, surgical and hospital equipment, instruments and supplies is an added service to the 11,290 Fellows of

the College, the entire medical profession, and the hospitals of the United States and Canada with their 750,000 personnel and some 50,000 trustees.

Definite stated principles or requirements are laid down which must be complied with before approval is granted. An identifying mark, authorized by the College, will indicate to the prospective purchaser that the article bearing such a mark is good and useful for the purpose designated, and meets the claims of the manufacturer. Already more than six hundred articles in common use in medical, surgical and hospital practice have received the approval of the American College of Surgeons.

VII

No man has accomplished more for the betterment of the Catholic hospitals of the United States and Canada than Rev. Charles B. Moulinier, S.J., who served as President of the Catholic Hospital Association from its organization in 1915 until his retirement in 1929.

When that beloved and renowned American, His Eminence, James Cardinal Gibbons, embraced the movement of Hospital Standardization, Father Moulinier was already enthusiastic in this work; he led the campaign, that was so ably endorsed, with the genius of a statesman and the persistence of a crusader.

This cultured man, whom I love as a friend and with whom I have intimately associated at home and in travel, I learned to respect as a true priest. He loves his church which he serves devotedly; he loves his people; he has endeared himself to thousands of hospital administrators who look to him for aid and sympathy, and to thousands of sick men and women who are cared for in the hospitals to which his jurisdiction and service extended.

Father Moulinier is more than a priest, more than a mere organizer, more than an administrator, more than a teacher, more than a dean of a medical school, more than the founder and longtime President of the Catholic Hospital Association, more than the organizer and administrator of the first school for hospital administrators. He is a great statesman; he is a sympathetic counsellor; he is an orator of transcendent power and exquisite charm; he is a man of far-reaching vision and of poetic instincts. His humanitarianism is unbounded, and his practical methods have ever brought forth enduring results.

Father Moulinier's work has been that of a genius and stands for tangible and enduring progress. His lieutenants and successors will carry on; but the "Soul of the Father" should be kept in the forefront of progress, or his great and inspirational work will lapse and become mechanical and commonplace.

We who have worked with him know that the nature of the man compels him to "carry on," and that his aid is ever available whenever and wherever the sick in mind or in body call.

VIII

Prevention has become an outstanding factor in medicine. The people are more and more interested in the practical application of preventive measures in dealing with personal health.

Twenty-five years ago but a scattering few appreciated the advantages of a periodic health examination, whereas millions are now demanding this service. The majority of the people prefer to go to their own family doctor for these examinations. This desire is so universal, and the beneficial results of the examinations are so obvious, that the general practitioner is now called upon to apply preventive as well as curative measures in his every-day practice. As a result, he requires adequate equipment, laboratory facilities and trained aids to enable him to compete in scientific accuracy with his more fortunate fellow practitioners who have hospital or organized clinic affiliations, and who thus have ready access to all of these necessities.

A solution of the practitioner's problem reveals an added function for the community hospitals which are supported by private and public funds. It reveals the fact that the hospital has every necessary requirement in laboratories, scientific apparatus, and trained technicians and medical aids that are the boast of the most approved diagnostic clinic. The American College of Surgeons has suggested to the approved hospitals that they extend their diagnostic facilities to independent qualified practitioners of scientific medicine through a department to be known as a "Health Inventorium." Many hospitals have already adopted the plan.

The "Health Inventorium" has great possibilities; it can and will solve an immediate vexing problem that is puzzling the lay public and the profession. It is a practical, workable plan.

IX

The increasing complexity of the social structure of modern American life has given rise to serious problems which concern the relation of the medical profession to the individual public. The provision of adequate medical care to the community is a responsibility of the medical profession, and the methods by which this may be accomplished should likewise emanate from the doctors and be controlled by them.

In July, 1933, the President of the College, Dr. J. Bentley Squier, appointed a Medical Service Board to study the problems involved in the performance of this task by the medical profession and to report to the Board of Regents. The Board was composed of the following members: Robert B. Greenough, Boston, Chairman; Bowman C. Crowell, Chicago, Secretary; G. Harvey Agnew, Toronto; Charles A. Dukes, Oakland; Franklin H. Martin, Chicago; C. Jeff Miller, New Orleans; Eugene H. Pool, New York; Arthur M. Shipley, Baltimore; J. Bentley Squier, New York; S. Marx White, Minneapolis.

After thorough study the Medical Service Board made a report to the Board of Regents on June 10, 1934. It announced principles which should be observed in the development and conduct of plans for medical and hospital service to the community. Many experimental methods of practice are being conducted by various groups and organizations throughout the country. This first report deals with no specific plan but emphasizes the necessity of conforming with the accepted code of ethics of the medical profession and of the preservation of the personal relation between the patient and his personal physician in order that the interests of the patient and of the community may be protected. This report was approved.

X

Decentralization leads to saturation.

The American College of Surgeons is not in Chicago, but in every community on this continent and South America, where the Fellows of the College reside and practice their profession. Sectional meetings, miniature Clinical Congresses, which were first suggested by Dr. John Wesley Long, of North Carolina, take place every year in various groups of States and Provinces, and are the means of bringing together

the Fellows and their confrères, and those interested or engaged in hospital work.

The public is taken into the confidence of the profession at the community health meeting—a feature of every sectional conference—at which messages of health, scientific medicine, and improved hospital service are presented by leaders in the profession. The enthusiastic coöperation of the press, of all societies interested in civic betterment, and in many cases of municipal and State officers, together with the great numbers of the people who attend each community health gathering, attest to the widespread desire of the public to receive authentic information regarding better health.

There is thus developed a spirit of coöperation and of mutual interest. A direct contact is established between the College administration at headquarters, the various members of the College as they are engaged in their work, hospital services, and the public. It is this bond of communication which makes any organization democratic in its nature and efficient in its work.

The reputation of the College in any community is dependent upon the resident Fellows of the College, for the organization is judged by the average standard of its membership.

Shortly after the plan for sectional meetings was put into effect with the aid of Director John G. Bowman, who resigned on January 1, 1921, the College was extremely fortunate in having the services, as interim Director, of Judge Harold M. Stephens, of Salt Lake City, Utah.* With his judicial mind and his vision he was a great aid in furthering the fundamental principles for the conduct of these meetings.

Between the years 1922 and 1927 Dr. Allan Craig† was in charge of field activities in connection with the sectional meetings of the College. He was a forceful, enthusiastic orator who captivated his audiences with his power of thought and word.

XI

The worker who is "sufficient unto himself" is of the past. It is the "give and take" that leads to progress and to life.

Great universities and philanthropic foundations and individuals of wealth have invested vast sums in support of scientific research. The

*Now Assistant United States Attorney General.

†Now Medical Director of the Charlotte Hungerford Hospital, Torrington, Conn.

College has not attempted to duplicate such undertakings, but it is particularly interested in *clinical* research, an individual field, unlimited in extent, unappropriated, easily within its means, and of inestimable value to the actual practice of medicine. Already the College has the nucleus of a museum for special medical, surgical, and hospital studies; and a replica of the Lister exhibit in the Wellcome Historical Medical Museum, London, generously contributed by Sir Henry Wellcome.

The Department of Clinical Research is under the immediate supervision of a practical pathologist, Dr. Bowman C. Crowell, who is an Associate Director of the College. Prior to his affiliation with the College in 1926, Dr. Crowell had acquired an enviable reputation as a teacher of eminence.

XII

Bone sarcoma is a rare disease, and knowledge concerning its diagnosis and treatment is limited. In the practice of but few surgeons do there occur enough cases of bone sarcoma to make the personal experience of that surgeon of much practical value. Therefore, the idea was conceived by Dr. Ernest Amory Codman, of Boston, of pooling the cases and experiences, and thus forming a collection of cases of sufficient number to make a study of them valuable. Surgeons, pathologists, and radiologists have collaborated in this program of diagnosis, treatment, and practical research. Through the Registry of Bone Sarcoma, which was established in 1920, each individual patient secures the benefit of the general experience in treating similar cases.

It is the hope of the College to have a complete registration of every living case of bone sarcoma.

The personnel of the Committee on Bone Sarcoma is as follows:

Dallas B. Phemister, Chicago, Chairman
Bowman C. Crowell, Chicago, Registrar

Edwin I. Bartlett, San Francisco
Everett L. Bishop, Atlanta
Joseph C. Bloodgood, Baltimore
Barney Brooks, Nashville
Ernest A. Codman, Boston
Charles L. Connor, San Francisco
James Ewing, New York
W. R. Galbreath, Porto Rico
Frank W. Hartman, Detroit
Henry W. Meyerding, Rochester, Minn.
John J. Morton, Rochester, N. Y.
Channing C. Simmons, Boston

Ex-officio, Franklin H. Martin, Director-General



JOHN G. BOWMAN
Director, American College of Surgeons, 1915–1920



HAROLD M. STEPHENS
Interim Director, American College of Surgeons, January to June, 1921



REV. CHARLES B. MOULINIER, S. J.
Volunteer associate in hospital standardization and sectional meeting activities, 1915–1929



ALLAN CRAIG
Associate Director, American College of Surgeons, 1922–1927



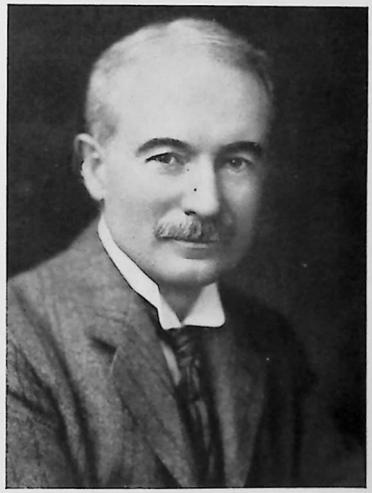
ALBERT D. BALLOU
General Manager, Clinical Congress of the American College of Surgeons and the Surgical Publishing Company



MALCOLM T. MacEACHERN
Associate Director, American College of Surgeons, in Charge of Hospital Standardization



BOWMAN C. CROWELL
Associate Director, American College of Surgeons, in Charge of Clinical Research



WALTER E. CARR
Fiscal Agent, American College of Surgeons

XIII

In view of the benefits that will accrue to mankind, the College is interested in cumulative studies of various diseases, and especially cancer. The Committee on the Treatment of Malignant Diseases, established in 1922 under the chairmanship of Dr. Robert B. Greenough, of Boston, is engaged in assembling uniform data of all cancer cases living five years or more after treatment.

The personnel of the Committee on Malignant Diseases is as follows:

Charles A. Dukes, Oakland, Chairman*

A. C. Broders, Rochester, Minn.
Curtis F. Burnam, Baltimore
George Crile, Cleveland
Bowman C. Crowell, Chicago
William Duane, Boston
Edwin C. Ernst, St. Louis
Rupert H. Fike, Atlanta
John M. T. Finney, Baltimore
Robert B. Greenough, Boston
Frank W. Lynch, San Francisco
Henry K. Pancoast, Philadelphia
H. Gideon Wells, Chicago
Francis C. Wood, New York

Ex-officio, Franklin H. Martin, Director-General

At a conference on the curability of cancer, held in St. Louis in October, 1932, thirty eminent surgical specialists of the continent told of their cases of cancer that have lived five years and more following treatment. A similar conference was held in Chicago in October, 1933, at which twenty-seven surgeons reported their cancer cures. The total number of cures reported at these two conferences is 8,250. Additional cancer cures of five years and more, registered by the College, specially reported, or recorded in an incomplete survey of the literature, brought the total of cured cases of cancer reported at these two conferences to 24,448.

Cancer is curable by the use of well known and established methods of treatment, and if every case of cancer could be diagnosed early and treated promptly in its incipiency, the annual death rate from the disease would be reduced by at least one-third.

The College has established a Minimum Standard for Cancer Clinics. Through properly organized cancer clinics in approved general hospitals, or other approved institutional clinics where cancer is

*Reluctantly the resignation of Dr. Robert B. Greenough as Chairman was accepted by the Board of Regents in October, 1933. The College mourned the loss of Dr. Burton J. Lee, of New York, who was appointed to succeed Dr. Greenough, and who died on November 12, 1933.

specially treated, physicians and surgeons who are scientifically qualified have at their command in their own communities laboratory and scientific apparatus through which they can insure to their patients the highest efficiency in the diagnosis and treatment of cancer.

It is hoped that ever-increasing numbers of the people will demand facilities, through scientific doctors, for annual or semi-annual examinations, so that not only cancer, but any and all diseases may be discovered in their incipiency when they are amenable to treatment.

MINIMUM STANDARD FOR CANCER CLINICS IN GENERAL HOSPITALS

1. ORGANIZATION. There shall be a definite organization of the service, and it shall include an executive officer and representatives of all the departments of the hospital which are concerned in the diagnosis and treatment of cancer. The services of a secretary and of a social service worker shall be available.
2. CONFERENCES. As an essential feature of the service there shall be regular conferences or consultations at which the diagnosis and treatment of the individual cases are discussed by all members of the clinic who are concerned with the case.
3. PATIENTS. Reference to the cancer clinic of all patients in whom the diagnosis or treatment of cancer is to be considered shall be either voluntary or obligatory in accordance with the vote of the medical staff or of the governing board of the hospital.
4. EQUIPMENT. In addition to the diagnostic and therapeutic surgical equipment which is required in every approved general hospital there shall be available an apparatus for X-ray therapy of an effectiveness which is generally agreed upon as adequate, and an amount of radium sufficient to insure effective treatment.
5. RECORDS. In addition to the records which are required in every approved general hospital, there shall be additional records of: (a) The details of the history and of the examination for cancer in different regions of the body, such as are indicated on the form records which are recommended by the Committee on the Treatment of Malignant Diseases, American College of Surgeons; (b) The details of the treatment by radium or X-ray as indicated on the form records which are recommended by the Committee on the Treatment of Malignant Diseases, American College of Surgeons; (c) Periodic examinations at intervals for a period of at least five years following treatment.
6. TREATMENT. The treatment of cancer patients shall be entrusted to the members of the staff of the cancer clinic except in cases in which adequate treatment in accordance with the collective recommendation of the staff of the cancer clinic can be procured otherwise.

XIV

Interest in the treatment of fractures received great impetus through war experiences. The concentrated attention of the best surgical minds of North America and Europe upon the subject resulted in hastening the establishment of certain fundamental principles and methods of treatment, which, under normal conditions, it would have taken years to effect.

In 1922, under the guidance of Dr. Charles L. Scudder, of Boston, an exhaustive study of the treatment of fractures was initiated. The committee has brought order out of chaos, and its findings, which represent the consensus of opinion of men of experience, have been passed along to clinicians and hospitals for their consideration and adoption.

The Fracture Committee, which is composed of forty-four surgeons who are keenly interested in the improvement of the treatment of fractures, has contact with the medical profession, medical schools, hospitals, the American Railway Association and its surgical personnel, the Bureau of Standards in Washington, the Board of Medical Examiners, and the American Red Cross.

The College has adopted a standard and requires of every approved hospital certain minimum equipment for the treatment of fractures; and the standard of treatment is slowly but surely being raised by educational methods.

STANDARD FOR MINIMUM EQUIPMENT FOR FRACTURE TREATMENT IN HOSPITALS

1. That all general hospitals be equipped to care for fractures; that the minimum equipment for the transportation and emergency treatment of fractures be the following or its equivalent:

   Thomas upper extremity splints; Thomas lower extremity splints with traction straps, slings and buckle straps; Hodgen splints; coaptation splints, assorted sizes; Cabot wire splints; straight pieces of wood (of assorted length, width and thickness) for splints; plaster of Paris bandages; some form of overhead frame for suspension; suitable X-ray apparatus, including a portable machine, if practicable.
2. That it is highly desirable that one individual surgeon be responsible for the supervision of the care of fractures in each hospital service.
3. That special record sheets be used for fracture cases.
4. That a close follow-up be maintained on all fracture cases for such time as necessary to establish an accurate knowledge of end results.

The personnel of the Committee on Fractures is as follows:

Frederic W. Bancroft, New York, Chairman
Robert H. Kennedy, New York, Secretary

Peter A. Bendixen, Davenport
Willis C. Campbell, Memphis
Isidore Cohn, New Orleans
H. Earle Conwell, Birmingham
Salvador Cordoba, Caracas
Frederic J. Cotton, Boston
Bowman C. Crowell, Chicago
William R. Cubbins, Chicago
William Darrach, New York
Frank D. Dickson, Kansas City, Mo.
Eldridge L. Eliason, Philadelphia
William L. Estes, Jr., Bethlehem
W. Edward Gallie, Toronto
Fraser B. Gurd, Montreal
Donald Guthrie, Sayre
George W. Hawley, Bridgeport
Melvin Henderson, Rochester, Minn.
William L. Keller, Washington
Norman T. Kirk, Washington
Philip H. Kreuscher, Chicago
Samuel L. Ledbetter, Jr., Birmingham
Walter Estell Lee, Philadelphia
George A. Leland, Jr., Boston
Paul B. Magnuson, Chicago
Henry C. Marble, Boston
Clay Ray Murray, New York
Lloyd Noland, Birmingham
Hubley R. Owen, Philadelphia
Edwin W. Ryerson, Chicago
Charles L. Scudder, Boston
W. O'Neill Sherman, Pittsburgh
Ernst A. Sommer, Portland, Ore.
Kellogg Speed, Chicago
Frederic J. Tees, Montreal
Jorge del Toro, Porto Rico
J. Huber Wagner, Pittsburgh
John B. Walker, New York
Roscoe C. Webb, Minneapolis
George E. Wilson, Toronto
John C. Wilson, Los Angeles
Philip D. Wilson, New York

Ex-officio, Franklin H. Martin, Director-General

XV

The Board on Industrial Medicine and Traumatic Surgery, organized in 1926, is concerned with the principle of adequate, scientific and ethical care of the ill and injured in industry.

During the World War traditions and theories were ruthlessly cast aside, for it was necessary to execute tasks expeditiously and efficiently, and with the greatest economy of management, of money, and of man power. It was advantageous to the Government to develop every facility that would preserve health.

The present Board had its genesis in a committee on industrial medicine* that was organized in 1917 by the Medical Section of the Council of National Defense. In a word, this program demonstrated as never before that the employer and employee could accomplish most if they worked harmoniously. The great leaders of industry, of labor, of medicine, and of insurance and indemnity companies composed their differences, to the great benefit of all concerned.

*See Appendix 21 for personnel of the Committee.

The College has adopted a minimum standard of qualifications for physicians and surgeons in industry, and the environment in which they work. The real work of the Board—to insure proper care of the ill and injured in industry—is being pursued under the chairmanship of Dr. Frederic A. Besley, with the aid of two excellent men, Drs. M. N. Newquist and E. W. Williamson, who are engaged in surveying industrial and other types of clinics for the purpose of ascertaining which of them conform to the minimum standard as established by the Board. Five hundred and twenty-five industrial establishments in the United States have complied with this minimum standard.

Leaders in industry have shown a deep interest in the basic study by the College of this important and far-reaching problem. Obviously, this is important for it furnishes the impetus for raising standards. A knowledge of every circumstance surrounding the care of the ill and injured in industry is placing the College in a position to influence and direct a rational plan for improvement.

For the purpose of crystallizing the general knowledge of the subject of medical service in industry within convenient readable limits, and for the purpose of presenting certain proven principles and facts in this field, Dr. Newquist has prepared a Digest of Medical and Surgical Service in Industry and Workmen's Compensation Laws.

The findings and recommendations in this digest, published by the College in 1934, are based on a preliminary study of the subject during the period from 1926 to 1931 by the Board on Industrial Medicine and Traumatic Surgery and on personal surveys from 1931 to 1933. These surveys included 925 American industrial establishments of various types with 2,432,027 employees. The digest calls attention to the practical benefits to all concerned of good industrial medical service and to the relation of medical to compensation costs. It further reveals that while many of the larger industrial organizations have provided excellent medical service for their employees, much can be done to improve the service especially in the smaller establishments. This comparative inadequacy of medical service in the small industrial organizations is due as a rule not to a lack of skilled physicians or surgeons in the community, but rather to a failure on the part of the

employer to provide early medical supervision and service and to select only competent physicians. The solution of this problem will require that the small companies establish a definite plan for medical service which will fix responsibility for medical matters in competent medical hands. As a matter of economy, small industrial organizations may combine into groups to secure adequate medical service.

MINIMUM STANDARD FOR MEDICAL SERVICE IN INDUSTRY

1. The industrial establishment shall have an organized medical department or service with competent medical staff including consultants and also shall have adequate emergency, dispensary and hospital facilities and personnel to assure efficient care of the ill and injured.
2. Membership on the medical staff shall be restricted to physicians and surgeons who are (a) graduates from an acceptable medical school, with the degree of Doctor of Medicine, in good standing and licensed to practice in their respective states or provinces; (b) competent in the field of industrial medicine and traumatic surgery; (c) worthy in character and in matters of professional ethics; in the latter connection the practice of the division of fees, under any guise whatsoever, shall be prohibited.
3. There shall be a system of accurate and complete records filed in an accessible manner, such records to include particularly a report of injury or illness, description of physical findings, treatment, estimated period of disability, and results, as well as other information pertinent to the case or required by statute for Workmen's Compensation claims or other purposes.
4. All patients requiring hospitalization shall be sent to institutions approved by the American College of Surgeons.
5. The medical department or service shall have general supervision over the sanitation of the plant and the health of all employees.

Personnel of the Board on Industrial Medicine and Traumatic Surgery:

Frederic A. Besley, Waukegan, Chairman
Bowman C. Crowell, Chicago, Secretary

John E. Bacon, Miami, Ariz.
James F. Churchill, San Diego
Samuel R. Cunningham, Oklahoma City
Donald Guthrie, Sayre
Lucian H. Landry, New Orleans
A. D. Lazenby, Baltimore
Charles F. Martin, Montreal
Charles H. Mayo, Rochester, Minn.
Thomas G. Orr, Kansas City, Mo.
W. O'Neill Sherman, Pittsburgh
Loyal A. Shoudy, Bethlehem
Ernst A. Sommer, Portland, Ore.
Frederick J. Tees, Montreal
John B. Walker, New York
S. Marx White, Minneapolis

Ex-officio, Franklin H. Martin, Director-General

XVI

In order to insure to every patient the maximum benefit from a clinical laboratory, so far as diagnosis and treatment are concerned, the College organized, in 1922, a Committee on the Standardization of Clinical Laboratories, under the chairmanship of Rear Admiral E. R. Stitt, of the U. S. Navy. The minimum standard was adopted by the Board of Regents of the College in 1926.

The service which is rendered by a clinical laboratory is now so well established that it need not be justified.

MINIMUM STANDARD FOR CLINICAL LABORATORIES IN HOSPITALS

1. That the clinical laboratory shall be under the direction of a graduate in medicine, especially trained in clinical pathology.
2. That the clinical laboratory shall be prepared to perform satisfactory work in (a) histopathology; (b) bacteriology and parasitology; (c) serology; (d) haematology, and (e) chemical and morphologic examinations of other body fluids, exudates, transudates, and excreta.
3. That all tissues removed at operation shall be examined in the laboratory and reports rendered thereon.
4. That an easily available copy of all reports shall be filed in the laboratory and one with the patient's record. In histopathology there shall be in the laboratory a cross index of, at least, the name of the patient, of the hospital or laboratory number of the patient, and of the lesion or organ. There shall be preserved also, for at least three years, either section, embedded tissue, or gross tissue from each case from which tissue is removed.
5. That a uniform system of charges for laboratory work shall be enforced.
6. That the clinical pathologist shall attend the monthly staff conferences of the hospital.

XVII

In 1921 the Department of Literary Research was established and through it the unlimited facilities of an extensive medical library were placed within the reach of the pioneer surgeon in the outlying district as well as of the surgeon in the larger centers. The department offers a three-fold service: package library material, which is loaned free of charge; bibliographies, compiled upon specified subjects; and abstracts and translations, all of which are an invaluable aid to the medical profession in the preparation of papers, in the study of clinical cases, and in the development of experimental work. This service is available to any

member of the medical profession without regard to specialty or location.

Among the periodic publications of the College are the official monthly journal, *Surgery, Gynecology and Obstetrics* with the *International Abstract of Surgery;* the quarterly bulletin; the Year Book; and monographs on surgical and hospital subjects.

XVIII

The importance of motion pictures as a means of disseminating medical knowledge has been generally accepted by the profession. There is an ever-increasing interest in the work which the American College of Surgeons is doing in coöperation with the Motion Picture Producers and Distributors of America, Inc. Films produced under the plan are of unusual significance as examples of the possibilities of this method as an aid in teaching medicine and surgery, and as a means of acquainting medical graduates with medical and surgical progress, and the laity with essential health facts.

The Board on Medical Motion Picture Films of the College consists of the following members:

Will H. Hays, Esq., New York, Honorary President
J. Bentley Squier, New York, Chairman
Philemon E. Truesdale, Fall River, Secretary

W. W. Chipman, Montreal	Malcolm T. MacEachern, Chicago
George Crile, Cleveland	Franklin H. Martin, Chicago
Bowman C. Crowell, Chicago	Charles H. Mayo, Rochester, Minn.

XIX

Visits to South and Central America, planned as vacation trips, developed into an international adventure through which intimate professional friendships have been established between the surgeons of North, Central, and South America.

This movement was initiated in 1920 by President W. J. Mayo and myself when we visited Panama, Peru, Chile, Argentina, and Uruguay. Our reception was so cordial, and the desire on the part of our neighbors to coöperate was so manifestly genuine, that the visit was repeated by Dr. Thomas J. Watkins, of Chicago, and myself in 1921, and extended to include Brazil, Ecuador, and Bolivia. In 1923 we added Colombia



DR. AND MRS. FRANKLIN H. MARTIN AND STAFF OF THE AMERICAN COLLEGE OF SURGEONS AND "SURGERY, GYNECOLOGY AND OBSTETRICS"



EXECUTIVE OFFICES, AMERICAN COLLEGE OF SURGEONS

JOHN B. MURPHY MEMORIAL

OFFICES, "SURGERY, GYNECOLOGY AND OBSTETRICS"

and Venezuela, and in 1924 Guatemala, El Salvador, Nicaragua, Costa Rica, Dominican Republic, and Porto Rico.

Representative surgeons of all America have allied themselves with the American College of Surgeons, for "In science there is no sectional boundary."

In establishing our contacts with the surgeons of South and Central America and the islands of the West Indies, the College enlisted the aid of three capable surgeons, each one of whom was thoroughly familiar with the Spanish language—Dr. Francis P. Corrigan, of Cleveland, Ohio;* Dr. Edward I. Salisbury, of Denver, Colorado;† and Dr. James T. Case, Professor of Roentgenology in Northwestern University Medical School, Chicago.

XX

During the early months of 1924, Dr. W. J. Mayo and I, entirely independent of instructions from the College, undertook a delightful vacation trip to Australia and New Zealand. What at first was intended as a purely personal contact with the profession of these two interesting countries developed into a series of meetings and conferences at which we were asked to discuss the American College of Surgeons, and especially its program of hospital betterment.

The fame of our College had preceded us, as the story had been carefully read by the several hundred surgeons in Australia and New Zealand who subscribe to our Official Journal, *Surgery, Gynecology and Obstetrics*. These far-away neighbors of ours were interested in the College, and they were keen to obtain first-hand information about the working out of details so far as they might be applicable to their own peculiar problems. We were careful not to make any tender of affiliation, although much thought evidently had been given by them to plans for the organization of a guild of surgical specialists. A small group, as individuals, expressed the wish to apply for fellowship in our College, a request that was readily granted by our Board of Regents.

This visit was an inspiration to us, and the strong friendships we formed were most gratifying. The interchange of ideas, and the intimate exchange of viewpoints, taught us that inevitably circumstances must draw us nearer together. What a strong bond for scientific unity

*Now United States Minister to El Salvador.

†Now Superintendent and Surgeon, United Fruit Company Hospital, Port Limon, Costa Rica.

surrounding the great Pacific is thus created—New Zealand, Australia, the Philippines, South and Central America, Canada, and the United States—a great Pan-Pacific alliance cemented by scientific aspirations, an alliance that cannot but bring us closer together in our national aspirations.

In 1926, Dr. MacEachern, Associate Director in charge of hospital activities, was loaned by the College to Australia and New Zealand at the request of the Government and the British Medical Association of both countries for the purpose of advising with them regarding future policies and development of their hospitals. While there he made a personal survey of the hospitals and assisted the authorities in laying the foundation for the remodeling of their institutions along the lines laid down by the Minimum Standard of the College. It is gratifying that noteworthy progress in this respect has been made by both countries since his visit. Worthy of note, also, is the fact that Hospital Standardization was the subject of special discussion at the Pan-Pacific Surgical Congress in Honolulu, in 1929.

The Royal Australasian College of Surgeons was organized in 1928 on lines which closely parallel the American College of Surgeons.

XXI

A controversy in regard to a permanent home was waged as early as the first meeting of the College. In 1915, the committee selected Washington, but general sentiment strongly favored a location more nearly in the population center of the continent.

In 1916, at the untimely death of the distinguished founder, John B. Murphy, his personal friends asked the College to accept a permanent site in Chicago, upon which a home would be builded and presented to the institution as a memorial to the Master Surgeon.

Though this plan was not executed, due to the sudden death of two of its principal supporters and the intervention of the World War, opinion had crystallized in favor of Chicago. In June, 1919, during the presidency of William J. Mayo, the lay friends and Fellows of the College residing in Chicago made formal presentation to the College of the stately edifice at 40 East Erie Street, which is centrally located, and provides a commodious and beautiful building adapted to the administrative work of the institution.

The site also contained a suitable plot of vacant ground upon which now stands the Murphy Memorial building, a gift of the family and friends of Dr. Murphy, a dignified structure which houses assembly halls, the library, and temporary museum space.

At the dedication of the building, on June 10 and 11, 1926, William J. Mayo proclaimed it ". . . .a fitting monument to the greatest surgeon of his day, John B. Murphy, one of the founders of the College, who gave unsparingly of his strength and talents to aid in the establishment of the organization, and whose noble spirit will always sanctify this ground."

The "Murphy Oration" is a feature of the annual Clinical Congress. The first oration was presented at the Montreal meeting, in 1920, by Sir Berkeley Moynihan.

The value of the College property, including the one-fourth block on the south side of Erie Street, purchased in 1929, is conservatively estimated at $1,250,000.

Those who were near at the time of the building of the Murphy Memorial will remember the devoted friend whose very soul has become a part of its masonry—Walter E. Carr, Fiscal Agent of the College.

XXII

In their desire to place the College on a safe, independent, and financially adequate basis, commensurate with the personnel, the ideals, and the future possibilities of the organization, the Regents, in 1914, planned to raise an endowment for the College of One Million Dollars.

Of the three thousand Fellows enrolled in the College in January, 1916, one thousand subscribed Five Hundred Dollars each toward the Endowment Fund. Since that time additional amounts have been subscribed, and in June, 1934, the permanent endowment of the College, invested in trust securities, totaled $845,500.

In the history of medicine, probably no other incident tells of such definite loyalty and sincerity on the part of the profession for its advancement toward an unselfish ideal of service.

An initial fellowship fee of Fifty Dollars from each Fellow was voted at the first meeting. As the activities of the College called for expenditures beyond the income provided by the interest from the endowment, the Fellows of the College voted in 1916 that those who had not sub-

scribed to the fund should be assessed by annual dues of Twenty-five Dollars each.

XXIII

Durable keystones are essential. In every stable organization keymen and women who are enthusiastic, resourceful, industrious, and above all loyal, must stand at the stress-points, carry the load, and make well-thought-out plans come true. Such are the individuals who have been at the helm in important departments of the College and of the Journal.

Allen B. Kanavel, with his fine judgment, his devotion and loyalty, and his personal friendship throughout an almost daily contact over a period of thirty-four years, was one of the original five who aided in the creation of the Journal, *Surgery, Gynecology and Obstetrics*, which he has served as Associate Editor since its inception. He was a member of the organizing committee of the Clinical Congress, of which he was Treasurer during its independent existence of seven years. He has been a member of the Board of Regents and of the Executive Committee of the College for many years, and served as its President in 1931–1932.

Albert D. Ballou, the General Manager of the Journal since 1907, and of the Clinical Congress since its organization in 1910, has given continuous, untiring, faithful and fruitful service. Industry, tact, and loyalty to his trust are his credentials. His business sagacity and his knowledge of the intricacies of printing and publishing are unsurpassed.

Mrs. Marion Farrow, the Executive Secretary of the College, was developed in its ranks. She is a leader of the forceful type, and faithfulness to her trust is her religion. Her associates are inspired by her devotion to the cause, and the *esprit de corps* of the executive offices spells enthusiasm for the College and the development of its program.

Officers and Regents. From the beginning the officers and Regents of the College have disinterestedly worked for the success of its ideals, frequently at great personal sacrifice, and never has their trust been marred by the practice of expediencies, or by politics. Statesmanship has ever been manifest. Stability is insured by retaining faithful trustees as long as their services are available.

The present officers and Regents of the College are:

President: William D. Haggard, Nashville
Vice-President: Evarts A. Graham, St. Louis
Vice-President: Alexander R. Munroe, Edmonton
Director-General: Franklin H. Martin, Chicago
Treasurer: *Frederic A. Besley, Waukegan

OFFICERS ELECT

President: Robert B. Greenough, Boston
Vice-President: Charles A. Dukes, Oakland

BOARD OF REGENTS

*George Crile, Cleveland, Chairman
*Irvin Abell, Louisville
G. A. B. Addy, St. John
John M. T. Finney, Baltimore
John R. Fraser, Montreal
*William D. Haggard, Nashville
John E. Jennings, Brooklyn
*Allen B. Kanavel, Chicago
*Franklin H. Martin, Chicago
*Charles H. Mayo, Rochester
Robert E. McKechnie, Vancouver
C. Jeff Miller, New Orleans
George P. Muller, Philadelphia
Howard C. Naffziger, San Francisco
Richard R. Smith, Grand Rapids
J. Bentley Squier, New York

The following eminent surgeons have served in the past as officers and Regents of the College:

†George E. Armstrong, Montreal
A. T. Bazin, Montreal
Herbert S. Birkett, Montreal
William C. Braisted, Washington
George E. Brewer, New York
†Truman W. Brophy, Chicago
Herbert A. Bruce, Toronto
Walter W. Chipman, Montreal
†John G. Clark, Philadelphia
Frederic J. Cotton, Boston
Harvey Cushing, Boston
†J. Chalmers DaCosta, Philadelphia
Lincoln Davis, Boston
†John B. Deaver, Philadelphia
†James B. Eagleson, Seattle
Eldridge L. Eliason, Philadelphia
W. Edward Gallie, Toronto
Herbert P. H. Galloway, Winnipeg
Perry G. Goldsmith, Toronto
†William C. Gorgas, Washington
†Jasper Halpenny, Winnipeg
C. Gordon Heyd, New York
Merritte W. Ireland, Washington
Daniel F. Jones, Boston
‡Charles E. Kahlke, Chicago
Philip H. Kreuscher, Chicago
†Arthur A. Law, Minneapolis
†Robert G. LeConte, Philadelphia
Fred Bates Lund, Boston
John G. MacDougall, Halifax
Edward Martin, Philadelphia
Rudolph Matas, New Orleans
William J. Mayo, Rochester
John S. McEachern, Calgary
†Frank H. Mewburn, Edmonton
Ross Millar, Ottawa
†Harvey G. Mudd, St. Louis
George Henry Murphy, Halifax

*Executive Committee.
†Deceased.
‡Treasurer of the College, 1923–1924.

†John B. Murphy, Chicago
Charles F. Nassau, Philadelphia
†Albert J. Ochsner, Chicago
Horace Packard, Boston
†Frederick W. Parham, New Orleans
William W. Pearson, Des Moines
†Charles H. Peck, New York
†John Osborn Polak, Brooklyn
Eugene H. Pool, New York
†Miles F. Porter, Fort Wayne
Alexander Primrose, Toronto
†Charles E. Sawyer, Marion
George E. de Schweinitz, Philadelphia
†Henry H. Sherk, Pasadena
†Harry M. Sherman, San Francisco
Frank F. Simpson, Pittsburgh
Ernst A. Sommer, Portland, Ore.
†Clarence L. Starr, Toronto
†Frederic N. G. Starr, Toronto
†George David Stewart, New York
†Charles F. Stokes, Washington

XXIV

Visions, plans, and organization in any worth-while enterprise are important; but wise administration is essential. Only the outstanding activities of the College have been touched upon. That the College has been successful is evidenced not only by its history, but by its reputation for doing useful things, and its appeal to clinicians of three continents who have become a part of it, and to the surgeons of ability in the other countries of the world.

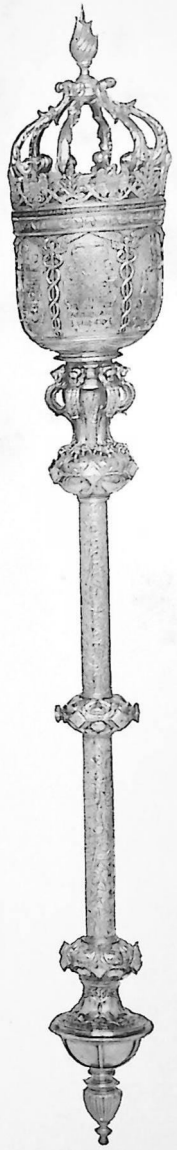
The College has always paid its own bills. The annual budget is based upon the income for the preceding year, with a provision for a substantial margin of saving which is immediately added to the endowment fund which at present amounts to $845,500, invested in gilt-edged securities, the principal of which is to be held in perpetuity. The College has supported a definite, progressive program of standardization not only of the activities of surgeons, but of the environments in which surgery is performed. It has fought for ideals.

The Board of Regents has been of one accord—that the institution must fulfill its obligation to the public as a great educational guild for practical surgeons.

XXV

The College Seal. Aesculapius, the symbol of European learning, and an American Indian Medicine Man are seated beneath a Tree of Knowledge, making offering of their symbols of healing in common service to mankind. Aesculapius is draped in conventional Greek fashion, wears sandals, and holds aloft, toward the Powers above, the rod and serpent, a common emblem of mystery and healing. The Indian Medicine Man

†Deceased.



THE GREAT MACE



SEAL OF THE AMERICAN COLLEGE OF SURGEONS



THE LISTER GAVEL

Corps, the shields of arms of John Hunter and Lord Lister, and a cartouche bearing the words "Philip Syng Physick 1768–1837, Father of American Surgery."

The lower portion of the head is decorated with a symbolic band of water, indicating the ocean which both unites and separates America and the Mother Country. British lion brackets support the head, and terminate the upper part of the staff.

The staff is decorated with a free design of the national floral emblems of the United Kingdom—the rose, the thistle, the shamrock, and the leek. Intertwined are a number of ribbon scrolls, each one of which bears the name of a donor.

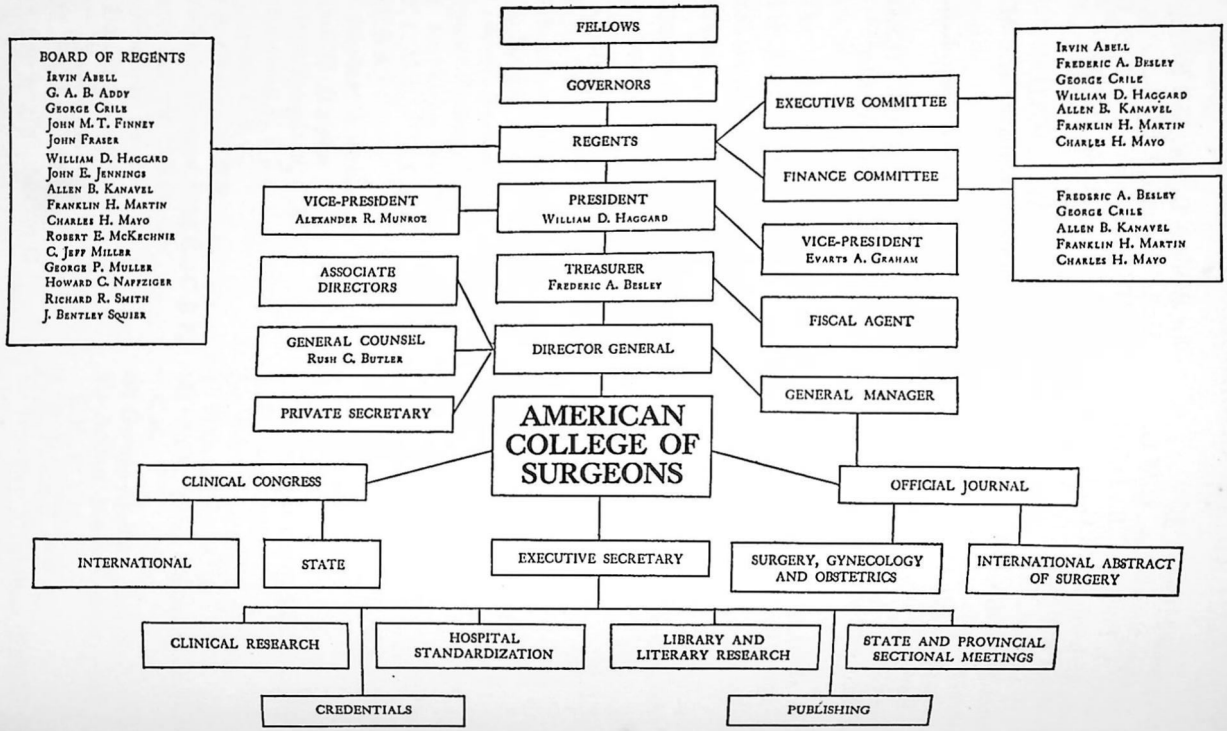
The various parts are held together, in the traditional manner, by a rod of British oak, cut from a tree grown at Wytham, Berks. The extreme length is three feet, eleven and one-fourth inches, and the weight of silver is 140 ounces troy.

CONSULTING SURGEONS OF THE BRITISH ARMIES WHO GAVE THE GREAT MACE TO THE AMERICAN COLLEGE OF SURGEONS

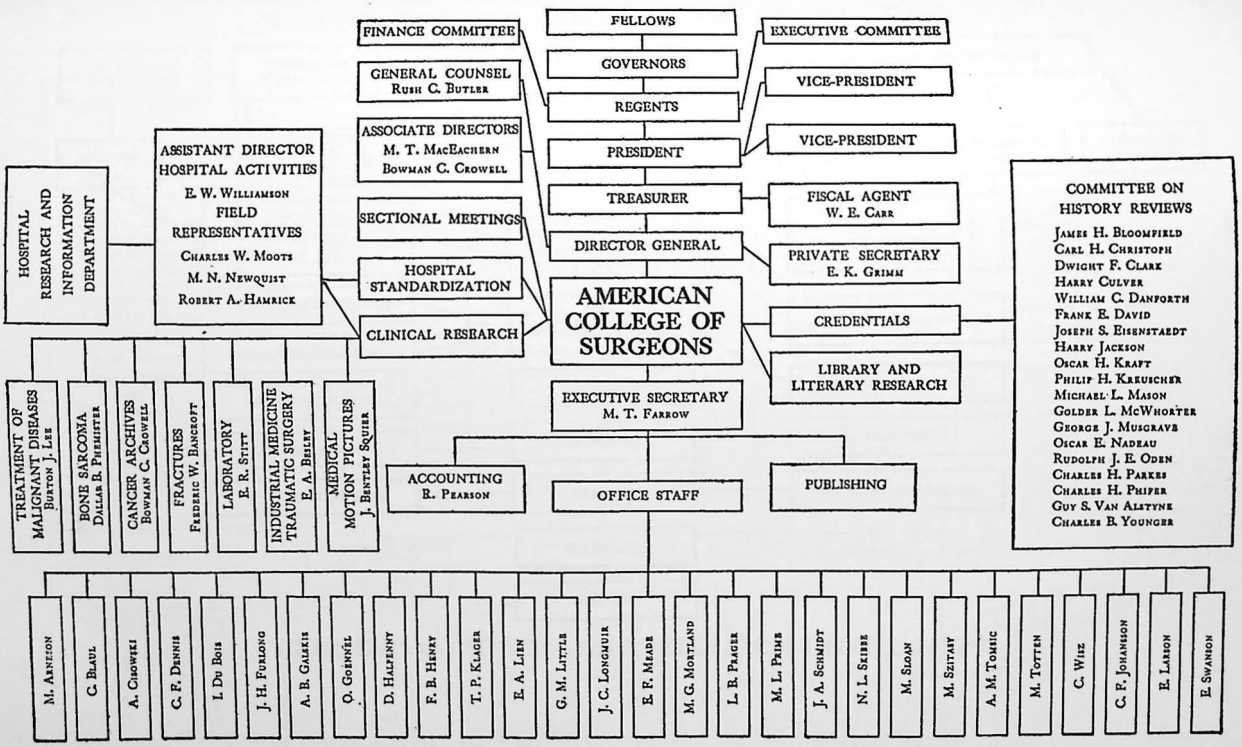
Sir Charles A. Ballance, K.C.M.G., C.B., M.V.O.
Sir Hamilton Ballance, K.B.E., O.B.
A. E. Barker
Sir Gilbert Barling, Bart., C.B.
Seymour Barling, C.M.G.
Sir Anthony Bowlby, K.C.B., K.C.M.G., K.C.V.O., D.S.M. (U.S.A.)
Dr. Herbert A. Bruce
Arthur H. Burgess
Frederic Burghard, C.B.
H. Burrows, C.B.E.
A. Carless, C.B.E.
Sir A. Chance, C.B.E.
Charles C. Choyce, C.M.G., C.B.E.
Frank Connor, D.S.O.
Sir Kennedy Dalziel
R. Davies-Colley, C.M.G.
T. P. Dunhill, C.M.G.
J. M. Elder, C.M.G.
Sir Crisp English, K.C.M.G.
H. A. Fairbank, D.S.O.
C. H. S. Frankau, C.B.E., D.S.O.
Forbes Fraser, C.B.E.
Sir Peter Freyer, K.C.B.
A. Fullerton, C.B., C.M.G.
George Gask, C.M.G., D.S.O.
Sir Henry Gray, K.B.E., C.B.
Sir Victor Horsley
E. Hugo
Sir Robert Jones, K.B.E., C.B., D.S.M. (U.S.A.)
R. E. Kelly, C.B.
Sir Arbuthnot Lane, Bart., C.B.
T. P. Legg
Sir William Lister, K.C.M.G.
V. Warren Low, C.B.
Sir John Lynn-Thomas, K.B.E., C.B.
Sir George Makins, G.C.M.G., C.B.
Sir Arthur Mayo-Robson, K.B.E., C.B., C.V.O.
A. B. Mitchell, O.B.E.
Sir Berkeley Moynihan, K.C.M.G., C.B.

Sir Thomas Myles, C.B.
T. H. Openshaw, C.B., C.M.G.
Colonel A. Pilcher, C.B., D.S.O.
Owen Richards, C.M.G., D.S.O.
Sir Hugh Rigby, K.C.V.O.
Percy Sargent, C.B., D.S.O.
James Sherren, C.B.E.
Thomas Sinclair, C.B.
Maynard Smith, C.B.
Sir Harold Stiles, K.B.E.
James Swain, C.B., C.B.E.
Sir Charters Symonds, K.B.E., C.B.
Sir William Taylor, K.B.E.
Alexis Thomson, C.M.G.
Sir William Thorburn, K.B.E., C.B.
A. H. Tubby, C.B., C.M.G.
G. Grey Turner
H. Wade, C.M.G., D.S.O.
Sir Cuthbert Wallace, K.C.M.G., C.B.
Sir Charles Gordon-Watson, K.B.E., C.M.G.
A. Webb-Johnson, C.B.E., D.S.O.
Sir William I. de C. Wheeler

GENERAL ORGANIZATION CHART 1933–4



COLLEGE ORGANIZATION CHART 1933–4



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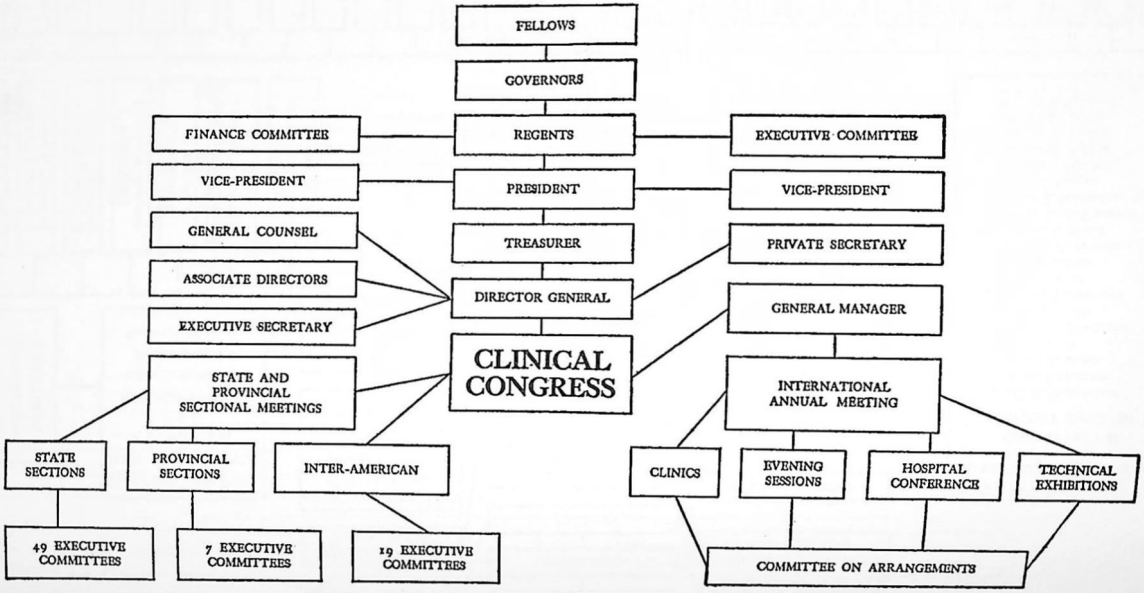
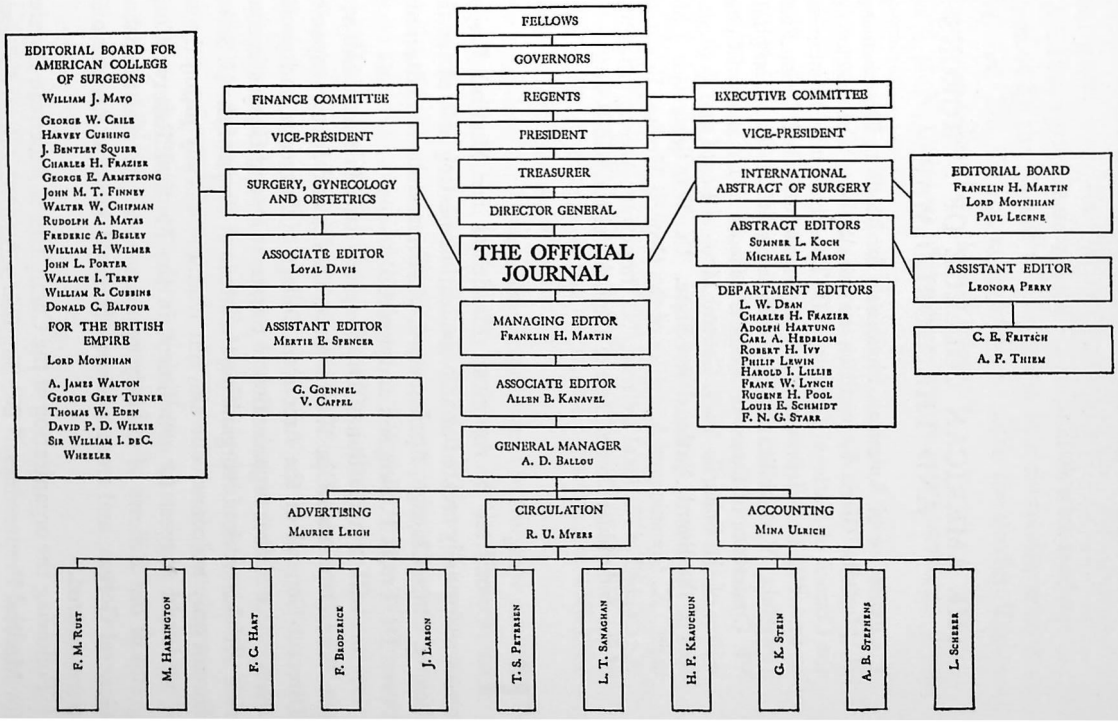


OFFICIAL JOURNAL ORGANIZATION CHART 1933–4



33

THE AMERICAN COLLEGE OF SURGEONS AND THE WORLD WAR

I. Committee of American Physicians for Medical Preparedness. II. Medicine Given Recognition on the Advisory Commission of the Council of National Defense. III. The President's Pronouncement. IV. Col. Jefferson R. Kean—American Red Cross Base Hospitals. V. Mobilization of the First Red Cross Base Hospital. VI. Conference of Deans of Medical Schools. VII. Medical Committee of the Council. VIII. General Medical Board and Committees of the Board, National and State. IX. War Sessions in Chicago. X. Conspicuous Activities of the General Medical Board of the Council of National Defense. XI. Important Accomplishments of the Individual Committees of the General Medical Board.

I

THE Committee of American Physicians for Medical Preparedness was formally created at an organization meeting held at the Union League Club, Chicago, April 4, 1916, after numerous consultations between Dr. Frank F. Simpson and myself.

In line with a suggestion of Dr. Simpson, early in 1916 I had visited the War Department in Washington, D. C., and in my capacity of Director-General of the American College of Surgeons had proffered the services of that organization to Surgeon General Gorgas in connection with his work of reorganizing the Medical Corps of the U. S. Army. He not only welcomed our aid, but characteristically promptly asked if we could suggest for enrollment in the Medical Reserve Corps a group of our Fellows of military age. A selected list was furnished to General Gorgas, and from this two thousand Medical Reserve officers were secured.

Following the organization of the Committee of American Physicians for Medical Preparedness,* Dr. Simpson secured the immediate active

*See Appendix 1 for personnel of the Committee.

coöperation of its members, and stimulated general interest in the essential work.

On April 20, 1916, the services of the committee were tendered to the Government by the Executive Committee in a conference with President Wilson. Dr. Finney, as spokesman, made the proffer. The communication was signed by the following:

William J. Mayo, *Chairman, Committee of American Physicians for Medical Preparedness*
Albert Vander Veer, *President, American Medical Association*
William S. Thayer, *President, Congress of Physicians and Surgeons of North America*
Fred B. Lund, *President, Clinical Congress of Surgeons of North America*
J. M. T. Finney, *President, American College of Surgeons*
Frank F. Simpson, *Secretary, Committee of American Physicians*

George E. Brewer	Robert G. LeConte
George W. Crile	Franklin H. Martin

As our plans would dove-tail with activities of the Army, the Navy, and the American Red Cross, the President said he would transmit our offer to the secretaries of the respective departments, with his own sympathetic recommendation.

From that date our industrious secretary was in frequent conference with the heads of the two military branches of the Government—Secretary of War Baker and Secretary of the Navy Daniels, more especially with the former. Dr. Simpson also was in close touch with Surgeons General Gorgas of the Army and Braisted of the Navy, and Colonel Kean of the Red Cross. State Committees on Medical Preparedness were appointed and branches in counties were organized at a later date.

During the spring and summer of 1916, a survey of hospitals and sanitaria by the committee made available information as to the capacity of 1,700 such institutions. In the autumn the committee was requested by the Surgeon General of the Army to assist in stimulating the interest of the civilian medical profession in the Medical Reserve Corps, looking toward an increased enrollment.

II

June, July and August of 1916 found the U. S. Senate and House of Representatives in a ferment of discussion in their efforts to reorganize

the military departments of the Government. The Council of National Defense, with a civilian Advisory Commission as an auxiliary thereto, was established by Act of Congress, approved August 29, 1916.

For many years organized medicine has urged a Cabinet portfolio for medicine and sanitation, an influential status that the importance of the profession warrants. This request has been persistently denied, and as a consequence medicine has been relegated to the position of a subsidiary activity in several distinct departments of the Government; there has been no dignified, central, supreme authority.

Dr. Simpson was determined that medicine should be represented on the Advisory Commission. For more than a year, before and after the Committee of American Physicians was organized, he travelled almost continuously (at his own expense) from one center of the country to another. I was consulted by this ubiquitous official, through correspondence or in person, at least several times a month; and I was only one of twenty-eight members of the committee. His tenacity was rewarded. When the Advisory Commission was created, of the seven positions upon it one was reserved for medicine.

We rejoiced over his victory. With innate modesty, he protested vigorously against any individual credit, and in the midst of my arguments he said, nonchalantly:

"Now that our bill has been passed, the next thing we must do is place you on that Advisory Commission."

I was amazed. In unmistakable terms, and without the slightest hesitation (when I finally realized that he was in earnest) I endeavored to discourage any such idea, saying that to consider me for such a position argued failure to his plans. Positively, and without argument, he must not under any circumstances use my name in this connection. I insisted that he was the logical man for the position. Deftly, but definitely, he changed the subject and did not discuss the matter with me again.

III

The following statement was issued by President Wilson on the night of October 11, 1916, when he announced the appointment of the civilian Advisory Commission of the Council of National Defense:

"The Council of National Defense has been created because the Congress has realized that the country is best prepared for war when thoroughly prepared for peace. From an economic point of view, there is now very little difference between the machinery required for commercial efficiency and that required for military purposes.

"In both cases the whole industrial mechanism must be organized in the most effective way. Upon this conception of the national welfare the Council is organized, in the words of the act, for 'the creation of relations which will render possible in time of need the immediate concentration and utilization of the resources of the Nation.'

"The organization of the Council likewise opens up a new and direct channel of communication and coöperation between business and scientific men and all departments of the Government, and it is hoped that it will, in addition, become a rallying point for civic bodies working for the national defense. The Council's chief functions are:

"1. The coördination of all forms of transportation and the development of means of transportation to meet the military, industrial, and commercial needs of the Nation.

"2. The extension of the industrial mobilization work of the Committee on Industrial Preparedness of the Naval Consulting Board; and complete information as to our present manufacturing and producing facilities adaptable to many-sided uses of modern warfare will be procured, analyzed, and made use of.

"One of the objects of the Council will be to inform American manufacturers as to the part which they can and must plan in national emergency. It is empowered to establish at once and maintain through subordinate bodies of specially qualified persons an auxiliary organization composed of men of the best creative and administrative capacity, capable of mobilizing to the utmost the resources of the country.

"The personnel of the Council's advisory members, appointed without regard to party, marks the entrance of the nonpartisan engineer and professional man into American governmental affairs on a wider scale than ever before. It is responsive to the increased demand for and need of business organization in public matters, and for the presence there of the best specialists in their respective fields. In the present instance the time of some of the members of the Advisory Board could not be purchased. They serve the Government without remuneration, efficiency being their sole object and Americanism their only motive."

The Council of National Defense consisted of six Cabinet members:
The Secretary of War, Newton Diehl Baker, Chairman
The Secretary of the Navy, Josephus Daniels
The Secretary of the Interior, Franklin Knight Lane
The Secretary of Agriculture, David Franklin Houston
The Secretary of Commerce, William Cox Redfield
The Secretary of Labor, William Bauchop Wilson.

The Advisory Commission of the Council of National Defense consisted of seven civilians appointed by the President:

Mr. Daniel Willard, President of the Baltimore & Ohio Railroad, Baltimore
Mr. Hollis Godfrey, LL.D., President of Drexel Institute, Philadelphia
Mr. Howard E. Coffin, Detroit (also Chairman of the Committee on Industrial Preparedness of the Naval Consulting Board)
Dr. Franklin H. Martin, surgeon; Director-General of the American College of Surgeons, Chicago
Mr. Bernard Baruch, financier, New York
Mr. Julius Rosenwald, Vice President of Sears, Roebuck & Co., Chicago
Mr. Samuel Gompers, President of the American Federation of Labor, Washington.

IV

The offer of the American College of Surgeons to provide a list of acceptable prospects for the Medical Reserve Corps of the Army placed the organization in a favorable light in General Gorgas' office, and there were frequent calls for advice and aid in the canvass for reserve officers.

Meanwhile I had come in close contact with Colonel Kean, director-general of military relief of the Red Cross, who was organizing base hospitals, and we had frequent conferences in regard to personnel for his proposed hospital units.

Dr. George W. Crile, of the Lakeside Hospital, Cleveland, Ohio, and professor of surgery in Western Reserve University, was first to suggest the unit idea in the organization of American base hospitals for military service, believing, as he said, "that mediocrity well organized is more efficient than brilliancy combined with strife and discord." Dr. Crile presented his plan in the symposium on military surgery at the Clinical Congress of Surgeons of North America in October, 1915, at Boston, at which time he credited the genesis of the unit idea to a request by our ambassador to France, the late Hon. Myron T. Herrick—another Clevelander.

V

The Clinical Congress of the American College of Surgeons was scheduled to be held in Philadelphia during the week beginning Monday, October 23, 1916. Colonel Kean approved of the suggestion to

have a demonstration in Fairmount Park, Philadelphia, of the Red Cross' method of handling one of its units as a base hospital near the front in time of war; or in peace-time emergencies, such as fire, famine, or other disaster.

The week of October 23 found Fairmount Park astir with the first definite mobilization of an indispensable equipment for war. Major Crile and his aids donned the uniform of the U. S. Medical Reserve Corps. The unit demonstrated a 500-bed Base Hospital, and included among the personnel physicians and surgeons, enlisted men, and a corps of trained nurses drawn from the hospitals of Cleveland.

After these first base hospitals had been organized under the auspices of the Red Cross, many others were assembled, mainly by the Army Medical Corps, at army training centers here and in Europe. In all, there were 129 United States base hospitals* that operated in France or England—120 organized in the United States and nine organized in Europe—also 19 hospital units, organized in the United States; 93 camp hospitals, of which 88 were in France, four in England, and one in Belgium. Forty-six ambulance companies were organized under the Red Cross by Major Robert U. Patterson, M.C., U. S. A.

VI

Under authorization of the Council and Commission, a communication was sent by me, in the form of a letter bearing the signature of the Secretary of War, to the deans of all accredited medical schools in the United States, inviting them to attend a conference in Washington at 10 a.m., January 6, 1917.

Eighty-seven deans or other representatives of the schools met in the small ballroom of the New Willard Hotel, to discuss the military medical training of students. There were on the platform, among others, Surgeons General Gorgas of the Army, Braisted of the Navy, and Blue of the Public Health Service, and the Director of Military Relief of the American Red Cross, Colonel Kean.

VII

In December, 1916, pursuant to the organization of the Advisory Commission, the Committee of American Physicians for Medical

*See Appendix 37 for list of American Red Cross Army Base Hospitals.

Preparedness was asked to continue under the Council's Committee on Medicine and Sanitation. As a result, when war was declared early in April, 1917, substantial progress in the coördination of civilian and military medical resources of the country had been made.

Numerous plans had been considered and perfected through the medium of the Executive Committee of the Medical Section of the Council and Commission. Its membership included the three Surgeons General, and Colonel Kean of the Red Cross—these four representing the regular arms of the Government with full administrative authority —and, as lay members, Rear Admiral Cary T. Grayson, who represented the President; Prof. William H. Welch, of Johns Hopkins University; Dr. Victor C. Vaughan, Dean, University of Michigan Medical School; Dr. William J. Mayo (alternate, Dr. Charles H. Mayo) of the Mayo Foundation; Dr. Frederic A. Besley, Professor of Surgery, Northwestern University Medical School; Dr. Frank F. Simpson, recently Professor of Gynecology, University of Pittsburgh Medical Department; and Dr. Franklin Martin, Chairman. The committee had been meeting each Monday morning, usually in my office, and on call at irregular times.

Any recommendations which the Medical Section submitted to the Advisory Commission or to the Council had been thoroughly discussed and approved by this medical committee. It is obvious that this method of procedure effected the most cordial understanding among all branches of medicine, whether lay or governmental.

In case of war the great lay profession of medicine would become the backbone and main support of each of the regular medical branches. During these early months of preparation the Medical Section of the Council had been aiding the respective departments of the Government in enrolling Reserve Officers, and in obtaining and storing supplies. The strength of our coördinating committee with its influential personnel was soon appreciated, and our services were in constant demand in efforts to procure appropriations.

VIII

The General Medical Board* had been authorized by the Council of National Defense on April 3 to aid in the enormous expansion of the

*See Appendix 2 for personnel of the Board.

various governmental bureaus and to coördinate with their work the resources and talent of the civilian medical profession. It was a foregone conclusion, in view of the great Army and Navy that we were raising, that the enrollments from civil life would far out-number the regular medical services. Also, it was well known that there did not exist among the medical services of the three major departments the coöperation that would be necessary in war time.

In organizing this Board it was desirable that it should include the outstanding medical and surgical representatives of the profession in the United States and also the three surgeons general of the regular forces, the director of military relief of the Red Cross, and the medical officer who was physician to the President. I was authorized to cooperate with Secretary Baker in forming this Board. After the first meeting on April 19, the sessions of the Board were scheduled for Sundays, and in the beginning were held weekly. This made it necessary for the members from distant States to remain in Washington, where many of them also rendered valuable assistance in an administrative capacity. Special meetings of the Board were held at the Rockefeller Institute, New York; in Chicago; and at Camp Greenleaf, Georgia.

Originally comprising 39 representatives of medical and surgical societies, the Army, the Navy, the Public Health Service, and the Red Cross, the General Medical Board was later increased to 87 active and 4 honorary members. At the first meeting of the Board on April 19, 1917, the following committees were appointed: Executive, Medical Schools, Hospitals, and Publicity. Subsequently other Committees* were appointed as follows: Child Welfare, with sub-committees on Midwifery and Graphic Exhibits; Civilian Coöperation in Combating Venereal Diseases; Dentistry; Editorial; Hygiene and Sanitation, with sub-committees on Alcoholic Control, Drug Addictions, Public Health Nursing, Statistics, Tuberculosis, and Venereal Diseases; Industrial Medicine and Traumatic Surgery; Legislation; Medical Advisory Boards; Nursing; Rehabilitation of Maimed and Crippled; Research; States Activities; Surgery, with sub-committees on Classification of Surgeons, Ophthalmology, and Otology, Rhinology and Laryngology; Women Physicians; Standardization of Medical and Surgical Supplies

*See Appendixes 3 to 34 for personnel of these Committees.

and Equipment; the Central Governing Board of the Volunteer Medical Service Corps; and Medical Aids to Governors of the States.

These committees were composed of the leaders in their respective specialties and representatives of the governmental medical departments. Immediately upon their appointment they reported at the offices of the Medical Section of the Council, prepared to enter upon any duty required of them, without thought of remuneration or recognition. Throwing all their energies into the task before them, they found their reward in the gradual unfolding of an organization which has by the fruit of its labors left an indelible imprint on the history of medicine in the United States, and which, by reason of the contact and comparison of military and civilian methods in the treatment of the sick cannot help but be mutually advantageous to the civil and military forces for all time to come. The general scientific program which was laid down by these volunteer workers in their advisory capacity was followed by the Government medical bureaus in the conduct of their activities during the period of the war. Shortly after their organization many of the committees were gradually absorbed by the executive bureaus of the Government, and their work continued as working components of the military machine.

State Committees of National Defense, Medical Section, were appointed to coördinate the activities of the various organizations engaged in promoting medical preparedness.

The Executive Committee of the General Medical Board, while it may not have been the only means whereby the regulations prevailing in peace times were simplified, became at once an agent that not only brought the key medical officers of the regular corps into business relations with their chiefs, but also effected similar contacts among the civilian doctors who were to have a conspicuous part in our war program.

Without this coöperating board, recommendations brought by me to the Council or Commission might have advocated activities that were already being carried out in one or more departments, or the proposals for some reason might have been embarrassing to one or more branches of the service. Also, my position in presenting a recommendation was the stronger if I could bring it as one having the approval of the General Medical Board and its Executive Committee.

IX

The General Medical Board and its Executive Committee were meeting in Chicago during the annual session of the Clinical Congress of the American College of Surgeons, October 22 to 26, 1917. Among our guests of distinction were Col. T. H. Goodwin, R.A.M.C., London; Sir Berkeley Moynihan, Leeds; and Col. C. U. Dercle, Paris.

This Congress was indeed a "war session." Many doctors had not been nearer to war surgery than seeing or reading about it in their home communities. From the announced program they realized that this Chicago week, with the speakers from the seat of war, would afford them an unprecedented opportunity for first-hand information. So they came, in numbers. Mornings and afternoons, as usual, were devoted to clinics and demonstrations in hospitals, medical schools, and laboratories. At 5 o'clock each day, in the Gold Room of the Congress Hotel, moving pictures of surgical operations were shown. The addresses on war surgery were given at the evening sessions.

A telegram from President Wilson was read at the first evening session, held at Orchestra Hall:

"My warm greetings and best wishes. It cheers us all to see thoughtful, patriotic work done in such a spirit."

Representatives of State and county medical committees and thirty-one members of the Medical Board were present.

X

It is impossible in a limited space to more than touch upon the conspicuous activities of the General Medical Board of the Council of National Defense:

Fulfilling Requests of British and French for Medical Officers and Ambulances. As a result of a conference in April, 1917, between members of the British and French Missions and Dr. Simpson and myself concerning the need for doctors and supplies, recommendation was made to the Surgeon General that one thousand medical men of the United States be sent to Great Britain—two hundred each month—to be utilized as medical officers in the British Army; also that ten base hospitals of one thousand beds each, with adequate personnel and equipment, and two thousand ambulances be sent to France for service

with the British and French forces. Within a month the men, the hospitals, and the ambulances were in France, and at the service of the Allies.

Cantonments. In June of 1917 a committee was appointed to investigate plans for cantonments and the location of camp sites. Recommendation was later made to the Secretary of War, and approved by him, that the Surgeon General or his representative approve the selection of camp sites as well as plans for their construction and repair, sewage disposal, water supply, drainage, and other matters related to hygiene and sanitation.

Proposed War Medical Training in France—"Le College Des Etats-Unis D'Amerique." Upon the recommendation of the General Medical Board, the Council of National Defense approved a project for the establishment in France of an institution to serve as a clearing-house for medicine and allied subjects, to be financed from private sources, the site of which, in Paris, had been offered by the French Government. However, with the great drives on our war fronts, it seemed inadvisable to push the project, especially as our medical officers were already being transferred overseas.

This brilliant plan, like many of our prospective arrangements, was made unnecessary by two facts: First, the speeding up of the transportation of doctors to France and the seat of war; and, second, before our plans matured we were in the presence of what appeared to be the final successful drive against the Germans—a blessed fact that proved to be true.

*Recruiting Medical Officers for the Army and Navy.** Effort to obtain medical officers for the Medical Reserve Corps was continuous. Through its State and county committees, the Committee on Medicine and Sanitation early took steps to classify the medical profession according to its availability for military service and communal needs. As a result of this classification, twenty thousand selected men were communicated with by the committee urging their prompt enrollment in the Medical Reserve Corps. State and county committees were instructed personally to interview prospective candidates. In the summer of 1917, sixty thousand application blanks for enrollment were printed and distributed by the committee to prospective candidates.

*See also "Committee on States Activities" page 391.

Medical journals, in many cases, printed application blanks in their publications. On July 18, 1917, fifty deans of dental schools met to discuss enlistment of students in the Enlisted Medical Reserve Corps, and assignment to the inactive list. On July 27, 1917, about one hundred and fifty representative homeopathic physicians met and agreed to secure one thousand physicians for the Army. Medical graduating classes were appealed to by letter, and there was regular communication with the deans of medical schools to the end that they might present the appeal to their graduating classes.

Patriotic meetings were held throughout the country, and at these we enlisted the coöperation of members of our committees, many of whom had seen active service in France, and also distinguished visitors from Canada and abroad who were on leave from their war services at the front. Among the latter were Col. T. H. Goodwin, R.A.M.C., liaison officer in the office of the Surgeon General of the U. S. Army; Sir Berkeley Moynihan, Captain J. Gilmour, R.A.M.C., Sir Arbuthnot Lane, Col. George E. Gask, and Maj. George Grey-Turner of England; Sir James Mackenzie of Scotland; Sir Thomas Myles of Ireland; Col. Charles U. Dercle, Maj. Eduard Rist, and Maj. Pierre Duval of France; Col. Raffaele Bastianelli of Italy; and Col. Herbert A. Bruce of Canada.

On November 1, 1916, the medical officers of the U. S. Army numbered 440; and the medical officers of the U. S. Navy, 329. At the Armistice there were 30,591 medical officers in the U. S. Army, and 2,570 in the U. S. Navy.* Practically every Fellow of the American College of Surgeons who was of military age and eligible for service enrolled in the Medical Reserve Corps of the Army or Navy. Several thousand Fellows also enrolled in the Volunteer Medical Service Corps.

Increased Rank for Medical Officers of the U. S. Army. At the beginning of the World War, the highest rank accorded to medical officers of the Army (other than the special rank of Major General conferred on General Gorgas by Congress in 1915 in recognition of his achievements in Havana and Panama) was that of Colonel for the regular Medical Corps, and Major for the Medical Reserve Corps, with corresponding pay.

*See Appendix 36 for Officers, Medical Corps, U.S. Army, and Appendix 35 for Officers, Medical Corps, U.S. Navy.

Within the first month of our entrance into the war, we were sending medical reserve officers to be brigaded with the British, and to man our own base hospitals in Europe. These services attracted the pick of physicians and surgeons of our country. Men of the stamp of Harvey Cushing, Hugh Young, George Crile, Frederic Besley, Hugh Cabot, and George Brewer were in Europe with the rank of Major, associating with English and French medical officers who ranked as Colonels and Generals. Allied officers performing the same professional duties as our men were diplomatic when in contact with our doctors of international reputation—when and if they were recognized. Otherwise, they naturally looked upon our medical officers as we ourselves had designated them, as of inferior status. The great difference in rank was a distinct disadvantage and humiliation to the Americans.

Fortunately, Surgeon General Gorgas recognized the tragedy of this situation, and he was immediately stirred to aid us in adjusting it. At an early meeting of our General Medical Board, on June 25, 1917, a bill providing for increased rank for medical officers was read and approved, subject to such changes as might be thought advisable. (It was the understanding that whatever recognition in the way of proportionate increased rank was gained for the Medical Corps should pertain also to the Dental Corps.) This was the beginning of a long, laborious campaign in which General Gorgas and I were much engrossed, as we were determined to bring it to a successful conclusion. Our efforts led to some interesting experiences.

Several bills were introduced into Congress—by Senators Owen (Oklahoma) and McKellar (Tennessee) and by Representative Dyer (Missouri). The Owen and Dyer Bills were practically identical. On August 20, at a meeting of the Executive Committee of the General Medical Board we discussed certain amendments to the Owen and Dyer Bills.

After a conversation with the Secretary of War, in which he voiced his approval of the amendments, I called a conference in my office, at which Senator Owen, his brother, Col. William Owen (curator of the Army Medical Museum, and at this time actively aiding us), and Representative Dyer were present. They, too, approved of our suggested amendments and were agreed that army medical officers should be proportionately distributed in the several grades about as already

provided by law for the Medical Corps of the Navy. The bill was presented simultaneously in both houses of Congress—in the Senate by Senator Owen,* and in the House† by Representative Dyer. After many vicissitudes and alterations, it was attached as a rider to the General Deficiency Appropriation Bill.

On February 27, I handed a letter to Secretary Tumulty for the President. The President replied on March 5 as follows:

"My dear Dr. Martin,—

"I read very carefully your memorandum of February twenty-seventh about the rank accorded members of the Medical Corps of the Army and have taken pleasure in writing letters to the chairmen of the Military Committees of the House and Senate, expressing the hope that the bill and resolution may be passed.

"Cordially and sincerely yours,
"WOODROW WILSON."

This placed the responsibility of the opposition to our efforts out of the President's hands.

Secretary Baker authorized the following statement:

"I wish to strongly emphasize that without legislation giving the Army equalization of rank in the higher grades with that of the Navy, the branch of the Government of which I am in charge will be done an obvious injustice, the detrimental effect of which to the Army is too clear to require more than a statement. . . . As Congress, after a full consideration of the subject, wisely decided on the advisability of giving the Navy these grades in order that it may be properly and efficiently officered, for similar reasons it should now provide similar grades for the Army. . . .

"If in all those joint matters in which the Army and Navy are concerned, the Navy, by reason of the position of the superior grade, is entitled to outrank the Army, the Army must perforce regard itself and be looked upon as a subordinate branch, and this is too inequitable."

The bill advocating increased rank for the Medical Reserve Corps was obviously just, but it met with subtle opposition even after it had received the approval of President Wilson and the Secretary of War.

Many hearings were held before the Military Affairs Committees of the Senate and the House. Again, in the last hour, when it seemed that our measure would be eliminated from the Appropriations Bill and

*Senate Bill No. 3748.
†House Resolution No. 9563.

thereby be defeated, I again appealed to the President. He promptly communicated with Representative Dyer and stated his wish that the amendment should be supported. This eliminated the last effort of the opposition and the Owen-Dyer Bill was finally passed by both houses of Congress on July 9, 1918.

In its final form it gave to medical officers the same rank that had been accorded to other branches of the reserve corps of the Army, namely, Lieutenant to Major General, with the intervening ranks of Captain, Major, Lieutenant Colonel, Colonel, and Brigadier General.

It is a satisfaction to those interested in the Medical Corps to have this most important branch of the fighting forces come into its own.

The General Medical Board approved in principle the proposal of its Nursing Committee which advocated military rank for nurses, but the armistice occurred before the bill was perfected.

XI

A brief outline of the more important accomplishments of the individual committees of the General Medical Board is here enumerated:

Volunteer Medical Service Corps. In order that the services of physicians ineligible for appointment to the Medical Reserve Corps on account of over age (55), physical disability, or civil or institutional needs, and women physicians might be utilized by the Government, the Council of National Defense, upon the recommendation of the chairman of the Committee on Medicine and Sanitation, authorized and directed the organization of the Volunteer Medical Service Corps.

A special committee to draft a program was appointed, and on January 13, 1918, the plan was approved by the General Medical Board. The general management of the Corps was vested in a Central Governing Board* and machinery was set in motion to secure members. Application blanks were first sent to the five thousand doctors who were ineligible for the Medical Reserve Corps because of slight physical disabilities.

Later the increased demands on the medical profession for doctors for military duty made it advisable to enlarge the scope of the Volunteer Medical Service Corps to include every physician in the country not already in Government service, in order that, by means of the

*See Appendix 4 for personnel of the Board.

information secured from the questionnaire which constituted the application for membership, their qualifications and disposition to serve the Nation in any capacity might be on record with the Government. Accordingly on August 5, 1918, a plan for the enlargement of the scope of the Corps was submitted to the Council of National Defense, which body authorized the execution of the new plan. This authorization was supplemented by the personal approval of the President as indicated in the following communication:

"My dear Dr. Martin,—

"I have received your letter of August 5, laying before me the matured plan for the reorganized Volunteer Medical Service Corps, of which you ask my approval. This work was undertaken by you under the authority of the Council of National Defense; it has had great success in enrolling members of the medical profession throughout the country into a volunteer corps available to supply the need of the Army, Navy, and Public Health Service. In coöperation with the General Medical Board of the Council of National Defense, the strong governing board of the reorganized corps will be able to be of increasing service, and through it the finely trained medical profession of the United States is not only made ready for service in connection with the activities already mentioned, but the important work of the Provost Marshal General's Office and the Red Cross will be aided and the problems of the health of the civilian communities of the United States assured consideration. I am very happy to give my approval to the plans which you have submitted, both because of the usefulness of the Volunteer Medical Service Corps and also because it gives me an opportunity to express to you, and through you to the medical profession, my deep appreciation of the splendid services which the whole profession has rendered to the Nation with great enthusiasm from the beginning of the present emergency. The health of the Army and the Navy, the health of the country at large, is due to the coöperation which the public authorities have had from the medical profession; the spirit of sacrifice and service has been everywhere present and the record of the mobilization of the many forces of this great Republic will contain no case of readier response or better service than that which the physicians have rendered.

"Cordially and faithfully yours,

"WOODROW WILSON."

Immediately through direct appeal from the Washington office, accompanied by simultaneous action on the part of the State and county representatives of the Corps throughout the country, an intensive campaign for enrollment was initiated in September, 1918, with

the result that at the armistice 72,219 qualified physicians and surgeons had pledged themselves to place their services at the Government's disposal to perform any duty assigned to them. In all, eighty per cent of the medical men recorded as being in active practice had promised their services to the United States.

The record of the medical profession furnished by the Volunteer Medical Service Corps was considered of great importance as a peace-time or war-time record for permanent use by the government bureaus. The Central Governing Board of the Corps was therefore instructed by the Council of National Defense to complete the medical survey by securing from every physician in the country a record of his or her qualifications as a permanent record of the medical profession of the Nation. This record was placed in the Surgeon General's library for future reference by the government departments.

During the influenza epidemic in the fall of 1918, a request was received from the Surgeon General of the U. S. Public Health Service, asking for medical assistance in coping with the emergency. Within a week the names of 1,100 volunteers were supplied by the office of the Corps. This tender of service lessened the demand appreciably, and evoked a letter of appreciation from the Surgeon General.

*Committee on Medical Advisory Boards** and *Medical Aids to Governors of the States.*† In November, 1917, the Provost Marshal General requested the Council of National Defense to nominate a medical aid to the governor of each State as an advisor in the operation of the selective service law. The General Medical Board immediately appointed a Committee on Modical Advisory Boards, which met in Washington and selected a representative from each State. These representatives were called to Washington to attend a conference and to receive their instructions.

A definite plan was formulated by the Committee on Medical Advisory Boards outlining the duties of these aids in the selection of the personnel of medical advisory and local boards, and the supervision and organization of all medical activities under the selective service act. Rules of procedure were prepared and approved by the Provost Marshal General.

*See Appendix 5 for personnel of the Committee.
†See Appendix 6 for personnel of the Medical Aids to Governors.

The medical aids were of great assistance to the governors of the States, each one of whom personally expressed his gratification at the whole-hearted way in which the aids coöperated.

*Committee on Child Welfare.** Programs covering the problems of the child were prepared and issued to the States through the State Councils Section and the Woman's Committee of the Council of National Defense. The committee coöperated closely with educational institutions and governmental bureaus, including the Children's Bureau of the Department of Labor and the National Child Labor Committee.

Committee for Civilian Coöperation in Combating Venereal Diseases.† One of the most important and far-reaching contributions of the General Medical Board toward the successful prosecution of the war was its active interest and energetic assistance in the work of this committee. The danger of venereal diseases in reducing the efficiency of the armed forces was presented to the Council of National Defense and the Advisory Commission at a conference arranged by me, and attended by the leading social hygienists of the country, the Surgeons General of the Army, Navy, and Public Health Service, the Director of Military Relief of the American Red Cross, and the members of the General Medical Board of the Council. This conference was followed by the presentation of arguments before Congressmen and committees, and the initiation of an educational campaign for national support of the social hygiene program.

Partially as the result of the committee's correspondence with State boards of health throughout the country, thirty-two States adopted laws or regulations requiring the reporting of venereal diseases; eleven States organized bureaus or divisions of venereal diseases in their health departments; at least fifteen States provided arsphenamin free or at low cost; sixteen States engaged in educational work; and only two States gave no indications of activity in the campaign to combat venereal diseases.

Committee on Dentistry.‡ At the time the United States declared a state of war to exist between this country and Germany, the total

*See Appendix 7 for personnel of the Committee.
†See Appendix 10 for personnel of the Committee.
‡See Appendix 11 for personnel of the Committee.

number of dental officers was 58—18 Captains and 40 First Lieutenants—a sufficient number to care for fifty odd thousand men. Within a year the number of the dental officers was increased in the Dental Corps of the Regular Army to 209, in the National Guard to 259, and in the Dental Reserve Corps to 5,196, or a sufficient number to supply the quota permitted by law for an army of 5,664,000 men. Dental officers, as a result of the law enacted on October 6, 1917, were distributed in the same grades and percentages within the grades as are allowed for officers of the Medical Corps of the Regular Army and National Guard and the Medical Reserve Corps. The commission of First Lieutenant was tendered to 5,467 dentists, and 95.1 per cent accepted—all but 271.

In the rapid development of the dental service, all credit must be given to the patriotism of the members of the dental profession, the various preliminary dental examining boards, dental faculties, dental manufacturers, and officers and members of the Preparedness League of American Dentists. The official record shows that 613,285 gratuitous dental operations were performed by the members of this last named organization, which was also largely responsible for the three dental motor-car ambulances which were presented to the Surgeon General of the Army.

A survey of dental and oral hospital physicians was made, and an investigation was initiated as to the relationship of trench-mouth disease and oral and general disease. In coöperation with dental manufacturers, dental instruments and supplies were standardized. Military instruction was included in the curricula of dental colleges, and special training of applicants for enrollment in the Dental Surgeons' Corps was initiated.

*Editorial Committee.** As an immediate and direct benefit to the largely increased numbers of medical officers who had not had military medical experience, and to enable them the better to conserve the health and lives of the fighting men of the United States, the General Medical Board authorized the Editorial Committee to proceed with plans for the publication, in pocket manual form, of textbooks epitomizing the surgical and medical experiences acquired in the war,

*See Appendix 12 for personnel of the Committee.

and written by men especially qualified by training and by war experience. Eight of these manuals were prepared and published.*

Committee on Hospitals.† It was recommended to the general hospitals of the country that their staffs be reorganized in order to release as many as possible of their members for military service. Hospital authorities were requested to furnish the names of physicians attached to their institutions who were absolutely necessary for the conduct of the work, and of those who might be spared for government service. Communications were addressed to all included in the latter group urging their immediate enrollment in the Medical Department of the Army or of the Navy.

The hospitals of the country were classified as to size, convenience to railroads, facilities for expansion and equipment for handling special work. The matter of portable hospitals was investigated, and the purchase of a limited number of such hospitals was recommended to the Surgeon General of the Army. Offers of private houses and other large buildings, tendered to the Government for use as military hospitals, were classified and tabulated for reference by the Surgeon General's office. Hospitals were urged to acquire, gradually, reserve stocks of drugs, appliances, and supplies with a view to future expansion.

Important progress was made toward uniformity in names of diseases, injuries, and operations by indexing and comparing the nomenclature in use by the Army, the Navy, and the Public Health Service.

Committee on Hygiene and Sanitation.‡ Realizing the relation of the alcohol problem to venereal disease, the committee, in April, 1917, recommended to the War and Navy Departments that the zones around camps and cantonments be placed under military control in order to protect the troops from venereal infections. The action prohibiting the sale of alcoholic beverages within the camps and extra-cantonment zones was emphatically endorsed.

Much valuable information was assembled, and many important recommendations were made regarding sanitary measures, through

*See Appendix 38 for list of Medical War Manuals.
†See Appendix 13 for personnel of the Committee.
‡See Appendix 14 for personnel of the Committee.

Sub-committees on Venereal Diseases, Drug Addictions, Alcoholic Control, Public Health Nursing, Tuberculosis, and Health Statistics,* in coöperation with the Army, the Navy, the Public Health Service, the American Red Cross, and civilian health agencies.

Committee on Industrial Medicine and Surgery.† On January 28, 1918, a conference was called by the chairman of the General Medical Board to consider the medical care and sanitation of industrial workers. A committee was appointed which included representatives of the Departments of Agriculture, Commerce, Interior, Labor, and the U. S. Public Health Service; and of industry, manufacturers, and the medical profession.

The committee recognized that the state of war made it imperative:

1. To provide against unnecessary human waste in industry and society during the war;
2. To offset the drain on industry of man power caused by the raising of military forces;
3. To meet the need for greatly increased production;
4. To avoid preventable deaths and disabilities from accident and disease;
5. To restore sick and injured workers to full producing power in the shortest possible time;
6. To increase output by keeping workers in good health;
7. To provide healthful places in which to work;
8. To provide healthful homes and communities in which to live;
9. To meet shortage of medical service inducted by military needs.

A definite, comprehensive program was outlined for the care of industrial workers which upon recommendation of the Council of National Defense, on July 1, 1918, was referred to the U. S. Public Health Service for execution.

Committee on Legislation.‡ At the outset, this committee interested itself in the safeguarding of the troops from vice in the zones around camps and cantonments. Section 13 of the Army bill of 1917 was drafted after an all day Sunday session in April, 1917. It was presented to the Executive Committee of the General Medical Board on the following day and endorsed. Two days later it was approved by the Council of National Defense, and ten days after the preparation of the first rough draft, it was enacted into law.

*See Appendixes 15 to 20 for personnel of these Sub-committees.
†See Appendix 21 for personnel of the Committee.
‡See Appendix 22 for personnel of the Committee.

After considerable negotiation with the Federal Trade Commission, license to manufacture salvarsan and other German owned medicinal preparations was given to American concerns.

This committee aided greatly in bringing about the enactment of legislation through which the Medical Department of the U. S. Army was placed on the same footing in regard to rank as the other branches of the Army.*

Committee on Medical Schools.† Steps were taken to survey the medical school situation in an effort to conserve the future supply of medical men by inducing students to continue their medical education so that trained rather than untrained services might be at the disposal of the Government.

Medical schools were urged to reduce their faculties to a minimum, and release as many teachers as possible for enrollment in the Medical Reserve Corps. Third and fourth year students subject to the draft were allowed to enlist in the Enlisted Medical Reserve Corps and placed on inactive duty, to enable them to complete their medical education, with the understanding that they would apply for commissions in the Reserve Corps upon graduation. It was planned to allow fourth year students to substitute the senior year in base hospitals instead of school if the emergency demanded.

Presidents of universities and colleges were asked to advise premedical students to enroll in the medical schools of their choice as soon as possible.

Committee on Nursing.‡ The nursing resources of the country were coördinated in such a way as to be of greatest value to the military medical departments. The survey showed 98,162 graduate nurses, in addition to 14,387 graduates in 1918. Through the direct appeal of the committee, a total of 13,881 student nurses were recruited up to December 15, 1918. Twenty-two thousand seven hundred and thirty-six nurses were enrolled in the Nursing Corps of the Army, Navy, and Red Cross to July 2, 1918.

On recommendation of the committee, the Surgeon General of the Army appointed Miss Annie Goodrich to act as Inspector General of

*See also "Increased Rank for Medical Officers," pages 379–382.
†See Appendix 23 for personnel of the Committee.
‡See Appendix 24 for personnel of the Committee.

Nursing Service in the United States and France. The benefits of the war-risk insurance law were secured for nurses, an effort was made to obtain relative military rank for members of the Army Nurse Corps, and valuable data were assembled for the War Department's reconstruction program.

The Sub-committee on Public Health Nursing* coöperated in a plan submitted to manufacturers' associations and trade organizations, designed to increase the number of public health and industrial nurses to meet war-industry needs. Miss Mary E. Lent was appointed by the Surgeon General of the Public Health Service as a member of his staff, to superintend public health nursing in the extra cantonment zones.

Committee on Rehabilitation of Maimed and Crippled.† On the recommendation of the committee, the chairman of the General Medical Board presented to the Secretary of War a plan for the formation of a reconstruction board, upon which would be represented the U. S. Army, the U. S. Navy, the U. S. Public Health Service, American Red Cross, Council of National Defense, hospitals and laboratories, medicine and surgery, vocational education, labor and industry. The Secretary of War instructed the Surgeon General to call a conference in Washington on January 14, 1918, to which representatives of the departments interested were invited for purpose of formulating a definite plan of action.

A bill was drafted which provided for the vocational rehabilitation and return to civil employment of soldiers and sailors disabled in line of duty, but it was not submitted to Congress. Instead a bill known as the Smith-Sears Act was passed on June 27, 1918, and the re-education of wounded soldiers and sailors was placed under the supervision of the Bureau of War Risk Insurance and the Federal Board for Vocational Education.

Committee on Research.‡ The activities of the Committee on Research, which were conducted in coöperation with the National Research Council, were of invaluable assistance to the Medical Departments of the Army and Navy in investigating, through the

*See Appendix 17 for personnel of the Sub-committee.
†See Appendix 26 for personnel of the Committee.
‡See Appendix 27 for personnel of the Committee.

laboratories available for the purpose, the vast number of medicinal preparations and appliances which were submitted to the Army and Navy by private individuals and firms. Every product or appliance received careful investigation, and a report was made to the department interested, with recommendations as to its adoption if applicable to military needs, or final rejection.

*Committee on Standardization of Medical and Surgical Supplies and Equipment.** Because of the enormously increased demands on manufacturers of medical and surgical supplies to meet military needs, the committee was authorized on February 2, 1917, to standardize essential medical and surgical supplies and equipment, and to increase speed and reduce the cost of production.

Sub-committees representing the productive capacity of various articles were selected by the manufacturers themselves and rendered valuable service. The manufacturers coöperated heartily, giving freely of their time, and willingly adapting their facilities to the Government needs, the result being a substantial increase in the production of staple articles sufficient to meet the enormously increased requirements of the Army and Navy. The manufacturers' committees acted until the fall of 1917, when they were reorganized as committees of their respective trades.

The activities of the committee were largely taken over by the War Industries Board, Lt. Col. Simpson, chief of the Medical Section, having been named as chief of the Section of Medical Industry of the Board on May 30, 1918.

Committee on States Activities.† The efforts of this committee were primarily concentrated on supplementing the activities previously initiated by the Committee on Medicine to increase enrollment of medical men throughout the country in the Medical Reserve Corps of the U. S. Army and the U. S. Navy, through patriotic meetings and by correspondence.‡ The medical profession was classified according to availability for service in the Reserve Corps, and those not available because of home needs. Complete data as to the professional experience of physicians were tabulated, card indexed, and classified.

*See Appendix 28 for personnel of the Committee.
†See Appendix 29 for personnel of the Committee.
‡See also "Recruiting Medical Officers for the Army and Navy," pages 378-379.

Letters were sent urging county committees personally to interview physicians who could be spared, and to medical graduates of 1914 to 1917, urging enrollment. Methods to protect the practice of physicians called to the service were suggested to local medical societies. Candidates rejected for slight physical defects were urged to adopt means to correct such defects. Support of State and county committees was enlisted in behalf of the bill for increased rank for medical officers of the Army. The other committees of the General Medical Board were aided in putting into effect within the states the various programs that were adopted.

*Committee on Surgery.** The records of the members of the Medical Reserve Corps were classified according to professional and military qualifications, supplemented by confidential data as to availability for certain appointments in military service. The combined information was transferred to code cards, one set of which was retained in the office of the Council of National Defense, one set was forwarded to the Surgeon General's office, and a third set was sent to General Pershing's headquarters in France.

The Sub-committee on Ophthalmology† standardized methods of eye examinations, coöperated in plans for reëducation of blind soldiers, surveyed workshops for the blind, ascertained the number of artificial eyes in stock in the United States, and investigated the manufacture of glass used in binoculars, field glasses and range finders, and optical glasses used for aviators' and ambulance drivers' goggles.

The Sub-committee on Otology, Rhinology and Laryngology‡ aided in revising the requirements as to hearing for eligibility in the Army, and in the assembling of tests for malingerers. Ear protectors for use in the service were tested for the Army, and a report was made to the Surgeon General's office in regard to the reconstruction of defects in hearing and speech. Oto-laryngological instruments were standardized.

The Committee on Head Surgery§ prepared plans for special hospitals and dispensary buildings in cantonments for the treatment of eye, ear, nose and throat cases, and recommended that specialists

*See Appendix 30 for personnel of the Committee.

†See Appendix 32 for personnel of the Sub-committee.

‡See Appendix 33 for personnel of the Sub-committee.

§A joint committee of the Sub-committees on Ophthalmology, and Otology, Rhinology, and Laryngology.

trained along certain lines be assigned to special duty in military hospitals.

*Committee of Women Physicians.** A comprehensive survey was made of the 5,989 women doctors of the United States, of whom 5,788 were in active practice in 1918. Endorsed lists of anæsthetists, laboratory workers, radiographers, and sanitarians were prepared with the assistance of experts in each line. Women physicians were recommended for service as contract surgeons in the Army—for duty with the U. S. Public Health Service, and to fill places in institutions and communities left vacant by the withdrawal of doctors who were eligible for military service.

The committee coöperated to the fullest extent with the Volunteer Medical Service Corps. Fifty per cent of the women physicians recorded as being in active practice applied for membership in the Corps.

*See Appendix 34 for personnel of the Committee.

34

GEORGE W. CRILE

I. Captured by His Enthusiasm. II. His Career and Personality. III. His War Record. IV. Cleveland Clinic Foundation.

I

GEORGE W. CRILE, of Cleveland, had been heard of as far west as Chicago within a few years of his graduation, for in 1890 those of us interested in organized medicine thought well enough of him to take a chance and to invite him to read a paper on "Shock" before the Chicago Medical Society.

He came. He was a young man under thirty years of age, handsome as a prince, with an enthusiasm that fairly took our breath, and with a convincing manner that captivated us, old and young. And though more than forty years have passed, I have even now a vivid recollection of the favorable scene that he enacted in our midst on that evening.

II

George Crile is one of the most interesting and fascinating characters in the medical profession. He is an individualist by nature, and was recognized as an independent worker of distinction within two years after he received his degree of doctor of medicine from Wooster University (now Western Reserve University School of Medicine) in 1887. He is a man of unusual initiative, and an ardent researcher; but with it all, he has a balance and an intelligence that make him realize the importance of the practical and of the conventional.

By self-discipline, he has become one of the leading surgical technicians of his time. Among his original contributions to medicine and surgery are his discovery of a system of blood transfusion; his aid in proving the value of adrenalin as a medicine; his perfection of the



GEORGE W. CRILE

"nerve block" system of anesthesia, whereby the field of operation is physiologically isolated and emotional activities are controlled, and certain operations made possible without the usual shock and perilous exhaustion to the nervous system; the denervation of the adrenal glands as a dekineticizing operation in certain diseases. He is one of the world's great humanitarians, for he has contributed much toward lessening pain and suffering in illness and operations.

Through his painstaking experiments, he proved that in shock definite changes occur in the cells of the brain which discharge all of the energy which they had stored. Deeply interested in "the nature of life itself," in his book, "A Bipolar Theory of Living Processes" (1926), he propounded the theory that "man and animals are mechanisms driven by electricity and were originally created and constructed by electrical forces"; "man or animal is an energy phenomenon"; "the processes which distinguish the living from the non-living are due to electrical forces. Electricity keeps the flame of life burning in the cell—the unit of structure and of function in the animal organism. Life, as we view it, is the expression of the activity of this automatic mechanism."

It is an inspiration to see Crile at work in his clinic and laboratory, and to listen to him develop his theories of nature and of life; the origin and nature of the emotions; of man as an adaptive mechanism; the kinetic drive; the physical interpretation of shock, of exhaustion, and of restoration. He is a man of exceptionally broad knowledge, and a rare combination of physicist, pathologist, biologist, anatomist, philosopher, chemist, naturalist, physician, and surgeon. Practically all of Crile's voluminous writings—articles and books—deal with subjects which are the result of his independent thinking and his personal research.

He has been a busy man, and he has done much to support scientific medicine. He was one of the organizers and enthusiastic supporters of the American College of Surgeons, a Regent from its beginning, its second President, and Chairman of the Board of Regents for the past ten years.

III

His war record is an enviable one. He was Brigade Surgeon of Volunteers, with the rank of major, in Cuba and Porto Rico during the

Spanish-American War. He organized and took to France a small surgical unit in 1914, taking service at the American Ambulance at Neuilly. The Lakeside Base Hospital Unit, of which he was the organizer and director, was the first of our forces to go overseas. He served with the Unit until May of 1918, when he became senior consulting surgeon in research in the American Expeditionary Forces. He was decorated by his own government, Great Britain, and France; and he has been honored by many universities at home and abroad.

IV

The Cleveland Clinic Foundation, which Dr. Crile and his associates established in 1921, is one of the leading clinics of the world. It controls a large hospital, and a separate research building equipped with every type of scientific apparatus. The Clinic, with its accompanying departments, is supported by an endowed foundation, organized for permanency, and is a popular mecca for visiting surgeons the world over.

Standing loyally at the side of her genius husband during the many happy years since 1900, is Grace McBride Crile. They are always an inspiration, and their enthusiasm never wanes.

35

WILLIAM CRAWFORD GORGAS

I. The Panama Canal. II. Sanitation in Havana. III. Yellow Fever Eradication in Panama. IV. President Theodore Roosevelt Supports Gorgas. V. Results of Sanitation in Panama. VI. The Gorgas Memorial. VII. Objects of the Memorial. VIII. Program of Personal Health Education. IX. Periodic Health Examination. X. Gorgas Memorial Essay Contests. XI. Gorgas Memorial Laboratory, Panama, Republic of Panama. XII. Present Officers of the Gorgas Memorial Institute of Tropical and Preventive Medicine.

I

A DAY to remember—August 16, 1914—when the first trade ship, the "Pleiades," passed through the Panama Canal in eight hours, thus making possible a complete journey from San Francisco to New York in thirty days, instead of the customary sixty-five days via Cape Horn.

As the ship coursed through the Canal, there were on all sides innumerable evidences of the stupendous engineering feat; but there were no visible reminders of the greatest achievement in the annals of preventive medicine—the conquest of yellow fever by William Crawford Gorgas—which made possible the building of the Panama Canal.

II

It was in 1900 that Gorgas was in close contact with the investigation into the course of yellow fever that was being conducted in Havana by the Walter Reed Board. The memorable discovery made by this board revealed the cause of the disease; but it was Gorgas who applied these principles and effected the eradication of yellow fever from Havana.*

*See pages 261–264.

III

After making a survey of sanitary conditions in Panama, at the request of the Government, in April, 1904, General Gorgas was ordered to report to the Panama Canal Commission as the chief sanitary officer for the Isthmus. He was authorized to employ a certain number of men for the preliminary work, and given an appropriation of $50,000. On May 4, the French company formally transferred the Canal property to the United States, and early in June the work began.

From the beginning Gorgas was hampered by politics until "finally, in June, 1905, the governor and chief engineer, members of the executive committee of the commission, united in a recommendation to the secretary of war that the chief sanitary officer and Dr. Carter, and those who believed with them in the mosquito theory, should be relieved, and men with more practical views be appointed in their stead. They stated that the sanitary authorities had visionary ideas with regard to the course of yellow fever and no practical methods even for carrying their ideas into effect."*

Here is where Gorgas demonstrated that he had the courage of his convictions. It would have been an easy matter, and a course sanctioned by general usage in political affairs, for General Gorgas, in these months of obstruction caused by the ignorance of superior officials, to have compromised and resorted to makeshifts to curry favor with his superior in rank. By these means he might have gained temporary advantage. But Gorgas was too honest to pursue such a course, and it would have been incompatible with his direct way of doing things.†

IV

"Fortunately, the then President of the United States [Theodore Roosevelt] had been in office when the work at Havana had been done by us," says Gorgas. "He told the commission that the mosquito theory had been established beyond peradventure. . . . He declined to sanction the change recommended, and directed that every possible support and assistance be extended to the sanitary officials."*

*"Sanitation in Panama," by William Crawford Gorgas.
†"Gorgas," by Franklin Martin, M.D., Chicago.

About this time Mr. John F. Stevens was appointed chief engineer of the commission and he recommended that the sanitary department should be made an independent bureau and report directly to himself.

With full authority granted to Gorgas and his aids a repetition of the remarkable accomplishments in Havana came to Panama.

During the Fall of 1905, yellow fever rapidly decreased, and by November, the last case of this disease had occurred in Panama.

Result of the Campaign against Malaria. When yellow fever had been conquered, attention was given to the elimination of the Anopheles mosquito, which is the means of transmission of malaria, with the following result:

In 1906, of every thousand patients admitted to the Canal Zone hospitals 821 had malaria. In 1907, this number in each one thousand was reduced to 426 malaria cases; and in 1913, to the small number of 76.

V

Result of Sanitation in Panama. "During the ten years of construction, we lost by death 17 out of every thousand of our employees each year. That is, from the whole force of 39,000 men, 663 died each year, and for the whole construction period we lost 6,630 men. If sanitary conditions had remained as they had been previous to 1904, and we had lost as did the French, 200 of our employees out of each thousand on the work, we should have lost 7,800 men each year, and 78,000 during the whole construction period."*

Thus the Gorgas sanitary program saved the difference between the 78,000 estimated deaths under the old régime, and the actual 6,630 deaths under the new, or a total of 71,370.

Economic Value of Sanitation in Panama. Actual figures show that the work of General Gorgas saved the United States $80,000,000, taking into consideration the loss that would have occurred on account of poor morale, and the excessive wages that would have been demanded under less favorable health conditions, in addition to the hospital days saved.

*"Sanitation in Panama," by William Crawford Gorgas.

VI

Major General William Crawford Gorgas died in London on July 3, 1920, after an illness of several weeks. Gorgas was simple in character, a lover of men, and he had a broad vision of the fundamentals of the intricate discoveries of science. By the simple application of a plan which he conceived, he wrought a miracle that for all time will enrich the world.

His untimely death was a great shock to his legion of friends, and a personal loss to me because of my friendship and admiration for him, and my close association with him during the World War. Simultaneously, a group of his friends, prompted by their mutual love for the great chief, expressed a wish to perpetuate his memory by a symbol of his greatness whereby his devoted followers could continue his work as he himself would have desired.

Preliminary negotiations were under way, when Panama's President, Belisario Porras, proposed a concrete plan which included a site in Gorgas' beloved Panama, to be given by the Panaman government, and a proposed building to house an Institute of Tropical Medicine. Admiral William C. Braisted, the wartime Surgeon General of the U. S. Navy, was chosen as President of the Gorgas Memorial association, and I was one of the seven Directors.

"The Gorgas Memorial Institute of Tropical and Preventive Medicine" was incorporated on October 20, 1921 "to conduct, assist, and encourage investigations in the sciences and arts of hygiene, medicine and surgery, and allied subjects, in the nature and causes of disease, and the methods of its prevention and treatment; and to make knowledge relating to these various subjects available for the protection of the health of the people and the improved treatment of disease and injury. . . ."

VII

The objects of the Gorgas Memorial are:

1. Eliminate unnecessary illness.
2. Prolong life, make it healthier, more productive, and enjoyable.
3. Check many diseases before they reach the incurable stage.

4. Eradicate tropical diseases, open up territories of unlimited wealth and add enormously to the world's assets.
5. Eradicate pestiferous and disease-bearing mosquitoes (malaria alone exacts an annual toll of $100,000,000).
6. Build up the 25,000,000 youths and adults in the United States now physically below par.
7. Lay the foundation for healthier future generations.
8. Have every individual submit to a periodic health examination by his family physician, who should be the custodian of personal health.
9. Prevent disease, and thereby—
   a. Relieve the nation of $1,500,000,000 of its annual sick bill.
   b. Prevent the present annual loss of 350,000,000 hours of time caused by preventable illness of 42,000,000 employees.
   c. Save the $3,000,000,000 lost annually through reduced earning power.
   d. Save 750,000 lives annually.
10. Bring about a liaison between the public and the scientific medical and dental professions, the real health authorities.
11. Free all the world from preventable disease, to which purpose the life of Gorgas was consecrated.

VIII

The program of personal health education of the Gorgas Memorial carries on in a permanent way the work so ably started by Gorgas. As Surgeon General of the United States Army during the World War, responsible for the health and physical well being of 4,500,000 men, he applied proper preventive and curative measures, and proved the value of periodic health examination.

IX

General Gorgas once said, "Why not apply this periodic health examination to all people in civil life?"

If the people of the United States would voluntarily insist that they be given a scientific medical examination by their family physician once a year, preferably on their birthdays, the same health miracle would be wrought in civil life that General Gorgas accomplished with his four and a half million men.

The Gorgas Memorial Institute has taken leadership in the program of *personal health* so that all people may have the advantage of every discovery in the prevention of disease and the cure of illness.

X

One of the chief activities in the program of personal health education is the health essay contest which is annually sponsored in all high schools of the country by the Gorgas Memorial Institute. These contests, with a subject relating to some phase of health and sanitation, are becoming increasingly popular in the schools and among the parents and health workers of the country. Mr. Charles R. Walgreen, President of the Walgreen Company, Chicago, Illinois, was the donor of the prizes in the first three contests; and Mr. Henry L. Doherty, President of the Henry L. Doherty Company, New York, then assumed the rôle of donor.

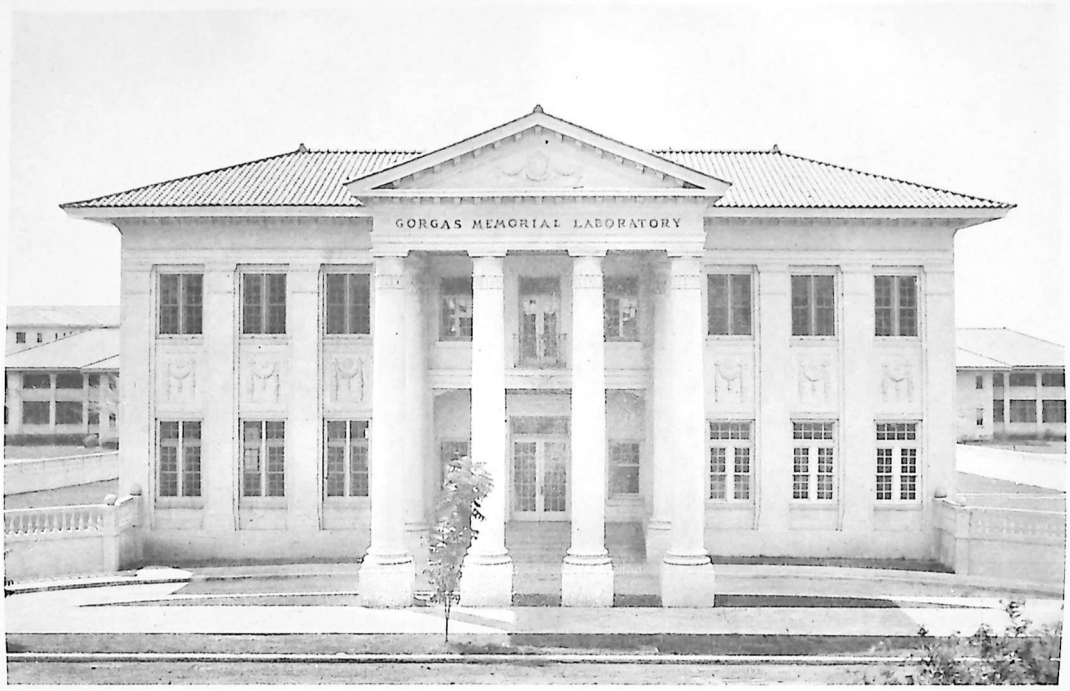
The winner of the first national prize receives a travel allowance for a trip to Washington, D. C., to receive the award of five hundred dollars which is presented by the President of the United States at the White House, in his capacity of Honorary President of the Gorgas Memorial Institute.

XI

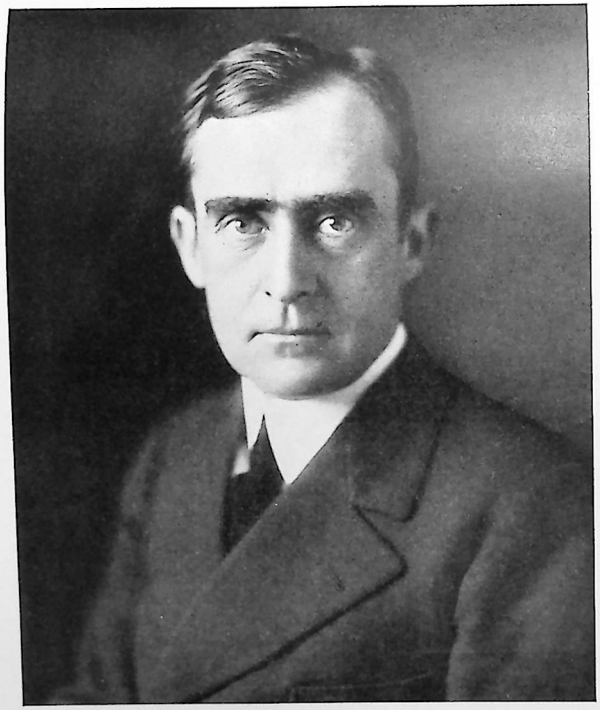
An Act to authorize a permanent annual appropriation for the maintenance and operation of the Gorgas Memorial Laboratory" was passed by both Houses of the U.S. Congress, and became a law when it was signed by President Coolidge on May 27, 1928. It reads in part as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby authorized to be permanently appropriated for each year, out of any money in the Treasury not otherwise appropriated, the sum of $50,000, to be paid to the Gorgas Memorial Institute of Tropical and Preventive Medicine, Incorporated, for the maintenance and operation by it, of a laboratory to be known as the Gorgas Memorial Laboratory. . . ."

On authorization of the Gorgas Memorial Institute, in August, 1928, I proceeded to Panama with Lieut. Colonel J. F. Siler (a member of the Scientific Board) to perfect arrangements for temporary laboratory



RESEARCH LABORATORY OF THE GORGAS MEMORIAL INSTITUTE OF TROPICAL AND PREVENTIVE MEDICINE, PANAMA



REAR ADMIRAL CARY T. GRAYSON
President, Gorgas Memorial Institute



HERBERT C. CLARK
Director, Gorgas Memorial Laboratory, Panama

accommodations that would serve for the initial work of the Institute. On August 25, 1928, the Government of Panama made available for the immediate use of the Institute a building which had been constructed to house the Medical School of Panama. This building is of dignified and pleasing architecture and is in every way suited to the purposes of the Gorgas Memorial Laboratory. Formal deed to the property was executed on April 9, 1931. Thus did the Republic of Panama show its true appreciation of Gorgas.

On November 13, 1928, Dr. Herbert C. Clark, formerly of the United Fruit Company, was appointed director of the Gorgas Memorial Laboratory, effective January 1, 1929. Under his able leadership, the Laboratory is already recognized as an international research center of repute.

It has been gratifying to note that the various United States government services have coöperated by assigning some of their scientific staff members to tours of duty at the Laboratory. Representatives of the scientific bureaus of the United States Public Health Service, the Navy Medical Corps and the Army Medical Corps are at work there on certain problems, the results of which are of interest not only to the Panama Canal and the United States government, but to the entire program of the Gorgas Memorial Laboratory. Valuable assistance has also been received from the Panama Canal, the United Fruit Company, the Standard Fruit and Steamship Company, the Bureau of Animal Industry of the United States Department of Agriculture and the Museum of Comparative Zoölogy at Harvard University.

Doctor Clark and his staff have given valuable assistance to visiting scientists on tours of from a few weeks to several months from the University of Chicago, Johns Hopkins University, University of California, Tulane University, Cornell University, Harvard University, and the University of Rochester.

XII

The present officers of the Gorgas Memorial Institute are:

Honorary President: Hon. Franklin D. Roosevelt.
President: Rear Admiral Cary T. Grayson, M.C., U.S.N. (Ret.)
Chairman, Board of Directors: Franklin Martin, M.D.

Vice-President: C. Jeff Miller, M.D.
Treasurer: Robert V. Fleming.
Assistant Treasurer: A. M. Nevius.
Secretary: W. H. G. Logan, D.D.S., M.D.
Attorney: Silas Strawn.
Executive Committee: Franklin Martin, M.D., Chairman
Cary T. Grayson, M.D.
Bowman C. Crowell, M.D.
Richard W. Hynson
Major General Merritte W. Ireland, M.C., U.S.A. (Ret.)
Hon. Leo. S. Rowe
Hugh Hampton Young, M.D.

APPENDIX

1. COMMITTEE OF AMERICAN PHYSICIANS FOR MEDICAL PREPAREDNESS

*William J. Mayo, Chairman
*Frank F. Simpson, Secretary
Frank Billings
John F. Binnie
Joseph C. Bloodgood
*George E. Brewer
*George W. Crile
*J. M. T. Finney
Charles L. Gibson
*Robert G. LeConte
*Fred B. Lund
Edward Martin
*Franklin H. Martin
Rudolph Matas
Charles H. Mayo
Lewis S. McMurtry
John B. Murphy
Albert J. Ochsner
Charles A. Porter
Charles A. L. Reed
Emmet Rixford
Hubert A. Royster
George E. de Schweinitz
Henry Sewall
Richard P. Strong
*William S. Thayer
*Albert Vander Veer
Victor C. Vaughan

Ex-officio:

W. C. Gorgas, Surgeon General, United States Army.
W. C. Braisted, Surgeon General, United States Navy.
Rupert Blue, Surgeon General, United States Public Health Service.
Colonel Jefferson R. Kean, Director General of Military Relief, American National Red Cross.
Major Robert E. Noble.
President, American Medical Association.
President, American Surgical Association.
President, Congress of Physicians and Surgeons of North America.
President, Clinical Congress of Surgeons of North America.
President, American College of Surgeons.

2. GENERAL MEDICAL BOARD OF THE COUNCIL OF NATIONAL DEFENSE AND MEDICAL SECTION OF ADVISORY COMMISSION

†Franklin H. Martin, M.D., Chicago, Ill., member of Advisory Commission, Council of National Defense, Chairman.
†F. F. Simpson, M.D., Pittsburgh, Pa., chief of medical section, Council of National Defense, Vice Chairman.
†Surg. Gen. William C. Gorgas, United States Army.
†Surg. Gen. William C. Braisted, United States Navy.
†Surg. Gen. Rupert Blue, United States Public Health Service.
†Col. Jefferson R. Kean, director of military relief, American Red Cross.
†Rear Adm. Cary T. Grayson, United States Navy, Washington, D. C.
†William J. Mayo, M.D., Rochester, Minn., president, American College of Surgeons.

*Executive Committee.
†Members of original General Medical Board.

†Victor C. Vaughan, M.D., dean of medical department, University of Michigan, Ann Arbor, Mich.
†William H. Welch, M.D., professor of pathology, Johns Hopkins University, Baltimore, Md.
†Frederic A. Besley, M.D., professor of surgery, Northwestern University, Chicago, Ill.
†Hermann M. Biggs, M.D., State commissioner of health, New York City.
Frank Billings, M.D., professor of medicine, Rush Medical College, Chicago, Ill.
John Fairbairn Binnie, M.D., recorder, American Surgical Association, Kansas City, Mo.
Joseph C. Bloodgood, M.D., associate professor of surgery, Johns Hopkins University, Baltimore, Md.
James Bordley, Jr., M.D., surgeon in charge, South Baltimore Eye Hospital, Baltimore, Md.
Elliott G. Brackett, M.D., assistant professor of orthopedic surgery, Harvard Medical School, Boston, Mass.
†George E. Brewer, M.D., professor of surgery, Columbia University, New York City.
†John Young Brown, M.D., professor of surgery, University of St. Louis, St. Louis, Mo.
Alexis Carrel, M.D., member of staff, Rockefeller Institute for Medical Research, New York City.
John G. Clark, M.D., professor of gynecology, University of Pennsylvania, Philadelphia, Pa.
Frederic J. Cotton, M.D., associate in surgery, Harvard Medical School, Boston, Mass.
Alexander R. Craig, M.D., secretary, American Medical Association, Chicago, Ill.
†George W. Crile, M.D., professor of surgery, Western Reserve University, Cleveland, Ohio.
Thomas S. Cullen, M.D., vice president, Southern Surgical Association, Baltimore, Md.
†Edward P. Davis, M.D., professor of obstetrics, Jefferson Medical College, Philadelphia, Pa.
Katherine B. Davis, M.D., executive secretary, Bureau of Social Hygiene, Rockefeller Foundation, New York City.
John B. Deaver, M.D., professor of practice of surgery, University of Pennsylvania, Philadelphia, Pa.
Robert L. Dickinson, M.D., first vice president, American Gynecological Society, Brooklyn, N.Y.
Philip Schuyler Doane, M.D., Chicago, Ill., director of health and sanitation, United States Shipping Board.
Joseph Rilus Eastman, M.D., president, Western Surgical Association, Indianapolis, Ind.
William A. Evans, M.D., president, American Public Health Association, Chicago, Ill.
†Duncan Eve, Sr., M.D., president, Southern Medical Association, Nashville, Tenn.
†John M. T. Finney, M.D., professor of clinical surgery, Johns Hopkins University, Baltimore, Md.

†Members of original General Medical Board.

†Simon Flexner, M.D., director, Rockefeller Institute for Medical Research, New York City.
†Joseph M. Flint, M.D., professor of surgery, Yale University, New Haven, Conn.
Joel E. Goldthwait, M.D., lecturer on orthopedics, Harvard Medical School, Boston, Mass.
S. S. Goldwater, M.D., superintendent, Mount Sinai Hospital, New York City.
William D. Haggard, M.D., professor of surgery, Vanderbilt University, Nashville, Tenn.
S. McC. Hamill, M.D., professor of pediatrics, University of Pennsylvania, Philadelphia, Pa.
Hobart Amory Hare, M.D., professor of therapeutics, materia medica, and diagnosis, Jefferson Medical College, Philadelphia, Pa.
Malcolm L. Harris, M.D., secretary, Board of Trustees, American Medical Association, Chicago, Ill.
Seale Harris, M.D., secretary, Southern Medical Association, Birmingham, Ala.
†Thomas W. Huntington, M.D., professor of surgery, University of California, San Francisco, Cal.
Jabez N. Jackson, M.D., Christian Church Hospital, Kansas City, Mo.
†Theodore Janeway, professor of medicine, Johns Hopkins University, Baltimore, Md.
Henry D. Jump, M.D., assistant physician, Philadelphia General Hospital, Philadelphia, Pa.
†Charles E. Kahlke, M.D., professor of surgery, Hahnemann Medical College, Chicago, Ill.
Allen B. Kanavel, M.D., associate professor of surgery, Northwestern University, Chicago, Ill.
†Edward C. Kirk, D.D.S., dean of dental department, University of Pennsylvania, Philadelphia, Pa.
George W. Kosmak, M.D., attending surgeon, Lying-In Hospital, New York City.
John H. Landis, M.D., health commissioner, Cincinnati, Ohio.
John A. Lichty, M.D., professor of medicine, University of Pittsburgh, Pittsburgh, Pa.
†W. H. G. Logan, M.D., D.D.S., president-elect, National Dental Association, Chicago, Ill.
Fred Bates Lund, M.D., lecturer on surgery, Harvard Medical School, Boston, Mass.
Joseph MacDonald, Jr., secretary-treasurer, American Medical Editors' Association, New York City.
†Edward Martin, M.D., professor of surgery, University of Pennsylvania, Philadelphia, Pa.
†Charles H. Mayo, M.D., Rochester, Minn., president, American Medical Association.
†Stuart McGuire, M.D., dean and professor of surgery, Medical College of Virginia, Richmond, Va.
John D. McLean, M.D., member of staff, Rush Hospital, Philadelphia, Pa.
Lenna L. Meanes, M.D., Des Moines, Iowa.
C. Jeff Miller, M.D., professor of obstetrics and clinical gynecology, Tulane University, New Orleans, La.

†Members of original General Medical Board.

Rosalie Slaughter Morton, M.D., chairman, American Women's Hospitals, New York City.
M. Adelaide Nutting, professor of nursing and health, Teachers' College, Columbia University, New York City.
Albert J. Ochsner, M.D., professor of surgery, University of Illinois, Chicago, Ill.
†Charles H. Peck, M.D., professor of surgery, Columbia University, New York City.
Charles B. Penrose, M.D., professor of gynecology, University of Pennsylvania, Philadelphia, Pa.
Prof. Earle B. Phelps, sanitary engineer, Washington, D.C.
Emmet Rixford, M.D., professor of surgery, Stanford University, San Francisco, Cal.
†Hubert A. Royster, M.D., secretary, Southern Surgical Association, Raleigh, N. C.
†Sterling Ruffin, M.D., professor of medicine, George Washington University, Washington, D. C.
C. E. Sawyer, M.D., member executive committee, American Institute of Homeopathy, Marion, Ohio.
George E. de Schweinitz, M.D., professor of ophthalmology, University of Pennsylvania, Philadelphia, Pa.
Clara P. Seippel, M.D., Chicago, Ill.
†George H. Simmons, M.D., editor, "Journal of American Medical Association," Chicago, Ill.
†Winford H. Smith, M.D., superintendent, Johns Hopkins Hospital, Baltimore, Md.
†William F. Snow, M.D., professor of public health, Stanford University, San Francisco, Cal., Secretary, General Medical Board.
J. Bentley Squier, M.D., professor of urology and genito-urinary surgery, Columbia University, New York City.
George David Stewart, M.D., professor of surgery, New York University and Bellevue Hospital Medical College, New York City.
†Richard P. Strong, M.D., professor of tropical medicine, Harvard University, Boston, Mass.
†William S. Thayer, M.D., president, Congress of Physicians and Surgeons of North America, Baltimore, Md.
†William B. Van Lennep, M.D., professor of surgery, Hahnemann Medical College, Philadelphia, Pa.
†George Walker, M.D., associate in surgery, Johns Hopkins University, Baltimore, Md.
Florence N. Ward, M.D., chief surgeon, Florence N. Ward Sanatorium, San Francisco, Cal.
Ray L. Wilbur, M.D., president, Stanford University, San Francisco, Cal.
†William C. Woodward, M.D., health officer, District of Columbia, Washington, D. C.
Hubert Work, M.D., Pueblo, Colo., chairman, House of Delegates, American Medical Association.

HONORARY MEMBERS

Col. C. U. Dercle, Medical Department, French Army, Paris, France.
Lieut. Gen. Thomas H. Goodwin, director general, British Army Medical Service, London, England.

†Members of original General Medical Board.

Col. Claude K. Morgan, British Army Medical Service, London, England.
Julius Rosenwald, member of Advisory Commission, Council of National Defense, Chicago, Ill.

COMMITTEES OF GENERAL MEDICAL BOARD OF COUNCIL OF NATIONAL DEFENSE

(The Chairman and Vice Chairman of the General Medical Board were members of all committees.)

3. EXECUTIVE COMMITTEE

Franklin H. Martin, M.D., Chicago, Ill., Chairman.
F. F. Simpson, M.D., Pittsburgh, Pa., Vice Chairman.
Frederic A. Besley, M.D., Chicago, Ill.
Surg. Gen. William C. Gorgas, U. S. A., Washington, D. C.
Surg. Gen. William C. Braisted, U. S. N., Washington, D. C.
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35. OFFICERS, MEDICAL CORPS, U. S. NAVY*
NOVEMBER 1, 1916 TO DECEMBER, 1918

	Medical Officers U. S. Navy Medical Corps		Medical Officers U. S. Naval Reserve Force
November 1, 1916	329	September 20, 1917	718
December	329	October 29	741
January, 1917	329	November 28	771
February	352	December 29	779
March	352	January 28, 1918	782
April	397	February 25	827
May	397	March 27	861
June	488	April 28	988
July	756	May 28	1,253
August	756	June 27	1,415
September	756	July 29	1,586
October	756	August 29	1,405
November	831	September 30	1,568
December	831	October 28	1,690
January, 1918	850†	December 10	1,720

*From Surgeon General Charles E. Riggs, U. S. Navy.

†Between January, 1918, and the signing of the armistice no officers were commissioned in the permanent establishment but were enrolled in the Reserve, or commissioned for temporary service.

36. OFFICERS, MEDICAL CORPS, U. S. ARMY*
OCTOBER, 1916 TO DECEMBER, 1918

	Regulars	Reserve on Active Duty	Medical Corps National Guard	Medical Corps National Army	Total
June 30, 1916	146				
October, 1916	440				
November	440				
December	439				
January, 1917	496	215			
February	496	255			
March	496	301			
April	492	342			
May	488	1,838			
		Active and Inactive			
June 30, 1917	485	4,855			
July	485	8,319			
August	529	9,999	1346—mustered in Aug. 5, 1917		
September	532	12,905		4	
October	533	14,544		4	
November	534	14,901		4	
December	774	15,505		4	
		Active			
January, 1918	776	12,855	1,156	6	14,793
February	751	13,909	1,202	61	15,923
March	826	15,174	1,229	93	17,322
April	843	16,359	1,204	111	18,517
May	868	17,343	1,199	151	19,561
June	877	18,298	1,196	297	20,668
July	929	20,381	1,199	360	22,869
August	932	22,469	1,192	371	24,964
September	930	†	†	†	25,984
October	924	†	†	†	27,240
November 15	989	†	†	†	30,591‡

*From Surgeon General Merritte W. Ireland, U. S. Army.

†The above were consolidated by General Order 73, August 7, 1918. The total includes the number shown for Regulars.

‡13,925 members of Medical Corps in France in December, 1918.

37. AMERICAN RED CROSS ARMY BASE HOSPITALS*†

No.	Parent Institution	Location in A.E.F.	Director
1	Bellevue Hospital New York City	Vichy, Allier	Dr. Edward L. Keyes
2	Presbyterian Hospital New York City	Etretat, Seine Inférieure	Dr. George E. Brewer
3	Mount Sinai Hospital New York City	Vauclaire, Dordogne	Dr. N. E. Brill
4	Lakeside Hospital Cleveland, Ohio	Rouen, Seine Inférieure	Dr. George W. Crile
5	Harvard University Boston, Mass.	Boulogne sur Mer, Pas de Calais	Dr. Harvey Cushing
6	Massachusetts General Hospital Boston, Mass.	Bordeaux, Gironde	Dr. F. A. Washburn
7	Boston City Hospital Boston, Mass.	Joue les Tours, Indre et Loire	Dr. J. J. Dowling
8	New York Post Graduate Hospital New York City	Savenay, Loire Inférieure	Dr. Samuel Lloyd
9	New York Hospital New York City	Chateauroux, Indre	Dr. C. L. Gibson
10	Pennsylvania Hospital Philadelphia, Pa.	Treport, Seine Inférieure	Dr. R. H. Harte
11	St. Joseph, St. Mary, Augustana Hospitals Chicago, Ill.	Nantes, Loire Inférieure	Dr. A. J. Ochsner
12	Northwestern University Medical School Chicago, Ill.	Camiers Seine Inférieure	Dr. Frederic A. Besley
13	Presbyterian and County Hospitals Chicago, Ill.	Limoges, Haute Vienne	Dr. Dean D. Lewis
14	St. Luke's and Michael Reese Hospitals Chicago, Ill.	Mars, Nievre	Dr. L. L. McArthur
15	Roosevelt Hospital New York City	Chaumont, Haute Marne	Dr. Charles H. Peck
16	German Hospital New York City	(Functioned at Biltmore, N. C.)	Dr. Fred Kammerer
17	Harper Hospital Detroit, Mich.	Dijon, Côte d'Or	Dr. Angus McLean
18	Johns Hopkins Hospital Baltimore, Md.	Bazoilles sur Meuse, Vosges	Dr. John M. T. Finney
19	Rochester General Hospital Rochester, N. Y.	Vichy, Allier	Dr. John M. Swan
20	University of Pennsylvania Hospital Philadelphia, Pa.	Chatel Guyon Puy de Dome	Dr. John B. Carnett
21	Washington University Medical School St. Louis, Mo.	Rouen, Seine Inférieure	Dr. Fred T. Murphy
22	Milwaukee County Hospital Milwaukee, Wis.	Beau Desert, Gironde	Dr. C. A. Evans
23	Buffalo General Hospital Buffalo, N. Y.	Vittel, Vosges	Dr. M. Clinton
24	Tulane University New Orleans, La.	Limoges, Haute Vienne	Maj. John B. Elliott
25	Cincinnati General Hospital Cincinnati, Ohio	Allerey, Saone et Loire	Dr. Wm. Gillespie
26	State University of Minnesota Minneapolis, Minn.	Allerey, Saone et Loire	Dr. Arthur A. Law
27	University of Pittsburgh Medical School Pittsburgh, Pa.	Angers, Maine et Loire	Dr. R. T. Miller
28	Christian Church Hospital Kansas City, Mo.	Limoges, Haute Vienne	Dr. J. F. Binnie
29	University of Colorado School of Medicine, and Denver City and County Hospital Denver, Colo.	Tottenham, England	Dr. J. W. Amesse
30	University of California San Francisco, Cal.	Royat, Puy de Dome	Dr. E. S. Kilgore
31	Youngstown Hospital Youngstown, Ohio	Contrexeville, Vosges	Dr. Colin R. Clark
32	City Hospital Indianapolis, Ind.	Contrexeville, Vosges	Dr. Edmund D. Clark
33	Albany Hospital and Medical College Albany, N. Y.	Portsmouth, England	Dr. W. A. Elting
34	Episcopal Hospital Philadelphia, Pa.	Nantes, Loire Inférieure	Dr. A. P. C. Ashhurst
35	Good Samaritan Hospital Los Angeles, Cal.	Mars, Nievre	Dr. J. J. A. Van-Kaathoven
36	College of Medicine Detroit, Mich.	Vittel, Vosges	Dr. Burt R. Shurly
37	King's County Hospital Brooklyn, N. Y.	Dartford, England	Dr. Edwin H. Fiske
38	Jefferson Medical School Philadelphia, Pa.	Nantes, Loire Inférieure	Dr. W. M. L. Coplin
39	Yale Mobile Unit, Yale University New Haven, Conn.	Changed to a Mobile Hospital	Dr. Joseph Marshall Flint
40	Good Samaritan Hospital Lexington, Ky.	Salisbury Court, England	Dr. David Barrow
41	University of Virginia Charlottesville, Va.	St. Denis-sur-Seine, Seine	Dr. Wm. H. Goodwin
42	University of Maryland Medical School Baltimore, Md.	Bazoilles sur Meuse, Vosges	Dr. A. C. Harrison
43	Emory University Atlanta, Ga.	Blois, Loire et Cher	Dr. E. C. Davis
44	Massachusetts Homeopathic Hospital Boston, Mass.	Pouques les Eaux, Nievre	Dr. Wm. F. Wesselhoeft
45	Medical College of Virginia Richmond, Va.	Toul, Meurthe et Moselle	Dr. Stuart McGuire
46	University of Oregon Portland, Ore.	Bazoilles sur Meuse, Vosges	Dr. Robert C. Yenney
47	San Francisco Hospital San Francisco, Cal.	Beaune, Côte d'Or	Dr. Charles Levison

*"Medical Department of the U.S. Army in the World War," Vol. I, page 103.

†Army Base Hospitals, after the first fifty, were organized by the Medical Department of the U. S. Army. (See page 372.)

APPENDIX

No.	Parent Institution	Location in A.E.F.	Director
48	Metropolitan Hospital New York City	Mars sur Allier, Nievre	Dr. Wm. Francis Honan
49	State University Omaha, Nebr.	Allerey, Saone et Loire	Dr. A. C. Stokes
50	University of Washington Seattle, Wash.	Mesves, Nievre	Dr. James B. Eagleson

38. MEDICAL WAR MANUALS*

Authorized by the Secretary of War and under the supervision of the Surgeon General and the Editorial Committee, Medical Section, Council of National Defense

No. 1 "Sanitation for Medical Officers," by Lieut. Col. Edward B. Vedder, M.C., U.S.A. (1917)

No. 2 "Notes for Army Medical Officers," by Lieut. Col. T. H. Goodwin, R.A.M.C., London, England; introductory note by Surg. Gen. William C. Gorgas, U.S.A. (1917)

No. 3 "Military Ophthalmic Surgery," by Lieut. Col. Allen Greenwood, Boston; Lieut. Col. George E. de Schweinitz, Philadelphia; and Col. Walter R. Parker, Detroit; M. C., U.S.A. (1918)

No. 4 "Military Orthopedic Surgery," prepared by the Orthopedic Council, consisting of Major Elliott G. Brackett, Boston; Major Joel E. Goldthwait, Boston; Major David Silver, Pittsburgh; Major Fred Albee, New York; and Drs. F. Gwilym Davis; Albert H. Freiberg, Cincinnati; Robert W. Lovett, Boston; and John L. Porter, Chicago. (1918)

No. 5 "Lessons from the Enemy; How Germany Cares for Her War Disabled," by Major John R. McDill, M.D., F.A.C.S., M.R.C., U.S.A., Milwaukee. (1918)

No. 6 "Laboratory Methods of the United States Army," compiled by the Division of Infectious Diseases and Laboratories, Office of the Surgeon General, War Department, Washington, D. C. (1918)

No. 7 "Military Surgery of the Zone of the Advance," by Major George de Tarnowsky, M.C., U.S.A., Chicago. (1917–1918)

No. 8 "Military Surgery of the Ear, Nose, and Throat," by Major Hanau W. Loeb, M.C., U.S.A., St. Louis. (1918)

No. 9 "A Suggested Plan of Clinical Organization of the Medical Service," from "Notes on Military Surgery," by George W. Crile, M.D., Cleveland. (Published privately in 1924, as the manuscript had been lost in November, 1916.)

*Published by Lea & Febiger, Philadelphia and New York.

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