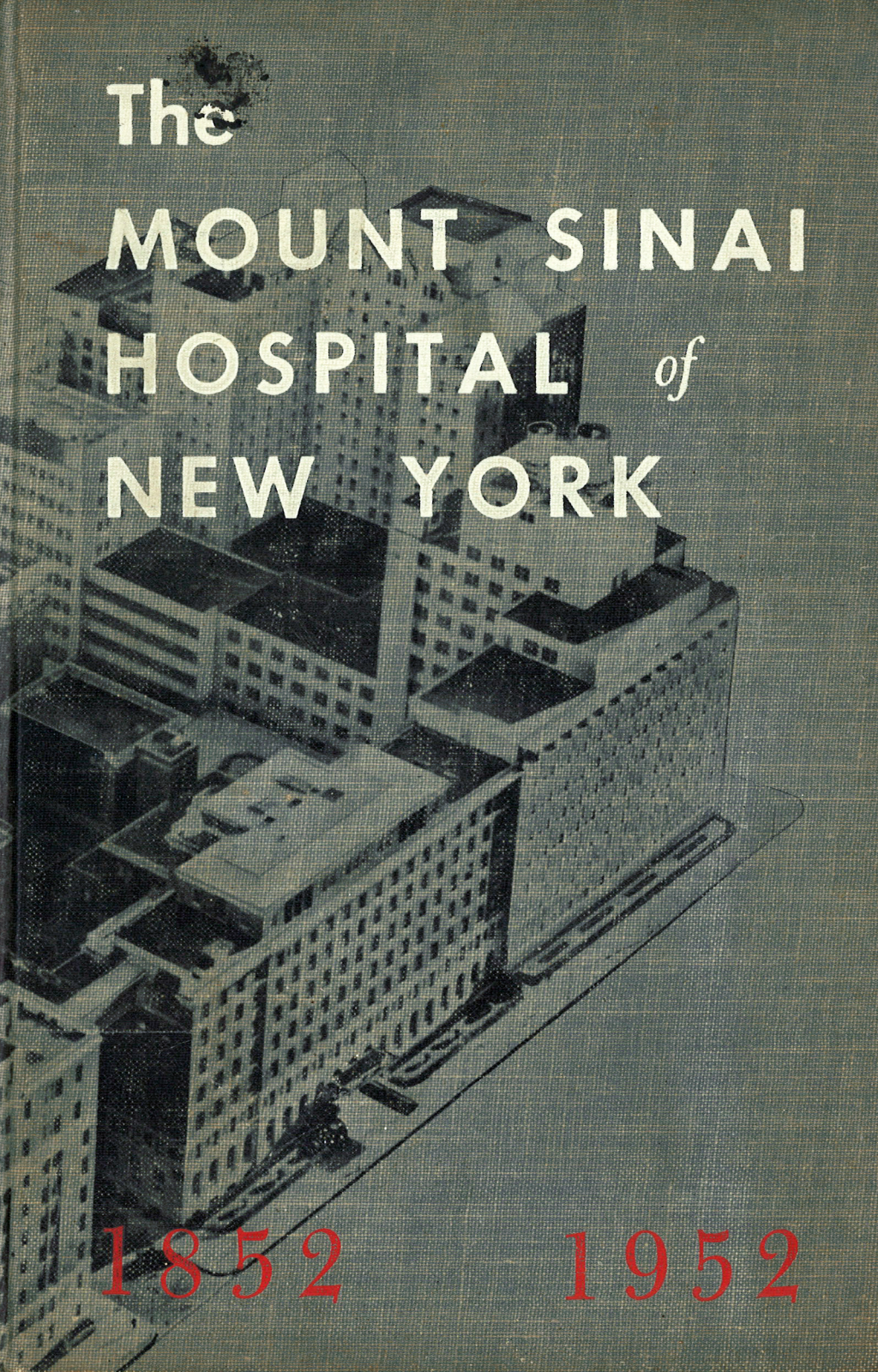
The MOUNT SINAI HOSPITAL *of* NEW YORK



1852 1952

MOUNT SINAI HOSPITAL *of* NEW YORK

1952

JOSEPH HIRSH and BEKA DOHERTY

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The First Hundred Years of

The Mount Sinai Hospital of New York

1852—1952

The First Hundred Years of **The**

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Random House
New York

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Apologia

DR. ALAN GREGG, VICE-PRESIDENT OF THE ROCKEFELLER FOUNDATON and a leading medical educator, once said: "In order to define what a thing is, it is often necessary to define what it is not."

A hospital is neither buildings nor men. It is not a place where doctors treat patients, nor a place where patients are treated by doctors. It is not a place in which directors organize philanthropy, nor a place where nurses, social workers, psychologists and technicians perform their jobs. It is not a center of research, nor the place where medical students begin to learn how to be doctors.

A hospital is the sum of all these, and more. It is the sum of all these, and less.

A hospital is more than the sum of these factors because it is part of its community, as its community is part of its nation, and its nation part of the world's nations. In itself, it is a dynamic, changing, moving institution, no more the same from day to day or year to year than are the people who make it what it is.

A hospital is less than the sum of these factors because it is limited —in size, in wealth, in the number and kind of people it can or will admit to its facilities. It is limited because, as an institution, it has obligated itself to certain duties—the duties of caring for the sick, succoring the dying, of finding ways of reducing the number of sick and dying it must care for.

A hospital's history is not merely a recasting of yesterday's news

about yesterday's men and medicine. It is not a catalogue of the factors in a hospital's growth, brick by brick, event by event, man by man, date by date. It is not a listing of the philanthropies of the past. It is not an account of the medical or scientific prowess of individuals, no matter how distinguished. It is neither a compilation of all these facts nor a simple description of how they came to happen.

A hospital's history, like all history, is like a stream in motion. It moves forward, it curves back toward its source, it twists, it eddies, it breaks foaming over boulders in its bed. Eventually it makes its way to its goal, which is also its source—the sea.

Along its course a stream is shaped by the rocks in its bed, by the land it flows through, by the men on the land, by the curves of its banks, by the rains or the drought—even by the light of the sun.

Forces as various as these, translated into social terms, shape the form and flow of a hospital's history.

The flow of Mount Sinai's history, for instance, has been shaped by its origin as the Jews' Hospital, by the growing and changing character of the community it has served, by the developments in the medical sciences to which it is dedicated, by the concepts of community service to which it is committed; by the kind of men and women who serve Mount Sinai.

Hence the history of the Hospital cannot be told solely in terms of men, events, buildings, achievements, donations. It must be told in terms of its own dynamics and the dynamics of its society. Thus, the *draft riots* of the Civil War are an integral part of the Hospital's history because the Jews' Hospital, being in the geographic center of the *riots*, was the asylum for their dead and injured. An eventual result for the Hospital was its adoption of the nonsectarianism which has been its policy ever since.

The history of events, so far in the past that they can be seen clearly, is relatively easy to report and interpret. This has been the case in the Hospital's history. But more recent events are, in a sense, still unfinished. Therefore, determination of the key events in more recent Hospital history is more difficult. There are not only more factors shaping the Hospital's character than there were in its early days; they are more complex, more diversified and they have more implications for the future.

Hence only one method has been used in selecting more contemporary data. This was to describe, as far as possible, the salient charac-

teristics of the Hospital and the main directions of its growth. It was then feasible to select, from the enormous mass of personalities and accomplishments, representatives of the essential dynamics of the whole.

Another very practical factor conditioned the selection of contemporary data. The vast size of the Hospital in recent years, the thousands of individual lives which are involved in its collective career would, if handled individually, reduce the history to a catalogue of names, dates and events. This record could not have been written, however, without a full appreciation of all the people, great and small, named and unnamed, distinguished and unknown, who shaped the course of the Hospital. Nor could this record have been compiled without the full co-operation of so many that it is impossible to name them individually.

We are grateful to the officers of the Hospital, to the members of its Staff, past and present, to those who previously compiled its historical records and to the many who took pains to guide us.

We are also indebted to many published records. For specific data on the Hospital we have drawn on the Hospital Archives, the minutes of the Boards of Trustees of the Hospital and School of Nursing, the minutes of the Medical Board, the Annual Reports of the Hospital and School of Nursing and the various Hospital Departments and, finally, *The Journal of the Mount Sinai*. We are grateful, in addition, for access to many miscellany—the memoirs, letters, pictures, private notes and memoranda, commentaries and collections—which were generously put at our disposal.

We would like to add a final note of appreciation to Miss Elisabeth Mara Hirsh for her able assistance in selecting the illustrations and to Mrs. Helene F. Margulies whose diligent and expert secretarial help has been invaluable.

J.H.
B.D.

New York, New York
February 28, 1952

The First Hundred Years of

The Mount Sinai Hospital of New York

1852—1952

1

The Time and Place

SEVERAL OF THE MEN WHO IN 1852 WERE TO ORGANIZE THE JEWS' Hospital in New York, as Mount Sinai was first called, were "foreigners," having come to the Colonies from Europe only a short time before the Revolution. Others were descendant from a group of Jews who had emigrated to New Amsterdam in the early 1650's from Brazil in order to escape the persecution of the Portuguese conquerors. Upon their arrival, the home government of Holland passed the Act of Toleration permitting them to remain, provided they cared for their own poor. This legislation formed the bedrock upon which Jewish communal life in America was built in the ensuing two hundred years.

The founding fathers of the Jews' Hospital lived through a period of wars, revolutions, depressions, industrial growth, geographic and political expansion without precedent until modern times. The movement was continually to the west. By the mid-nineteenth century hundreds of thousands were pouring to our shores and tens of thousands already here were lured to the swaying gold on the plains and the nuggets in the streams and mountains beyond.

Following the revolutions which swept Europe in 1848-49, Jews and non-Jews flocked to the United States. In the decade from 1850 to 1860, slightly under 2,000,000 immigrants came from England, Ireland and Central Europe; it was during this period that the number of Jews in the United States almost tripled.

The city of half a million people, of whom some ten to twelve thousand were Jews, in which the Jews' Hospital was to be built, had, by the mid-century, become the center of American wealth and

fashion. Bowling Green, Park Place, Murray and Chambers Streets were well-to-do residential areas, but the population was already moving north. Washington Square, once New York town's pauper burial ground, was rapidly becoming the site of the city's fashionable homes. Far to the north, 23rd Street was the terminus of a street-car line that ran from City Hall.

But much of New York's wealth was pure façade. The earnings of the average mechanic were twelve shillings a day. The cost of living, however, was commensurate. A bass, weighing fourteen pounds, for example, cost $2.50. Beef sold at eighteen cents a pound. Small turkeys went for $1.75 each. A four-pound chicken cost fifty-six cents, veal eighteen cents and mutton eleven cents a pound. Liver, only in our time considered an important blood-building food, was tossed in gratis with most meat purchases. Medical bills were scaled accordingly.

The immigrants coming from Europe, in ever-increasing numbers, however, were hardest hit. They could only be compared in our time to the exodus from Europe to Israel both in numbers and in the inability of the community to meet their housing needs.

New immigrants found shelter in shanties and tenements, only vague counterparts of which exist, ironically enough, in the neighborhood of the present Hospital, in Harlem and Little Puerto Rico. It was not to be unexpected, therefore, that the morbidity and mortality amongst these immigrants were appalling. A large proportion of them fell victim to tuberculosis, that "social disease with medical manifestations," characterized by poor housing, malnutrition, unemployment and overcrowding. The unattended bodies of men and dogs were frequently found by investigating committees in the overcrowded tenements. Up to a third of the number of deaths in the city were among foreigners and recent immigrants.

Efforts made by health officers and others to better housing and sanitation conditions were met with vigorous opposition by landlords. An interesting commentary on the rental preferences of some landlords on the lower East Side for Negroes rather than Irish or German tenants is attested by reports that they tended to be less destructive to property—a view not shared in our time when efforts have been made to establish community housing projects for Negroes. The shanties and tenements in which most people lived generally were without running water and toilet facilities. The outhouse was as com-

mon to the city proper in those days as it was to the farms throughout this country thirty years ago.

The tenements, in their structure and maintenance, have no counterpart in our time. Cross-ventilation was nonexistent. Windows opening to the outside were few and poorly placed. Landlords provided little or no service in cleaning the corridors and hallways of tenements. The tenants themselves had to clean and sweep and mop the areas immediately outside their doors. Garbage disposal, as we know it today, was nonexistent.

In one area in the lower East Side, thousands of men, women and children lived in underground basements, into which surface water drained with each rainstorm. The descriptions of the "homes" of these people are evocative only of the dank, foul dungeons of medieval Europe and Turkey. Although the Croton Aqueduct was completed in 1842, drinking water for a large proportion of the city's population was collected in cisterns and drawn from pumps.

Under these conditions of crowding and filth it is not surprising to learn that in the summer of 1842 a severe epidemic of typhus appeared in what is now the lower East Side, a section of the city where people had as neighbors pigs, horses and cattle in nearby stables and sties, where streets were partly boarded over with planking as protection against the mud and excreta underneath. In this neighborhood, in the summer of 1842, nine cases of typhus appeared. The wonder is that it was not ninety or nine hundred.

The abject poverty of the city was expressed not merely in terms of the tenements but in the paucity of public services. Public services were primitive or underdeveloped. There was little in the way of a police force, practically nothing of a Health Department. Although a public-school system had been in existence since 1812, education was still largely in the hands of the religious groups and on a philanthropic basis. The fight, common in our time, on the part of church groups to obtain public support for parochial education had its violent and insidious counterpart in the city's early history.

The virulence and violence of criminality and immorality are hard to believe. The records of the Tombs reveal not only the disregard that society had for those it imprisoned, but the motives of many who, reflecting the poverty of their origins and in the name of survival, took to the road of crime or prostitution. In the Tombs it was common practice to herd prisoners, male and female, of every age, economic

and social status, of every state of health and disability, into common pens. It was not uncommon to find whole families, mothers and children, incarcerated in the same cells and cell blocks with hardened and confirmed criminals. It was not uncommon to find in the Tombs female children, ranging from twelve to fifteen years of age, taken from brothels. To the public-health worker the story of venereal disease in New York in the pre-mid- and mid-nineteenth century can scarcely be equaled in any other time or place.

In this setting of disease and filth and poverty we find in the spring of 1849, two years before the Jews' Hospital was organized, an outbreak of Asiatic cholera. A "Sanitary Committee" was convened by the City Board of Health which acted to clear three thousand hogs from the cholera area and remove them to the outskirts of New York town. A two-story building at Anthony Street, which had been a meat packing house, was pressed into service as a pesthouse. Despite these precautions and control measures and the establishment of other local pesthouses, the epidemic spread from Orange Street to Anthony Street, to Pearl Street and Center Street, to Mulberry Street. Within a month, it had appeared in other parts of the City. By late June or early July, 1849, the disease had moved in epidemic proportions up to 24th Street and then to the far reaches of the City at 40th Street and from 8th Avenue to the North River. Even remote Harlem and Manhattanville did not escape it.

The diary of Philip Hone, a contemporary New Yorker, writing in June, 1849, is most instructive.

> June 1.—The cholera increases, the weather is foggy, murky, and damp—just such weather as produces and propagates this dreadful disease. A panic is created; vegetables and fish, oysters and clams, generous wine and nourishing porter, are repudiated; foolish people run from one extreme to another; let them live well and temperately, wear flannel, and think less of cholera, and defy the foul fiend.

By June 30th, there were eighty-eight cases reported in one day and twenty-six deaths.

Severe as the epidemic was in New York, two other cities, St. Louis and Cincinnati, also populated by recent immigrants from Europe, were reported to be even more seriously scourged by the epidemic. The air of these cities, as the diarist described it, seemed "to be corrupted, and indulgence in things heretofore innocent is frequently fatal now in these 'cholera times.' "

By the latter part of July cholera deaths in New York exceeded forty a day and in one week "the city inspector of interments . . . discloses the astounding fact that there were 1,400 deaths, of which 714 are represented as of cholera, and a large proportion of the remainder diseases of the same family."

By the end of July, the diarist wrote:

> Poor New York has become a charnel house; people die daily of cholera to the number of two or three hundred—that is, of cholera and other cognate diseases. But this mortality is principally among the emigrants in the eastern and western extremities of the city, where hundreds are crowded into a few wretched hovels, amidst filth and bad air, suffering from personal neglect and poisoned by eating garbage which a well-bred hog on a Westchester farm would turn up his snout at. It is remarkable that the three lower wards of the city, which in yellow-fever times were the seat of the disease, are now nearly exempt from the cholera, and the upper wards, our place of refuge from the pestilence of those days, have become almost exclusively the scene of "death's doings."
>
> Friday, August 3.—This is a day of fasting, humiliation and prayer, ordered by the President of the United States. May the voice of a nation punished for the sins of the people be heard by the Almighty and serve to avert the dreadful infliction, under which we are suffering. It is a sublime and solemn subject of reflection. Millions of people in this vast country, of different sexes, all ages, ranks and professions and religious and political opinions simultaneously offering their penitential appeals to heaven for pardon and forgiveness of their sins and a removal of the chastening hand which lies heavy on the nation.

Well into August the cholera epidemic continued to rage throughout the country. Mortality from its ravages in New York exceeded 5,000. Public schools were turned into hospitals and in them alone more than 1,000 deaths occurred.

Aside from the pesthouses and temporary hospitals improvised to cope with the epidemic, there were but a handful of permanently established institutions operating at the time.

The oldest in the City was the New York Hospital, chartered in 1771 by King George III. (On Manhattan Island a hospital had actually existed prior to that time known as "City Hospital." In reality it was nothing more than one room thirty-five by twenty-three feet, containing six beds, which had been set apart as an infirmary in the building known as the "Public Workhouse and House of Correction of the City of New York.")

In 1773 land was purchased for the erection of that hospital with the cost estimate of the building coming to $18,000. In 1775, when the buildings were almost completed they took fire and were almost completely destroyed. They were repaired and completed for occupancy during the Revolutionary War, but remained idle for many years thereafter. During the War they were used as a barracks for Hessian and British troops and only occasionally as a military hospital. Officially the hospital was opened in 1791 and admitted eighteen patients.

During its early years the New York Hospital was liberally aided by State appropriations, since it was widely used by practitioners and students as a place of study. The original hospital buildings located on Broadway and Church Street were torn down in 1869 and a new structure was built on West 15th Street between Fifth and Sixth Avenues. This building was opened in 1877, five years after the opening of the second Mount Sinai. In that year its Training School for Nurses was also opened.

Another early hospital was the Lincoln Hospital and Home (formerly the Colored Home and Hospital) of the City of New York, established in 1839. The Colored Home was first located on 65th Street, just off First Avenue. Among the physicians on the council of the medical department of the Colored Home were several men who were to be intimately identified with the Mount Sinai Hospital, like Drs. T. M. Markoe and Willard Parker.

Still another hospital was the St. Vincent's Hospital, established in 1849 by the Sisters of Charity. Dr. Valentine Mott, also identified with Mount Sinai, was president and consulting surgeon of St. Vincent's Hospital in its early days. The original hospital had a capacity of thirty beds, which by 1852 was increased to seventy beds. These additional beds were housed in a building without "gaslight, Croton water, closets or baths. . . . This want of necessary convenience was made more sensible during the prevalence of typhus in 1852."

Among the municipal hospitals that were already going concerns in those days were Bellevue and City (formerly Charity) Hospitals, the latter opened on Blackwell's Island to care for the city's indigent sick.

The city administration in the 1850's was so notoriously corrupt and inefficient that the State Legislature was prompted to take action in a number of different areas. Thus, in 1857, the Legislature created the Metropolitan Police District to cope with the inadequacies of the

City Department. Similarly it set up a Metropolitan Sanitary District to perform certain functions not being carried out by the City Board of Health.

The corruption characteristic of the 1850's is exemplified by the so-called reform administration of Fernando Wood, Tammany's first candidate to be elected to the mayoralty—in 1854. Breaking with the moneyed classes, Wood, who a year later presided at the opening ceremonies of the Jews' Hospital, set himself up as the people's champion. Following the panic of 1852, he was responsible for providing the poor with food at cost, initiated certain public works projects and within a short period of time, constituted himself virtual dictator of the city's affairs, assuming personal control of the police and other city departments. The action of the State Legislature in creating the Metropolitan Police District was an effort to replace Wood's domination of the police force, which in fact made it his personal, private army.

A characteristic of the Wood regime was the sale of official positions and various commissionerships. In his daily actions Wood served as the prototype of the man who was always selling and reselling the Brooklyn Bridge to any and all comers. He bought land from people who didn't own it and muzzled criticism of the press by obtaining heavy advertising support. In the city administration, he created twenty-two unnecessary offices costing the taxpayers a half million dollars. To this day he has the dubious distinction of auctioning City Hall for $50,000 to pay off a fraudulent claim against himself.

It was during this period of the City's history that two future sites for the Mount Sinai Hospital were earmarked as protected areas, although the first hospital was yet to be created. As early as 1850, agitation was started to set aside certain areas in the city as park reservations for the use of the ever-expanding community. By the act of July 11, 1851, the State Legislature authorized the acquisition of a tract of land known as Jones' Woods, extending from the East River westward to Park Avenue and from 66th Street to 75th Street. Opposition to this locale for a great city park ultimately helped crystallize public opinion in favor of the site that was to become Central Park. The advocates of the east-side park continued their campaign, which included chartering a steamboat on which they took members of the Legislature and the Chamber of Commerce, and even the President of the United States, Franklin Pierce, to visit the area. This visit not-

withstanding, the city's Common Council in June, 1853, requested the Legislature to authorize opening of a park from 63rd to 100th Streets and bounded on the east by Fifth Avenue and on the west by Eighth Avenue. The Legislature, in Solomonic fashion, enacted two laws, one for the East River site and the other substantially for the present Central Park site. A year later, the Jones' Woods Act was repealed.

Against this backdrop in which the Jews' Hospital was set, there were other factors in Jewish communal life which made the Hospital both necessary and possible. The first U.S. census in 1790 indicates that of a total national population of 4,000,000, there were at most only 2,000 Jews. During the colonial period, wherever a sufficiently large and stable Jewish community existed, a congregation was founded. These congregations were not merely houses of worship. They were, like other churches of their times, communal centers carrying on educational, philanthropic, relief and other activities. They were responsible, in smaller communities, for the establishment and conduct of parochial schools, charitable and philanthropic societies and fraternal organizations.

In the larger communities, where the population was numerous enough to support several synagogues, Jewish communal life began to expand beyond their boundaries. It was particularly in cities like New York, which had a large German-Jewish population, noted for its organizational skills and joining proclivities, that groups and societies of every variety were organized.

In colonial America, the congregation traditionally served as the central relief agency for new immigrants. But with the influx of large numbers of refugees beginning in the 1850's, the need for more and varied assistance led to the formation of societies that cut across the lines and the authority of the synagogues. By the outbreak of the Civil War, for example, over thirty-five permanently organized charitable societies had been set up in New York alone.

By 1850 sizable Jewish communities were already in existence in such metropolitan centers as Baltimore, Cincinnati, Louisville, New York and Philadelphia. There were about fifty Jewish congregations in the country as a whole and one-third of them were in the City of New York. In fact, in 1850, New York's Jewish community was already the largest in the country, a position it was to maintain thenceforth.

In the face of the ever-increasing number of Jews and their need for hospitalization, the Hebrew Benevolent Society on the occasion of its twenty-ninth anniversary, dispatched the following invitation:

New York—October 15, 1850

Sir—

We have the pleasure to inform you that, agreeably to the provisions of our Constitution and By-Laws, our Society will celebrate its Twenty-ninth Anniversary, at the Chinese Rooms, on Thursday evening, November the 7th, to which you are respectfully invited.

Dinner on table at 6 o'clock precisely.

You will, we are persuaded, be happy to learn that notwithstanding the increase of those having claims on the bounty of the Society, we have been able to supply the moderate wants of all applicants for aid, at the same time, not forgetting those who reside amongst us, and receive their weekly donations of fuel and money. It is a source of great pleasure to know that our Society has realized all the good results contemplated by its founders; that it is steadily increasing in members, and the surplus fund safely invested, will shortly enable us to adopt preliminary measures, for the establishment of a JEWISH HOSPITAL, the great and final object of our Institution. We therefore rely on the continued liberality of our friends, to carry out the benevolent objects of our Institution.

We beg to know by the 4th of November whether we shall be honored with your company.

We are Sir,

Very Respectfully,
Your Ob't Servants,
M. M. Noah, President,
109 Bank Street
H. Aronson, Vice-President,
79 William Street
John Levy, Treasurer,
134 William Street

Directors

Adolphus H. Lissak, 42 Maiden Lane
Geo. S. Mawson, 161 Water Street
H. M. Ritterband, 679½ Broadway
Simeon Abrahams, 175 West Broadway
Jacob Mack, 68 Orchard Street
Leopold Haas, 103 Sullivan Street
Henry E. Hart, 105 Maiden Lane
Edward Turk, 42 Maiden Lane
Z. Bernstein, 195 Bowery
Henry Goldsmith, Secretary,
4 West Broadway Place

Four months later, on February 16, 1851, the Society called a conference to consider the establishment of an "Asylum for the Aged and Sick of the Hebrew persuasion." Delegates from various societies included the following:

from the Hebrew Benevolent Society

M. M. Noah
Harris Aronson
Henry E. Hart
Leopold Haas
George S. Mawson
Jacob Mack

from the Assistance and Education Society

Henry Hendricks
Jacob Abrahams
Lewis J. Cohen
Theo. J. Seixas

from the German Hebrew Benevolent Society

H. Heineman
Israel D. Walter
Henry Kaiser
W. Cooper

from the Young Men's Hebrew Benevolent Association

Henry B. Herts, Jr.
Philip J. Joacimsen
Philip Levy
Louis Solomon

The result of the meeting is stated as follows: "The Directors of several Charitable societies, alike acquainted with the wants of the poor, and the general feeling of the Jewish public on the subject, deeming the present time propitious to the founding of such an institution, propose . . ."

The plan was to call the institution the Hebrew Asylum and Hospital. As soon as $25,000 was raised, the Provisional Committee was to apply to the State Legislature for a grant of money and land. The institution was to provide asylum for the "aged and infirm of both sexes; an Hospital for the sick; a Lying-in Hospital for married women." The founding societies were to contribute their surplus each year in designated sums of $500 and $1000 each.

While the conference plans did not go into effect, they paved the way for future action. Accordingly, when within the year, Sampson Simson and his eight associates took over the leadership of this movement and incorporated the Jews' Hospital on January 15, 1852, they found the Jewish community ready to extend its full co-operation.

2

The Men and the Women

THE GROUP THAT SAMPSON SIMSON HAD GATHERED ABOUT HIM WERE old friends. They knew each other well and had worked together in previous charitable undertakings. The group included the Rev. Samuel M. Isaacs, John I. Hart, Benjamin Nathan, John M. Davies, Henry Hendricks, Theodore J. Seixas, Isaac Phillips and John D. Phillips. These nine men signed the incorporation papers and were the first Directors of the Hospital. They held their first meeting in the Trustees' Room of the "Synagogue in Crosby Street," home of Shearith Israel, the oldest Jewish congregation in America.

Sampson Simson, then seventy-two years old, was elected their President. Graduated from Columbia College in 1800, he later studied law under Aaron Burr, and was probably the first Jew admitted to the New York Bar. Unmarried, reserved, preferring country life at his Yonkers estate to the growing bustle of New York, he was the patriarchal figure of his sister's family. He wore the picturesque costume of an earlier day, even to knee breeches and buckles. He carried a silver-headed cane upon which he was in the habit of leaning even when seated. His picture reveals long white hair, old-fashioned, over-sized spectacles.

One can well imagine the gravity with which these deeply religious and public-spirited men heard their President call the first meeting to order and read the articles of incorporation which stated, ". . . we have associated and hereby do associate ourselves into a benevolent, charitable and scientific Society . . . to be known as 'The Jews' Hospital in New York'." The minutes of that meeting record that having

read the articles of incorporation, "The President . . . declared the Society organized for the purposes therein stated" which were ". . . medical and surgical aid to persons of Jewish persuasion and for all other purposes appertaining to Hospitals and Dispensaries . . ."

The articles of incorporation read in part as follows:

"We Sampson Simson, Samuel M. Isaacs, John I. Hart, Benjamin Nathan, John M. Davies, Henry Hendricks, Theodore I. Seixas, Isaac Phillips and John D. Phillips, Citizens of the United States of America and the State of New York and Residents of the City of New York, County of New York and State aforesaid, being each over twenty-one years of age and desirous of associating ourselves (with such persons as may hereafter be admitted as members) for benevolent, charitable and scientific purposes in conformity with and under the provisions of an act of the State of New York entitled 'An Act for the incorporation of benevolent, charitable, scientific and missionary Societies' passed April 12, 1848, certify that we have associated and hereby do associate ourselves into a benevolent, charitable and scientific society to be known and distinguished in law, or otherwise by the name of 'The Jews' Hospital in New York', that the particular business purpose and object of such association and society will be medical and surgical aid to persons of the Jewish persuasion; and for all other purposes appertaining to Hospitals and Dispensaries; that the said Society will be under the management and control of nine Directors; that Sampson Simson, John I. Hart, Benjamin Nathan, Henry Hendricks, Samuel M. Isaacs, John M. Davies, Theodore I. Seixas, Isaac Phillips and John D. Phillips shall be the Directors of such Society for the first year of its existence; and that the said Sampson Simson shall be the President; the said John I. Hart, Vice-President; the said Benjamin Nathan, Secretary; and the said Henry Hendricks, Treasurer of the said Society for the first year. And that the place of business of the said Society will be in the City, County, and State of New York."

It was with a profound sense of responsibility that these men established the first Jewish hospital in the United States. The enterprise was consistent with their own records as energetic citizens in a rapidly growing city, and with a long tradition of active participation in the life of the community.

One of their number was a descendant of the Rev. Gershom Mendez Seixas who, during the Revolution, had persuaded the very congregation in whose building this group was meeting, and of which

some were members, to close the doors of their synagogue rather than remain in New York after it had fallen into the hands of the British. He himself went to Philadelphia and took up religious duties, while other members of the Portuguese Congregation scattered to various sections of the country.

The Simson family went to Danbury, Connecticut, and it was there that Sampson Simson was born in 1780. The greater part of his life Sampson Simson was active in philanthropic work, giving generously and judiciously of his very considerable wealth. In choosing the objects of his philanthropy, he depended greatly upon the advice of the Rev. S. M. Isaacs.

Rev. Isaacs, the rabbi of the Congregation Shaaray Tefila, was born in Holland in 1804, but grew up in England. In 1839 he was called to the United States as rabbi of the Congregation B'nai Jeshurun. Somewhat later he became the leader of Shaaray Tefila when that group, in 1845, split from the older congregation. From the time he arrived in this country, he was the guiding spirit of New York philanthropy among the Jews. Ruddy-faced, outgoing and pleasant, he knew and liked many people in various walks of life. He was popular and always in great demand, especially with young folk. But above all he was fond of his immediate family circle, and often sang old English folk songs with his children. A defender of the older and stricter forms of his religion, he was nevertheless tolerant of other views. He was a sincere and honest minister, always ready to help others, to take part in organizing a new charity, and to speed in the middle of the night on a visit to the distressed or the dying.

Associated with Rev. Isaacs in the Congregations B'nai Jeshurun and Shaaray Tefila were John M. Davies, John D. Phillips and John I. Hart, who was elected Vice-President of the new Hospital. Hart had been one of the committee which, in 1825, requested and received aid from the Portuguese Congregation in founding B'nai Jeshurun.

John D. Phillips was active in the fur business and also dealt extensively in real estate. He was one of those who had sufficient foresight to visualize a New York which might extend beyond its then northern limit of Thirty-fourth Street, and include the rural villages of Bloomingdale, Yorkville and Manhattanville. These sections, in 1852, could be reached only by horse and carriage over rutted country roads. But John D. Phillips bought large holdings in the neighborhood

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This book is published under the auspices of the Centennial Committee of the Board of Trustees of The Mount Sinai Hospital of New York.

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In all surgical cases [illegible] agreed at the usual rates, as in other cases. Night visits in the country are considered as beginning at [illegible]

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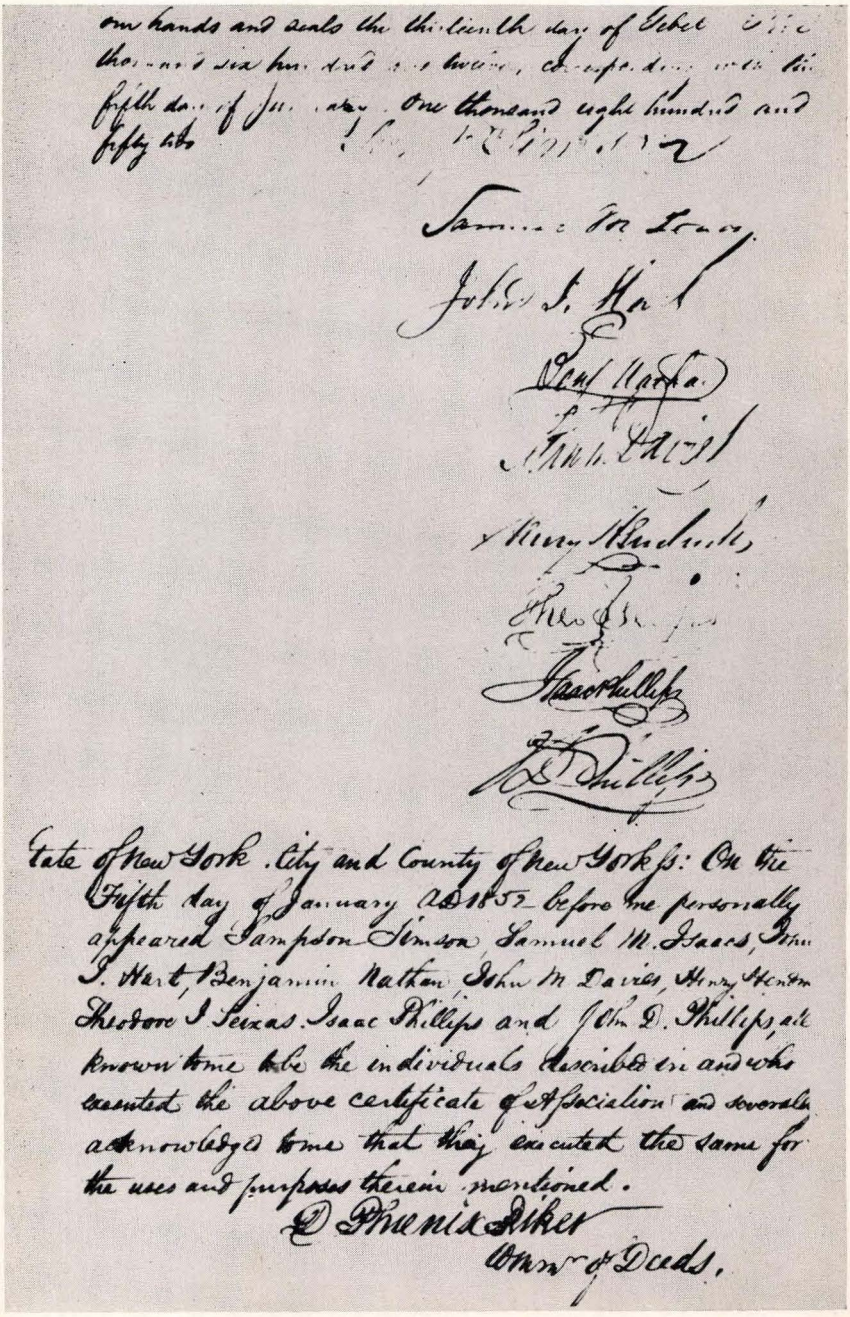
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Typical Costs of Medical Service in the Mid-Nineteenth Century

We Sampson Simson Samuel M Isaacs John I Hart Benjamin Nathan John M Davies Henry Hendricks Theodore I Seixas Isaac A Phillips and John D Phillips Citizens of the United States of America and of the State of New York and Residents of the City of New York County of New York and State aforesaid being each over Twenty one years of age and desirous of associating ourselves (with such persons as may hereafter be admitted as members) for benevolent charitable and scientific purposes in conformity with and under the provisions of an act of the State of New York entitled "An Act for the incorporation of benevolent charitable scientific and missionary Societies" passed April 12. 1848 Certify that we have associated and hereby do associate ourselves into a benevolent charitable and scientific Society to be known and distinguished in Law or otherwise by the name of "The Jews Hospital in New York." That the particular business purpose and object of such association and Society will be medical and surgical aid to persons of the Jewish persuasion and for all other purposes appertaining to Hospital and Dispensaries. That the said Society will be under the management and control of Nine Directors. that Sampson Simson John I. Hart. Benjamin Nathan. Henry Hendricks Samuel M Isaacs. John M Davies Theodore I Seixas. Isaac A Phillips and John D Phillips shall be the Directors of such Society for the first year of its existence: and that the said Sampson Simson shall be the President: the said John I Hart Vice President: the said Benjamin Nathan Secretary: and the said Henry Hendricks Treasurer of the said Society for the first year And that the place of business of the said Society will be in the City County and State of New York.

In Witness whereof We have hereunto set

1-I



our hands and seals the thirteenth day of October in the
thousand six hundred and [illegible], excepting [illegible] the
fifth day of January one thousand eight hundred and
fifty two

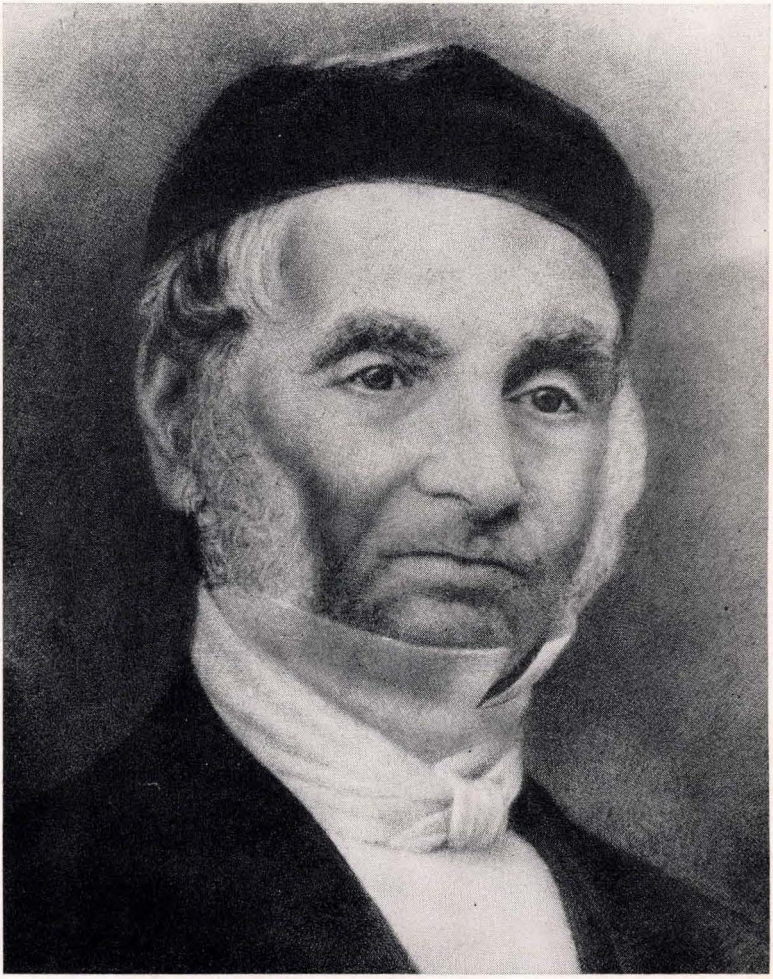
State of New York. City and County of New York ss: On the
Fifth day of January A.D. 1852 before me personally
appeared Sampson Simson, Samuel M. Isaacs, John
I. Hart, Benjamin Nathan, John M. Davies, Henry Hendricks
Theodore I. Seixas, Isaac Phillips and John D. Phillips, all
known to me to be the individuals described in and who
executed the above certificate of Association and severally
acknowledged to me that they executed the same for
the uses and purposes therein mentioned.

Dennis Dikes
Comr of Deeds.

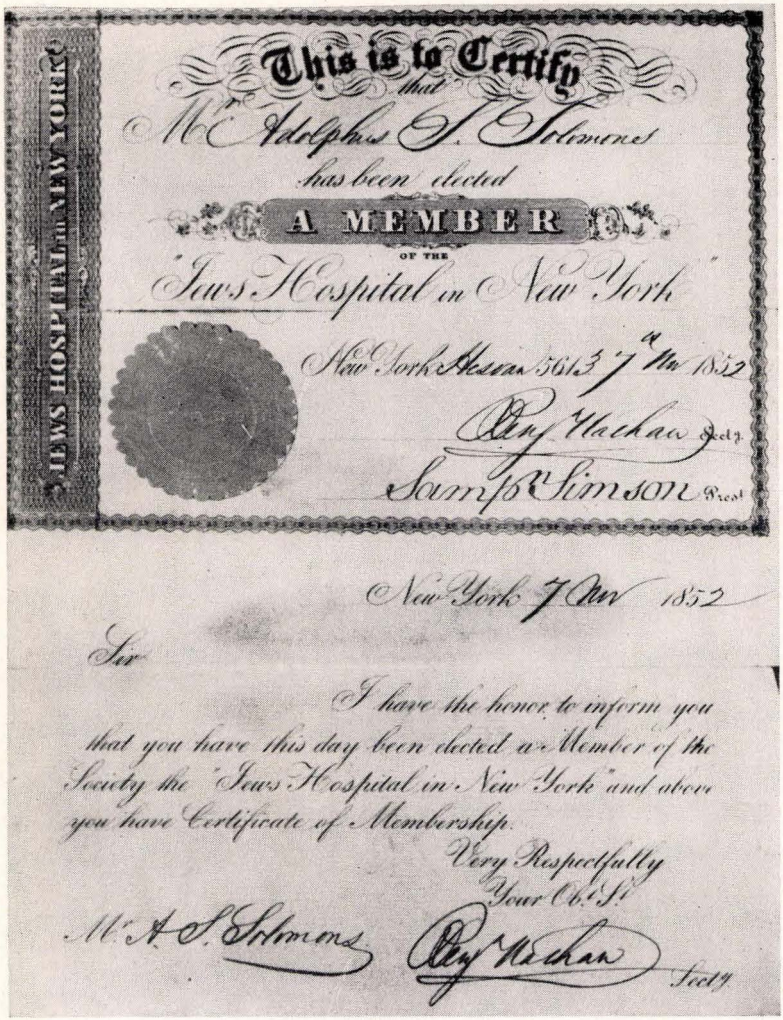
Incorporation Papers of the Jews' Hospital in New York



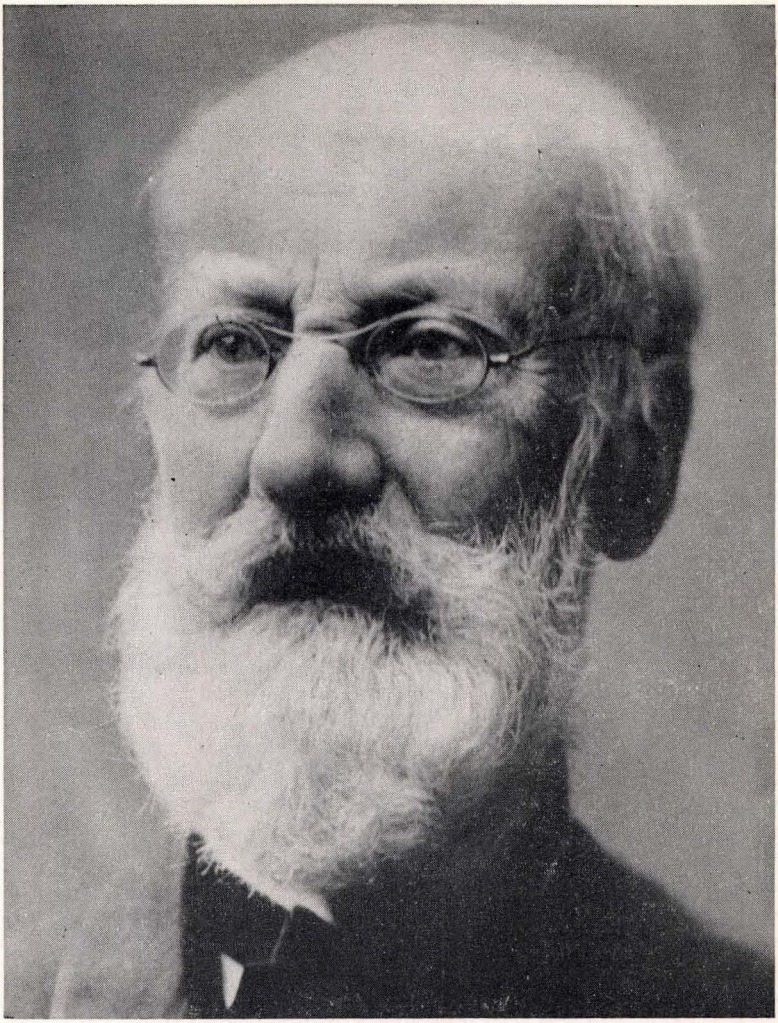
Sampson Simson



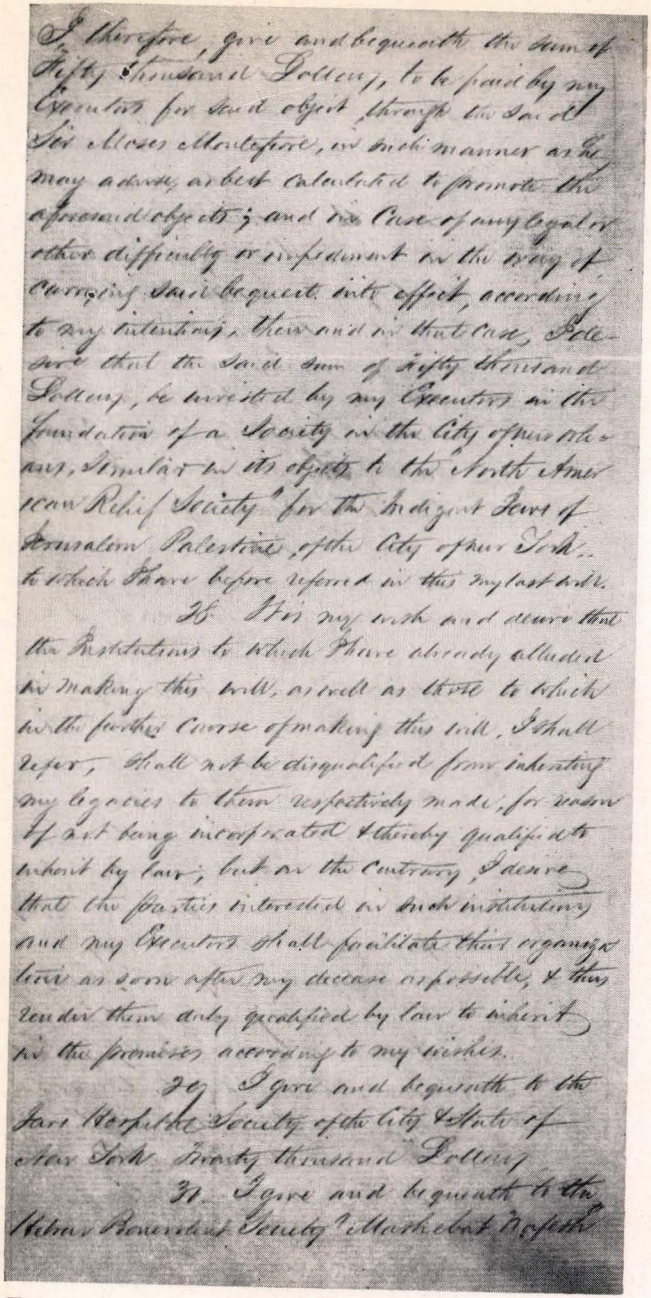
Rev. Samuel M. Isaacs



Membership Certificate of the Society of the Jews' Hospital in New York



Dr. Benjamin W. McCready



I therefore give and bequeath the sum of Fifty Thousand Dollars, to be paid by my Executors for said object through the said Sir Moses Montefiore, in such manner as he may advise, as best calculated to promote the aforesaid objects; and in case of any legal or other difficulty or impediment in the way of carrying said bequest into effect, according to my intentions, then and in that case, I declare that the said sum of fifty thousand Dollars, be invested by my Executors in the foundation of a Society in the City of New York, Similar in its objects to the North American Relief Society for the Indigent Jews of Jerusalem Palestine, of the City of New York, to which I have before referred in this my last will.

28 It is my wish and desire that the Institutions to which I have already alluded in making this will, as well as those to which in the further course of making this will, I shall refer, shall not be disqualified from inheriting my legacies to them respectively made, for reason of not being incorporated & thereby qualified to inherit by law; but on the Contrary, I desire that the parties interested in such institutions and my Executors shall facilitate their organization as soon after my decease as possible, & thus render them duly qualified by law to inherit the premises according to my wishes.

29 I give and bequeath to the Jews Hospital Society of the City & State of New York Twenty thousand Dollars

31 I give and bequeath to the Hebrew Benevolent Society of Charleston South

Extract from the Touro Will in Which $20,000 Is Bequeathed to the Newly Formed Jews' Hospital

that is now Fifty-seventh Street, and became one of the early and enthusiastic promoters of uptown New York.

Benjamin Nathan, first Secretary to the Hospital, Henry Hendricks, its first Treasurer, Theodore J. Seixas and Isaac Phillips, were all members of the historic Portuguese Congregation, Shearith Israel, founded in 1655. Benjamin Nathan was a member of the New York Stock Exchange; Henry Hendricks was an owner of Hendricks Brothers Copper Rolling Mill, one of the oldest firms in the United States; Isaac Phillips was Appraiser of the Port of New York, City Commissioner of Education, and a President of the Portuguese Congregation. Theodore J. Seixas and Henry Hendricks had worked together the previous year at the conference called by the Hebrew Benevolent Society.

The period of the founding of the Hospital was characterized by severe unemployment in the City of New York. The crop failure in the summer of 1854, due largely to the drought, strikes involving many trades, soaring food prices and wild speculation, led to large-scale riots throughout the city. During the following winter, mass meetings were held in City Hall and Washington Square and forcible seizure of private property was widely advocated. The Society for the Improvement of the Condition of the Poor estimated that almost 200,000 men, women and children were in absolute want. To add to these misfortunes, the winter of 1855-56 was so severe that not only outdoor labor but a large part of indoor labor was suspended for long periods.

For the ensuing two years, after the opening of the Hospital, the economic fabric of the city seemed to fall apart. Financial houses crashed, factories closed their doors and banks suspended operations. Epidemics added their fury to the human havoc wreaked by the economic riots of the time. It was thus with no assurance of what money might be forthcoming that the Jews' Hospital in New York came into being. So urgent was the need for such an institution, however, that the founders felt the effort must be made.

It was particularly encouraging, therefore, that at the first meeting of the Board, a letter announcing a substantial donation was reported. It was signed by Barrow Benrimo, chairman of a group called the Young Men's Committee, which on February 4, 1852, had given a ball for the benefit of the Jews' Hospital Society. This donation of $1,034.16 was the initial contribution to the Hospital, the proverbial shoestring on which it started. A resolution of thanks for "their laudable and successful efforts in commencing in a liberal degree the

establishment of a fund to carry out the objects of this institution" was passed and sent to the members of the Committee, which included Barrow Benrimo, Samuel A. Lewis, L. H. Simpson, George Henriques, Adolphus S. Solomons, Rowland Davies, Max Bachman, George King, L. Bierhoff, Noah Content and Henry Honig. That this group was particularly interested in helping the Hospital is not surprising, since, the year before, its chairman, Barrow Benrimo, had also been a delegate to the conference called by the Hebrew Benevolent Society to discuss the possibility of a hospital.

Another member of the Committee, Adolphus S. Solomons, in reminiscing some twenty years later, described a visit he had made in 1851 to a Jewish hospital in Frankfort-on-Main. He told of the shame he had felt when he had to admit that there were no such hospitals in the United States, and how he "then and there determined that, God willing, such a reproach upon his native land should not long exist, if he could do aught to prevent it . . ." A year later came the opportunity to do considerably more than "aught." He contributed materially toward the proposed Jews' Hospital, and his support continued long afterwards. As an older man and an active citizen of Washington, D. C., he was to show his interest in medical aid, not only by assisting in the organization of the American Red Cross, but also by his part in the development of the Garfield, Columbia and Providence Hospitals.

The first problem facing the young Society was to obtain a place in which their hospital could be set up. A committee was appointed at the second meeting of the Board to find a building that could be used as temporary quarters. At the third meeting, this group reported that it had found a house which could be rented for nine months for one hundred and twenty-five dollars. It was voted to accept this offer. A month later, however, a special meeting was called to announce that Sampson Simson "had executed a deed to the Jews' Hospital in New York for a lot of land on the south side of Twenty-eighth Street between Seventh and Eighth Avenues, 25 feet front and rear by about 98 feet more or less." The Board immediately set about securing appropriate plans for the erection of a hospital on this piece of land.

In 1852, Twenty-eighth Street was far beyond the bustle of the city. The surroundings of the site were sufficiently rural to allow the picking of tomatoes, the building of bonfires, and the roasting of pota-

toes. At that time the fashionable sections of the city were Bond Street, Washington Square, and East Broadway, where the red brick homes of wealthy citizens lined the thoroughfares. Those streets that were not dirt roads were paved with cobblestones. Gaslight, introduced into New York only twenty-nine years before the founding of the Hospital, illuminated the streets. New Yorkers traveled by foot, carriage or horse-car. Sampson Simson, living on his estate in Yonkers, must have considered the trip to New York a formidable journey when he set forth in a horse and carriage to jolt over the rutted country roads that led to the city.

In the first month of the Society's existence, a constitution was drawn up and sent with a circular to those who might be interested. The circular declared that "from the mere dues of members, but an insufficient sum can be obtained; it is therefore incumbent on the Directors at once to call on those who have the ability, to enable them to carry out the objects of the Society."

The minutes of Board meetings for the years 1852 and 1853 indicate that the Directors were prompt contributors, a tradition that was to be maintained throughout the hundred-year history of the Hospital. So meticulous are the records of those early days that we are told that Sampson Simson paid a bill of $61.86 for the Society and allowed it to stand as a donation. Lewis M. Morrison and Joseph Fatman, the one to be elected a Director three years later and the other after five years, both helped to support the young organization. Mrs. Frances Hendricks and Selina Hendricks, the mother and sister of Henry Hendricks, each gave five hundred dollars, with the promise that if five thousand dollars were collected within one year, each would repeat the donation. The name of George Henriques on the list of contributors indicates that members of the Young Men's Committee of some months before maintained their interest in the founding of the Jews' Hospital. Rev. J. J. Lyons, rabbi of the Portuguese Congregation, and Rev. Ansel Leo of the B'nai Jeshurun Congregation, who had married Sampson Simson's niece, were included in these records. The familiar family names of Seixas, Hart, Nathan, Henriques, Morrison and Davies appear frequently, indicating the extent to which entire families were interested. This family tradition has continued throughout the Hospital's history. That the community as a whole was also sympathetic with the move is indicated by the donation of two hundred and fifty dollars from "A Priest."

The Board divided into groups to solicit funds from the various congregations. M. Hendricks Levy paid one hundred dollars as a life member of the Society and offered his services in collecting funds on a trip "through several of our states." By April of 1853, the Board decided that when the seven-thousand-dollar mark was reached, the Building Committee should be authorized to "enter into contracts according to specifications." By October 2nd of that year, Mrs. Hendricks and her daughter were notified that five thousand dollars were in the hands of the Treasurer and, as the records show, they fulfilled their promise by contributing a second five hundred dollars each.

Ground was broken for the Jews' Hospital in the fall of 1853. On October 30th, the Building Committee reported that in ten days the mason would be ready for the laying of the cornerstone. It was not until Thanksgiving Day, however, that the ceremony took place.

Invitations were sent to the "President, Trustees, and Hazanim [Cantors] of the several Hebrew Congregations in this City and vicinity; also the President, Directors and other Officers of the various Hebrew Charitable Societies," to members and subscribers of the Hospital Society, and to other interested persons. Guests were asked to "meet the officers and Directors at the Synagogue in Crosby Street on Thursday, November 24th, at 2 o'clock P.M. for the purpose of proceeding to lay the cornerstone of the Institution."

The minutes record that the Board and their guests "having formed in procession, proceeded by cars of the 8th Avenue Railroad at Canal Street to the ground in 28th Street." The railroad by which they proceeded was horse-drawn, with cars pulled on tracks, an innovation which had been introduced into New York twenty-one years earlier and was not to be superseded for another ten years.

"The trowel, having been presented by H. Hendricks, Esq. (Treasr.), chairman of the Building Committee with appropriate remarks, was received by the President S. Simson, Esq., who replying thereto proceeded to lay the cornerstone. Services were also performed by the Revs. J. J. Lyons, S. M. Isaacs, and Ansel Leo. The Board . . . subsequently attended the delivery of a Discourse by the Rev. S. M. Isaacs at the Wooster St. Synagogue. . . ."

By December, 1853, it was announced that the Hospital building had reached the height of one story, that the contracts let amounted to nine thousand dollars and that at least two thousand dollars more

were needed to meet that commitment. In order to raise this sum of money a "Dinner and Ball" was given in January of 1854, to which the committee decided that "ladies, as well as gentlemen, should be invited, well persuaded that in enlisting the sympathies of the gentler sex, their co-operation in so noble a cause could not fail to crown it with complete success."

This fund-raising event also marked the celebration of the laying of the cornerstone. It was held at Niblo's, a garden and restaurant on the corner of Prince Street and Broadway where the finest social functions of the day were held. "A very large and respectable company, composed of Israelites, and our fellow citizens of other denominations, assembled in the large reception room," read a contemporary report of the affair. At five o'clock, "after sufficient time had been allowed for friendly greetings, and an introduction to the venerable President of the Institution, they were ushered into the spacious banqueting-room, which had been arranged for their reception and entertainment; sixteen tables were spread. . . . The usual prayers, before and after meat, were performed by the Rev. J. J. Lyons, and Rev. Ansel Leo, after which the President stated in a brief speech the objects and requirements of the Institution. Toasts, as usual, appropriate to the occasion, were read, and addresses delivered. . . ." After the meal and the formalities had been completed "the company withdrew to the splendid ballroom" to dance the quadrille, polka, schottische and waltz.

The fund-raising, however, was by no means forgotten. Donations amounted to seven thousand two hundred and thirty-five dollars. Again a closely knit group rallied to support the Hospital, and names already prominent in its brief history are foremost among the donors. The Directors are listed among the first: Sampson Simson, Henry Hendricks, John I. Hart, John D. Phillips, Benjamin Nathan, John M. Davies, Theodore J. Seixas, Rev. S. M. Isaacs, and Isaac Phillips. The sons of two of these men, Lewis Phillips and Isaac Hendricks, seconded their fathers in helping the new institution. Miss Selina Hendricks, among others, demonstrated tangibly the "sympathies of the gentler sex." Emanuel B. Hart, who in 1857 was to be elected a Director and was later to be President of the Hospital, Lewis M. Morrison and Joseph Fatman are all included in the "Report and List of Donations." Henry I. Hart, chairman of the committee which gave the "Banquet and Ball," was joined by others of its members:

Henry Josephi, Jacob I. Moses, George S. Mawson, Dr. Simeon Abrahams. Five men who had been on the Young Men's Committee of two years before again gave assistance. They were Barrow Benrimo, George Henriques, Adolphus S. Solomons, Rowland Davies and L. Bierhoff. The names of Rev. and Mrs. Ansel Leo, relatives of Sampson Simson, and of Rev. J. J. Lyons of the Portuguese Congregation, again appear among the sponsors.

The long list of almost five hundred contributors on this single occasion also contains names which indicate that the efforts of the founders and their associates had aroused the sympathies and interest of many non-Jews: names of contributors included O'Brien, Campbell, Gilsey, Weeks, and Jewett. Of particular interest is the contribution of Dr. William B. McCready, a leading New York physician and a founder of the New York Academy of Medicine (1847), who was to become one of the Consulting Physicians to the Hospital when it opened the following year. Donations came from other cities—Philadelphia, Schenectady, Charleston, Baltimore, New Orleans and Chattanooga; for the development of railroads and the extension of the telegraph system six years before had begun to shorten distances and cities were being brought closer together.

The circle of those interested in the Hospital was widening.

A few weeks after the Banquet and Ball the Board received news of the generous legacy of twenty thousand dollars willed to the Hospital by Judah Touro, the wealthy philanthropist of New Orleans. With the impetus given to the Hospital funds by the success of the Banquet and Ball collection and by the encouraging news of the Touro bequest, the Directors turned their attention to the acquisition of more land.

Sampson Simson had given the Hospital one lot and had set aside the adjoining one for the erection of an "Orphan and Indigent Asylum." The Hospital, however, was apparently given the use of the second lot for a garden, although the Asylum continued to be mentioned as a future project.

The second Annual Report, dated December 31, 1854, indicates that the Hospital had bought "two lots of land extending from 27th to 28th Streets, with a front on each street of 25 feet, and situated on the easterly side of, and immediately adjoining, the lots donated by the President of this society. . . . The acquisition of these lots enabled the Directors to alter the original plans for the Hospital building, so

as to occupy a front of 50 feet on 28th Street; the lots in the rear, being those fronting on 27th Street, to remain open until otherwise required, so as to afford ample space for air and exercise." In reporting this to their membership, "the Directors . . . experience much satisfaction at the progress made within the last year. . . . This result thus far, is mainly attributable to the unprecedented success which attended the Banquet celebration of the 26th of January last."

The Touro bequest had not yet been received, "although the Directors are in daily expectation of receiving the amount of the legacy. . . ." Indeed, the minutes show that the month previous to the report, the Directors had signed notes amounting to five thousand dollars to meet the cost of construction. The building was nearly completed, however, and the report goes on to note that "arrangements are being made for furnishing the interior, and the building itself, it is contemplated, will be entirely finished within the next sixty days."

It is interesting to note that this early report bears the imprint "Adolphus S. Solomons—Print." The young man, who, during his German tour in 1851, had felt deep shame in admitting that there was no Jewish hospital in the United States, had by now established his own publishing house and was able to offer its services as well as his own efforts toward putting into effect his resolve that "such a reproach upon his native land should not long exist."

In February of 1855 Sampson Simson, now seventy-five years old, resigned as President, sending his fellow members of the Board "my fervent wishes for prosperity of the institution and your individual happiness." Despite the entreaties of a committee which was appointed to persuade him to alter his decision, the elderly founder held firm in his determination. The Directors elected John I. Hart, as President, with Benjamin Nathan as Vice-President and Theodore J. Seixas as Secretary. Henry Hendricks remained Treasurer. These elections took place in February of 1855, at the first meeting to be held in the Hospital building. A resolution of thanks was sent to the Portuguese Congregation for allowing the Board to meet in its synagogue during the previous three years.

On May 17, 1855, the building on 28th Street was dedicated and thrown open to the public. The dedication service was a religious one, a fact which drew unfavorable comment from Isaac Leeser, editor of one of the Jewish papers, *The Occident*. The invitation to

this "peculiarly interesting occasion, the first of this character to be recorded in the annals of our American-Jewish population," lists George Henriques of the Young Men's Committee as chairman, and as secretaries three who had served with him: Adolphus S. Solomons, Samuel A. Lewis, and Barrow Benrimo.

Services were conducted by Rev. J. J. Lyons and Rev. Ansel Leo. At the Banquet and Ball which followed, two of the speakers were Lieutenant-Governor Henry Jarvis Raymond and Israel Moses, Assistant Surgeon of the United States Army, soon to serve on the Jews' Hospital staff as an Attending Surgeon. It was announced that although it had been hoped to set aside part of the Touro legacy as a permanent fund, it had become necessary to use all but five thousand dollars of it in meeting the cost of building the Hospital, which reached the sum of thirty thousand dollars. Once more an appeal was made to the public, and donations amounting to six thousand dollars were subscribed.

The building was opened to public inspection; it was four stories high, with a large ward and several small ones on each floor. In the basement were the kitchens, offices and utility closets. A contemporary account reveals that "the ward . . . contained a number of bedsteads, near each of which stood an armchair. . . . Everything looked scrupulously clean and white. . . . For ventilation ample care had been taken, by having in every story openings, covered with metallic gratings, from the outside, so that pure air will always flow in, no matter what the state of the weather may be; we believe also that the draft through these openings can be stopped off should it prove too strong, as we felt during the ceremony of dedication. . . ." The account finds it worthy of comment that "water and gas are introduced."

The Croton water system had been completed thirteen years before the Hospital opened, but the Board minutes indicate that its use had to be paid for even though the Directors had petitioned the Common Council to relieve them of this expense. The editor of *The Occident* notes that in a small building behind the Hospital "there are separate rooms for pay patients." He remarked also that "the ladies of New York must not be forgotten in this connection, as they for weeks before the opening of the hospital were engaged in preparing the bedding and other things of the kind, in ample and we should judge abundant quantities."

3

Medicine in the Mid-Century

THE JEWS' HOSPITAL IN NEW YORK WAS FOUNDED IN A PERIOD WHICH was witnessing tremendous developments in the field of medicine. Dr. Henry E. Sigerist, the eminent medical historian, points out that a young country goes through three stages in the development of medicine: first, the period in which teachers must either be imported into the country or students must go abroad to study; second, the period in which medical education may be carried on at home by teachers native to the country; third, the period of scientific research when the simple pouring in of knowledge already obtained is amplified by original work. When the Jews' Hospital was founded in 1852, the United States was already passing into the second period.

American students and newly graduated doctors who could afford to do so went to Paris and other French centers of research and clinical medicine. Later in the century they were to go to German and Austrian centers which had taken over much scientific and clinical leadership. But it was also possible for Americans to receive medical training at home—some of it, in the older medical schools, quite superior; but much of it, in the "diploma mills," quite chaotic.

In the twenty years previous to the founding of the Jews' Hospital no fewer than fifty-three medical schools had sprung up in the United States. The great need for such schools—particularly in the West—stimulated the interest of enterprising physicians who soon discovered that a medical school could be very lucrative. A group of these men would determine to found a school, obtain a charter with little difficulty, establish themselves as the faculty and pay themselves with

the students' fees. There was no government supervision, equipment was inadequate, the libraries poor or nonexistent. Most schools had neither university nor hospital connections and, since the older system of apprenticing a student to a doctor until he was trained was disappearing, the majority of students graduated without any practical experience. The diploma which was given the student on graduation was accompanied by a license to practice. As a result, the country was flooded with incompetent doctors who were practicing on haphazard theory.

The era of calomel and cultists—homeopathy, hydropathy, Grahamism and Thompsonism, to name a few—reached new heights, not only because of the "diploma mills" but also because of the limitations of the professionally trained physicians.

By the time the Jews' Hospital opened, it was possible for an individual with little or no academic training—often nothing as advanced as high-school attendance or graduation—to attend lectures for the equivalent of one semester and graduate as a full-fledged doctor. Older, well-established university medical schools viewed this development with dismay but were helpless to correct it. The graduates of proprietary schools soon outnumbered and overshadowed the relatively few well-trained graduates of the established schools and added to the mounting public distrust of the distinguished medical schools and the medical profession in general.

This lack of confidence took the form of open and public attacks on the profession as a whole in public meetings and in the daily press. One of the direct results was the establishment of medical registries to distinguish qualified from unqualified physicians, an expedient that was to resolve only partly the problems posed by quackery, cultism and inadequate professional education.

It was to rectify such conditions that, six years before the founding of the Hospital, the Medical Society of the State of New York called representatives of the medical societies and schools throughout the country to a general congress in New York City on May 5, 1846. The Congress passed four resolutions: 1) that it would be to the advantage of the medical profession to form a national organization; 2) that it would be desirable for all medical schools to demand higher requirements for the degree; 3) that it would be desirable for medical students to be more adequately prepared in their premedical studies; 4) that the profession would benefit by taking upon itself the

enforcement of higher medical standards. The following year, 1847, the same body met in Philadelphia and founded the American Medical Association.

It was not, however, until twenty-six years later, in 1873, that Texas was the first state to set up a Board of Examiners to regulate the admission of medical students into practice. Texas was followed by the others—New York in the following year—but it was not until the end of the century, 1895, that practically every state in the Union had set up such a Board. But if medical education was confused in the early years of the Jews' Hospital, it was but a symptom of what was happening to the country as a whole and particularly to developments in medicine here and abroad.

Medicine in the mid-nineteenth century was in the clutches of "systems." The French were beginning to make contributions to scientific medicine, primarily through physiology. The largest part of their energies, however, were being devoted to descriptive clinical medicine, surgery and obstetrics, growing out of their experiences during the Napoleonic Wars. As teachers they gave foreign doctors, biologists and medical scientists much of the rationale, concepts, methods and techniques of research which were to make them leaders in their own countries.

The contribution of German medicine during this period was singular not only for its stimulation of research, but also for its systematization of knowledge. German medicine was largely responsible for the movement away from the purely speculative, philosophical and natural historical approaches to the experimental and the mechanistic. The Germans were quick to make use of the cell-structure formulas of Schleiden and Schwann and apply these concepts to the development of microscopic anatomy and experimental pathology. It was these two disciplines perhaps more than any other that lifted medicine out of the muck of humoral theories and placed it on the bedrock of verifiable science. The liberation of medicine from its long speculative history found expression among the Germans not only in research, but in clinical medicine as well. As a consequence, the great development of instrumentation, the notable advances in technology and clinical techniques that took place during the nineteenth century can be laid at the door of German medicine.

Among the many great technological advances was the discovery and introduction of anesthetic gases in surgery. As early as 1800 Sir

Humphry Davy called attention to the possible value of gases in surgery, after experiments with nitrous oxide. Intermittent attempts to discover and apply the precise gas for the precise purpose proved fruitless, however, for fifty years.

But ten years before the Hospital was founded in 1852, Dr. Crawford Williamson Long of Danielsville, Georgia, had used ether in removing a tumor. He did not publish his findings. Two years later Horace Wells, a dentist, of Hartford, Connecticut, had begun to use nitrous oxide in extracting teeth. A fatal case caused him to withdraw from practice, but not before he told his friend William Thomas Green Morton about his discovery. Morton continued the experiments and studied the effects of sulfuric ether. He persuaded Dr. John Collins Warren of the Massachussetts General Hospital to perform an operation on an etherized patient on October 16, 1846. Morton administered the drug. His attempts to keep its nature secret were of no avail. Ether became widely known and the terms *anaesthesia* and *anaesthetic*, coined by Oliver Wendell Holmes, were adopted. The results of the discovery were electrifying. Surgeons no longer needed to operate with lightning speed because their patients were fully conscious. Care and precision could be employed. Thus, only six years before the Jews' Hospital was organized, the way to modern surgery was opened.

A natural consequence of the discovery and application of gas anesthesia was the stimulus to discover other pain killers for both medical and surgical practice. These followed one after another throughout the nineteenth century. And American leadership dominated the field.

The counterpart to this leadership in anesthesiology was found in at least one branch of surgery. James Marion Sims, perhaps more than any other American, advanced gynecologic surgery to the point that shortly after the Civil War, the French, who had held mastery in this field, were to state that "America at the moment wields the surgical sceptre of the world." His story, in outline at least, is worth recounting.

Sims had led an uneventful medical career in Alabama until in 1849, in a small clinic which he opened in Montgomery, he found himself faced with three cases of vesicovaginal fistula. There had been few successful operations on such cases. After his first unsuccessful attempt in which the fistula would not remain closed, Sims obtained effective results by a special lateral position he had devised, a curved

speculum which he had invented, a catheter to keep the bladder empty while the fistula was healing and a special silver wire in place of the silk thread formerly used. In 1852 he published his findings. The following year he came to New York City, and in 1855—the same year in which the Jews' Hospital opened its doors to the sick poor—he was successful in having established the Woman's Hospital, a free institution of thirty beds, in which the most advanced gynecological work of the day was done.

In 1852 antisepsis and asepsis were unknown. Doctors themselves were frequently the worst carriers of infection from patient to patient. In the United States, one of the first steps in preventing such spread of infection was taken by Oliver Wendell Holmes in 1843 when he published the historic *On the Contagiousness of Puerperal Fever.* Holmes argued that no doctor should attend women in childbirth after he had been present at, or had attended, a case of puerperal fever. In thus making doctors directly responsible for this type of infection, which they had previously spread unwittingly but would thereafter do consciously, Holmes naturally ran into a storm of protest. Ignaz Philipp Semmelweis, who was preaching the same doctrine, was so persecuted that he had to flee his post in Vienna. Although some physicians followed Holmes' advice, many ridiculed him. In 1855, he returned to the attack with a new edition of his treatise. Its full acceptance, however, had to wait until the emergence of bacteriology as a science and the development of the laboratory as a hospital service.

Crude and empiric though it was, American investigative medicine was advancing on other fronts. One of its pioneers, William Beaumont, who died the year after the Hospital was organized, was in a very real sense the founder of American physiology. During the War of 1812 he had been an Army surgeon. In 1819 he had received an appointment as surgeon at Fort Mackinac. It was here that he met Alexis St. Martin and the relationship that was to shape digestive physiology was begun.

St. Martin, an employee of the American Fur Company, had been accidently shot at close range, receiving a full charge of buckshot in his side. Apparently hopelessly wounded, he was brought to Beaumont, who was able to nurse him back to life. Although considerably improved, the wound in his stomach wall refused to heal and a gastric fistula remained. For two years Beaumont tried to close the stubborn

wound, during the course of which he made careful observations on gastric activity. The result of these observations appeared as *Experiments and Observations on the Gastric Juice and the Physiology of Digestion,* nineteen years before the Jews' Hospital was founded.

Despite these advances in research and clinical work, American medicine was to remain essentially provincial and colonial almost up to the end of the nineteenth century. Unlike European medicine, neither government nor universities encouraged basic or applied research as an integral part of the educational process or of medical service. There was no single American city that could be truly called a center of medical research. There were few, if any, American physicians who could be truly called investigators and research scientists.

Despite the advances made by the early nineteenth-century American physicians, it would be a mistake to believe that the ancient and medieval systems of medicine were entirely relegated to the scrap heap. Indeed many of the inventions and newer techniques of the mid-nineteenth century encouraged enthusiasts both here and abroad to develop still more new systems, to attempt to treat diseases by single drugs or single methods.

Clinical medicine was still far from scientific. Such routine procedures in the examination of patients as counting pulse beat and respiration had still to be widely accepted. The sphygmomanometer, to measure blood pressure accurately, was thirty-five years from discovery when the Hospital was organized. Blood counts as part of the procedure in clinical diagnosis were still a novelty. The ancient practices of cupping and the application of leeches are frequently mentioned in the early case books of the Hospital. In these pre-Listerian days surgery of the abdomen, female pelvis, ear and eye, the joints and the skull were rarities.

Public health as a branch of medicine, despite pioneering efforts of a number of individuals, was still unknown. Sanitary conditions in the cities of Europe and America led to the labeling of the early nineteenth century as one of catastrophe, chaos and riot. Serious as was the frank sickness in the cities, incalculable damage was wrought by "subclinical" illness which kept the population socially, economically and politically depressed. Selective service would have found the populations in the cities far less able to provide sufficient manpower for military duty in those days than now. Commentaries of British and Prussian military medical authorities in the period immediately

preceding 1850 called attention again and again to the physical inferiority of men called to service from large urban centers. The cities, medically and socially, were indeed dangerous places in which to live.

The epidemic fevers—yellow, typhoid, typhus and cholera—were usually of such proportions, so cyclical and recurrent, as to force the establishment of special fever hospitals and fever wards. They were a constant problem to such hospitals as the Jews' Hospital. Their origins and severest impact were most often found in the overcrowded, insanitary, poverty-stricken slums of the cities. As a consequence, they often did not attract the attention or interest, or hold the concern of the wealthier classes. When they did so, it was more often than not because they had spread from the area of origin and constituted a threat to the whole population. Partly as a consequence of this threat and partly as a consequence of growing social responsibility, the wealthy leadership of cities, lay and medical, strove for the establishment of sound public-health programs.

Serious as were the fevers and such epidemic diseases as smallpox, pulmonary tuberculosis, though less dramatic, became the mark of the factory worker and slum dweller. Slow and insidious in its spread, quiet and undramatic in its killing power, a long time was required before it was to be accepted as an important factor in the nascent public-health movement. Public action, then as now, rested on the threat to the well-being of large masses of people. And threat was, no more then than it is now, fully appreciated in the absence of drama.

In America, during the early part of the nineteenth century, the repetitive and dramatic epidemics of yellow fever, typhus and typhoid, particularly in the large cities along the eastern seaboard, had that quality of drama and death to move the people to action. In the absence of clinical knowledge and procedures necessary to the adequate treatment and cure of these diseases, prevention and prophylaxis, primacies of public health, became imperative. The public-health movement of the nineteenth century found its roots, therefore, not only in the need for, but also in the absence of, clinical knowledge and instrumentalities.

The need for sanitary reform, intimately related as it was to social conditions, became the core of political reform. Virchow, the great German pathologist, became identified with the social revolution of 1848 by no mere accident, as did other great physicians of the period, for they saw in the disease and death of their day the whole indict

ment of the society in which they lived. Sickness and death to these medical men and social reformers were no accidental by-products of industrialization and urbanization, but essential parts of the social fabric of the day. As a consequence, they saw that the whole cloth had to be redesigned in order to affect the health of the people. It is not surprising, therefore, that medical leadership represented great social leadership during that period.

The prime characteristic of the public-health movement in the mid-nineteenth century essentially was its dramatic social-reform quality. Focused as it was on a local—community or city—rather than a national level, the early crusading sanitary organizations seemed to be created for the patent purpose of arousing fear, indignation or enthusiasm. Using the press and public meetings, they directed their efforts to arousing public opinion in order to obtain remedial action on specific health hazards or problems. From this it should not be inferred that they were irresponsible drum beaters or self-centered evangelists. Their effort and enthusiasm were rooted in the realities of medical and sanitary science. They should not be confused with so many other "romantic" social-reform movements of the period.

Among the many productive, positive results of the early local public-health organization activities were the establishment of efficient health agencies and activities such as boards of health, sanitary water supplies and sewage-disposal systems. Inasmuch as the youthful local boards of health established in the mid-century were essentially advisory in nature and function, the voluntary public-health associations continued for a long period of time to play a vital role in the initiation and administration of health services.

In the fifties, a few years after Mount Sinai was first founded, when New York City, then with a population of over 700,000, was threatened with a cholera epidemic, Mayor Wood refused to call the Board of Health together. At the time the Board was entirely lay in character, consisting of members of the Board of Aldermen. Wood frankly considered the Board more dangerous to the City than the impending epidemic.

The attitude of the Hospital in that epidemic, in other epidemic "fevers" and the confusion that still surrounded typhoid and typhus is traceable through the early records. Although William Wood Gerhard established a differential diagnosis of typhoid and typhus as

early as 1837, the two diseases were still considered identical and contagious in the 1850s.

When the Hospital opened for the reception of patients in 1855, the minutes of the Board of Directors' meetings indicate that on February 11th a ruling was set down prohibiting the admission of typhoid patients. So numerous were the applications of such victims, however, that, in 1856, the Medical Board advised "that . . . the simple fact of a disease being contagious should not preclude its reception into an Hospital, and that proper regard to separation, ventilation and the number admitted to the ward will obviate to a great extent any danger from the reception of patients suffering from typhoid fever." Typhoid cases were admitted thereafter at the discretion of the Executive Committee of the Board of Directors. However, it was not until 1863, twenty-six years after Gerhard's contribution, that the prevailing opinion concerning typhoid fever's contagiousness is to be found in the following resolution passed by the Medical Staff and signed by Drs. A. Jacobi, E. Schilling and A. I. Henriques:

> Whereas typhoid fever is, under ordinary circumstances, no contagious disease, the cause of its becoming so being rare both in this City and Hospital, there can be no objection to admitting cases of typhoid fever into the Hospital. The Medical Board would recommend such cases to be intermixed with other patients in the same wards, unless there may occur apparent reasons for isolation in a separate ward.
>
> Whereas, further, typhus fever although more contagious than the former, will not develop its contagious character in a clean and spacious hospital in the same degree as in the filthy and overcrowded abodes of poverty and disease, and, therefore, will not produce the same danger for any member of the community at large.
>
> Whereas, then, by running a *very small* risk from the contagiousness of the fever, will avert a *very great* danger from the community.
>
> The Medical Board recommend the reception of a small number of cases of typhus fever, at the same time they recommend these cases to be isolated in an airy and spacious ward.

Actually there was no Medical Board as such in existence. Two of the signatories, Drs. Jacobi and Schilling, were instrumental, with the help of others on the senior staff, in creating the Board in 1872. The seniors on the staff were already among the great in American medicine when the Hospital incorporated in 1852.

Even before its building was completed, they had offered their services. Valentine Mott, the dean of American surgery, was among the first, in 1853, to express his readiness to serve on the Staff. He was in his sixty-eighth year, the outstanding surgeon of his day and a pioneer in vascular surgery. His teacher, Sir Astley Cooper, spoke of him as one who "has performed more of the great operations than any man living." He is said to have amputated almost a thousand thighs and was the first to place a ligature around the innominate artery only two inches above the heart. At one time, in 1828, he had to tie forty arteries in a single operation which lasted four hours. Such operations appear all the more astounding when it is considered that they were performed before the days of anesthesia.

The first Staff, announced by the Board of Directors on May 21, 1855, included many other prominent physicians and surgeons practicing in New York. These men had faith in the efforts of Sampson Simson and his associates. There were four Consulting Physicians. One was Chandler R. Gilman, a witty conversationalist who in his younger days had supplemented the meagre earnings of his early medical career by writing. He was Professor of Obstetrics and Diseases of Women and Children at Columbia University's College of Physicians and Surgeons, having been appointed in 1841. In 1894 he was one of the few contemporary physicians to insist that there was such a thing as criminal insanity and that such criminals should have special treatment. Another was William Detmod, a German, who had introduced orthopedic surgery in New York. Detmod founded an orthopedic clinic at the College of Physicians and Surgeons in 1841, and was to be the first President of the New York County Medical Association in 1884. William H. Maxwell was the third Consulting Physician, while the fourth was Benjamin W. McCready.

The two Attending Surgeons were Israel Moses, an Army surgeon who also had contributed toward the building of the Hospital, and Alexander B. Mott, son of Valentine Mott, and his father's assistant during the last sixteen years of the elder Mott's practice.

There were also three Consulting Surgeons. In addition to Mott senior, there was Thomas M. Markoe, one of the founders of the New York Academy of Medicine, and Willard Parker, a brilliant teacher and surgeon and co-founder of the Cincinnati Medical College.

The Resident and Attending Physician was Mark Blumenthal. A

member of the Portuguese Congregation and its official physician, he had served its sick poor as well as half its membership for many years. "At a meeting of the Directors held on Monday the 21st Inst.," his letter of appointment reads, "you were unanimously elected Resident Physician to this Institution, & [this is] to apprise you that the Hospital will be opened for the reception of patients daily." The letter was signed by Theodore J. Seixas, Secretary. Dr. Blumenthal was paid two hundred and fifty dollars for his first year's service, and in the following year he received five hundred dollars.

4

The Hospital at Work: Peace and War

THE HOSPITAL DOORS WERE THROWN OPEN FOR THE RECEPTION OF patients on June 5, 1855. A record of the first case was entered in the case book by Dr. Blumenthal on June 8th. The patient was Louis Seldner upon whom Dr. Moses operated successfully for a fistula. During the remainder of that year, from June through December, 110 patients were admitted. The Hospital's full capacity was forty-five. From December, 1855, through December, 1856, 216 patients were admitted. Only sixteen were asked to contribute to their support under the ruling, "No patient having the ability to pay shall receive the benefit of the Society without charge."

The expenses of the Hospital during its first year of activity offer interesting figures when compared with those of the Mount Sinai of today. The Finance Committee of the Jews' Hospital reported in 1857 that the total expenses for the year 1855-56 had amounted to a little over $5,493. The items included in the account are worth examining:

Provisions	$1,726.87
Medicines and Surgical Instruments	447.61
Salaries and Wages	1,511.14
Fuel	297.10
Stationery	33.36
General Expenses, Croton Water, Gas, Assessments, Repairs	1,049.50
Clothing for Patients, Beds and Bedding	429.18
	$5,493.76

Mount Sinai's total expenses for 1951 were $5,856,422.50.

In contrast with $447.61 spent by the Jews' Hospital on medicines and surgical instruments, the modern Mount Sinai spent $622,706.96 in 1951—over 113 times the entire amount the little institution on Twenty-eighth Street spent in a year.

Other portions of that early financial report show similar contrasts. In 1855-56 a little over $1,500 was spent on salaries and wages, while salaries and wages in 1951 came to more than $3,362,500.00, constituting over 57 percent of the modern Mount Sinai's total expenses. Food cost the Jews' Hospital approximately $1,726; today Mount Sinai spends $682,125.10 annually for food. In 1857 the Finance Committee took pains to explain that although the fuel bill amounted to only $297.10, there had been on hand $200 worth of coal, so that the actual total cost was raised to $497.10 for that year. To feed the boilers which generate steam for heating, cooking, sterilization of instruments, and providing power at the modern Mount Sinai, over $169,600.00 was spent for oil in 1951.

Of great significance is the fact that included in the sum expended by Mount Sinai in 1951 are items which are conspicuously absent from the brief statement of 1855-56: the School of Nursing, the Social Service Department, the Out-Patient Department, the Laboratories, research, and post-graduate medical education. These branches of hospital work did not exist in the days when the Jews' Hospital first opened its doors. Their gradual inclusion in later reports forms a series of milestones as much marking the progress of medicine as of the Hospital itself.

In its first years the work of the Hospital was sectarian. Two days before the Hospital was opened for the reception of patients the Board passed a resolution ". . . that the Visiting Committee be instructed not to receive any patients other than Jews except in cases of accident, until further notice of the Board." The same religious principles which set the regulations for the Visiting Committee also controlled the matter of post-mortem examinations. On December 5th of that first year of service, Dr. Blumenthal asked permission of the Board to perform a post-mortem examination in order to evaluate his diagnosis critically. Permission was granted, but only by a margin of one vote. As the result of the controversy which followed this decision, a letter was sent to Rev. N. M. Adler, Chief Rabbi of All Jews in the British Empire, asking his advice on the subject. The

answer was that autopsies were desecration of the dead with only two exceptions: when someone is accused of murder and an autopsy may prove that the deceased died a natural death; and when the cause of the disease is unknown and other patients exhibit symptoms similar to those of the deceased. This opinion was accepted, but nevertheless permission to make post-mortem studies was granted often, usually by a close vote of the Board. In the years between 1855 and 1870 the minutes show only one occasion when such permission was actually refused.

As the Hospital grew, its activities necessarily spread beyond its immediate building. Dr. Blumenthal's report, covering 1856, explains this expansion: "At first its [the Hospital's] charities extended only to its inmates, only special cases receiving care outside the walls of the Institution. These out-door patients were also attended to if able to come and present themselves once or twice weekly; and in this direction, the Hospital's usefulness has now extended so far that it deserves to be considered one of its most important branches particularly as the German dispensaries, to which many of our poor resort, are downtown, too far to be available to the poor in the upper part of the city." Many years elapsed, however, before an Out-Patient Department was established as a distinct unit.

Continuing his report, Dr. Blumenthal pointed out that of the two hundred and fifty patients admitted in 1858, fifty-four were "pedlars . . . a fact ascribable to so many immigrants being cast upon our hospitable shores without profession or trade. On the female side, forty-nine are domestics, a class that in view of the many hardships to which its members are exposed, is deservedly considered as highly worthy of the benefits the Hospital can offer. Many of this class are very young, and have in their homes enjoyed comparative comforts, having, perhaps, never before been separated from their natural protectors, but are here coerced into service as a means of subsistence."

In 1859 the Board turned its attention to the reorganization of the Medical Staff. The position of Resident and Attending Physician was abolished. Instead, three Attending Physicians were appointed, and the position of House Physician and Surgeon created. One of the Attending Physicians thus appointed was Abraham Jacobi, whose close association with, and influence on, the Hospital extended from the year of his appointment in 1860 until his death in 1919.

Dr. Jacobi was born in Germany in 1830, and came to the United

States in 1853, the year after the Hospital was founded. In the manner of European students of that day, he had gone from one University to another, from Greifswald to Göttingen and from there to the University of Bonn, from which he was graduated in 1851. He first studied Oriental languages, but soon was attracted to medicine through his interest in anatomy and physiology. Meanwhile the Revolution of 1848 broke out, and the young student was drawn into the struggle. When he went to Berlin to appear for his examinations, he was seized by the Prussian authorities and imprisoned for a year and a half in the fortress at Cologne. Finally, acquitted of the charge of treason, he was convicted of lèse majesté and sent to Minden. He served only six months of his sentence. Having gained the friendship of the jailer, he made his escape to Hamburg where he boarded a ship for England. From England he embarked on a forty-three-day voyage to the United States, landed in Boston and from there made his way to New York. He set up offices at 20 Howard Street and in the first year of practice earned nine hundred seventy-three dollars and twenty-five cents by charging twenty-five cents for office visits, fifty cents for house calls and five to ten dollars for obstetrical cases.

One year before Dr. Jacobi was appointed to the Staff of the Jews' Hospital, he had written, in collaboration with the gynecologist Emil Noeggerath, *Contributions to Midwifery and Diseases of Women and Children*, a book which was published at a cost of eight hundred dollars to the authors. The unbought copies were a drag on the publisher, and the authors bought the entire edition, but having no space to store it, sold all the copies for waste paper. Despite its conspicuous lack of success, the book has historical value as one of the first efforts in that field.

Jacobi adopted the United States as his home with a devotion which many years later, in 1903, was to make him reject the coveted Chair of Pediatrics at the University of Berlin. His acceptance of the Chair of Pediatrics at the College of Physicians and Surgeons is generally recognized as the beginning of clinical and scientific pediatrics in this country. By 1860 he held the special Chair of Diseases of Children at the New York Medical College. Here, two years later, he established a pediatric clinic—the first in this country. The New York Medical College, however, did not survive the Civil War, since many of its students were Southerners who left the city. In 1865, Jacobi accepted the clinical chair in the Medical Department of the Uni-

versity of New York, and in 1870 was appointed Clinical Professor of Pediatrics there.

According to the rules laid down with the reorganization of the Medical Staff of the Jews' Hospital, the House Physician and Surgeon must be a medical graduate, to be appointed for one year by the Board of Directors after having been examined by the Medical Board. The young man thus appointed was Dr. Seligman Teller, who served in that capacity for twelve years. His salary for the first year of his service was one hundred and fifty dollars, and later was gradually increased to four hundred dollars. When the young doctor married, in 1867, the Board of Directors rented one floor of a building adjacent to the Hospital for the sum of three hundred dollars a year as a home for the doctor and his bride. Dr. Teller contributed one hundred dollars to the rental.

The reorganization of the Medical Staff was taking place when the threat of civil strife was hanging over the country. When the War actually broke out there was, at first, some talk of New York remaining a free and neutral city. That idea was soon dispelled and instead New York became the base for Union supplies. Moreover, on April 19, 1861, the City voted one million dollars for the defense of the Union. On the same day the Seventh Regiment, with nine hundred and ninety-nine men, marched off to Washington. On April 20th, one hundred thousand people expressed their whole-hearted support of the Union at a mass meeting in Union Square. A Union Defense Committee was organized on April 22nd and continued to function until April 20, 1862. During that year it raised and gave to soldiers' widows and orphans over one million dollars. In the first year of the war, a circular addressed to ". . . the women of New York and especially to those already engaged in preparing against the time of wounds and sickness in the army," urged that a system of caring for the sick and wounded be organized. The Woman's Central Association for Relief was formed, and out of its work grew the United States Sanitary Commission.

Three days after the mass meeting of April 20, 1861, the Directors of the Jews' Hospital passed a resolution ". . . that the Board of Directors tender to the State authorities a ward in this Hospital for the accommodation of such soldiers who may be wounded in the service of the United States." The minutes of the Directors' meeting for

June 18, 1862, indicate that forty-eight beds were bought for the soldiers as well as medical supplies in appropriate quantities.

Rules for the admission of soldiers excluded those afflicted with contagious diseases, and permitted the acceptance of only ten typhoid fever cases. Apparently ten such cases were all that could be accommodated on a separate ward. The minutes of September 7, 1862, show that a special book was to be kept for donations to the soldiers and that on September 21st, twenty-one more beds were provided for soldiers, bringing the total number of beds available for them up to sixty-nine.

The course of the War was accordion-like at first but gradually the North began to win by dint of superior strength, a superiority due largely to the immigrants who had volunteered or were impressed into service. These foreign-born troops frequently were thrust into desperate actions. At Antietam the Irish Brigade was decimated in an attempt to hold an untenable position. At Gettysburg Pickett's famous charge was virtually stopped and, in fact, the back of General Lee's Army was broken, largely by the exploits of German immigrant troops from Wisconsin, many of them so recently arrived in the country that they still could not speak English. Despite these exploits, the need for new troops found the headline writers demanding that quotas be raised largely from immigrants who, after all, should defend the country which had given them their livelihood and succor.

In 1863, a new draft was readied, a draft designed to draw in family men, since the unmarried youth of the nation had already been drained. In keeping with the practices of the period, anyone who could pay $300 or hire a substitute could be exempt from military service. The inequity of this provision in the draft, perhaps more than any other factor, did much to rend the nation further. Resistance to the draft moved rapidly from ground swell to storm proportions. In the City of New York, for example, marshals took the names of potential draftees by lining up workingmen on the streets at pistol-point. Long before the lists were to be published in the city, it was an open secret that the draft was to be invoked largely against the foreign-born and workingmen.

Metropolitan police, originally a State force but now having no legal standing, as well as a corps of volunteers, largely comprising merchants and brokers, were organized to cope with the insurrection they anticipated. The insurrection came but a day after the publica-

tion of the draft lists. Beginning in the upper West Side tenement district, men, women and children, to whose ranks soldiers on furlough were added, moved from one street to another, gathering speed and force. Splitting into two detachments, they moved down Sixth and Seventh Avenues to 46th and 47th Streets and then moved east to the draft office on Third Avenue. Within a matter of minutes, they overran the police detachment protecting the office and fired the building. The blaze spread rapidly and soon touched off the adjacent buildings.

Up to that point the crowd had not evolved into a killer mob. A short time afterwards, however, when troops which had been quartered in Central Park fired on the group, the conversion had become complete. The troops, before they could reload, were soon overrun. The police detachment, appearing upon the scene shortly thereafter, was no more successful. Its blood up, the mob rampaged. One segment moved to Second Avenue to seize the gun factory at 20th Street; overrunning the police guard which killed the first rioter to approach the factory, the mob gained its objective and guns. Another segment of the mob moved to Fifth Avenue to attack the Tribune Building. Another fired buildings on Broadway and 24th Street. Looters were soon out in force and the elegant mansions on Lexington Avenue were sacked and burned. Every building on Broadway between 28th and 29th Streets was burned to the ground.

In the rioting blood lust, professional Negro haters had their day, beating and killing Negroes and crowning their work by burning the Negro Orphan Asylum. The geography of the rioting was such that Jews' Hospital was frequently the center of its fury, and as events turned out, during the bloody days that ensued, it became the sanctuary of the sick and the wounded.

The day following the initial outbreak found the city faced with a general strike, and more blood was yet to flow. A second, a third and a fourth day of bloody battle involving police, Regular Army troops called in from Pennsylvania and West Point—cavalry, infantry and artillery—and volunteers found themselves involved in what history books record as the *draft riots* but which was, in fact, bitter street-to-street warfare.

In an effort to prevent open rebellion, the authorities announced that the draft had been suspended. Wary of the announcement, the rioters were not appeased. They knew that more soldiers were needed

for the successful prosecution of the War and that there could be no suspension of the draft. They demanded, however, that exemptions be made on the basis of dependency rather than of economic status. The authorities would have nothing to do with this scheme, for it virtually meant that only the well-to-do, heretofore protected, would be subject to call. On the other hand, these interests were faced with the reality of four days of continuous victory by the mobs and the fact that with the exception of the most southern tip of the island, the entire city was in the hands of the rioters. After much behind-the-scenes negotiations, the Common Council voted an appropriation of nine million dollars to pay the draft exemption fees for the poor. The rioting ceased almost immediately.

Because no accurate statistics are available, since the military did not publish their lists of dead and wounded and rioters carted off their dead and buried them secretly, there is no way of knowing what the "Battle of New York" cost our citizenry. The Metropolitan police fixed the figure at 1200 men, women and children killed. Some fifty buildings were sacked and burned and the total property loss was estimated to run between $1,500,000 and $2,000,000.

With the last victim of the draft riots discharged, the Hospital's war work was far from done. In 1864 a fair was held in buildings on Fourteenth Street and Union Square in order to raise money for the United States Sanitary Commission; it yielded over one million dollars. On June 8th of that year the minutes of the Directors' meeting show that Dr. McDougall, Medical Director of the United States Army for the Department of the East, inquired whether soldiers might again be cared for at the Jews' Hospital. The reply voted by the Board was that fifty soldiers could be accepted, subject to the rules concerning contagious diseases.

As in every subsequent war throughout the Hospital's history, men on the staff and members of the Board volunteered their services. Among them was Dr. Israel Moses. Moses had served in the Army from 1847 to 1855. He resigned from the Staff in June, 1861, was commissioned a Lieutenant Colonel in the 72nd N. Y. Volunteers, serving until July, 1865. Then there was Joseph Seligman, elected to the Board of Directors in 1855, who was often called to Washington to consult with President Lincoln on financial matters. Because of his increasing responsibilities, he found it necessary to resign from the Hospital Board in 1862.

Sensitive to their obligations to the country and the community during this period, the Board of Directors was also preparing the ground for the nonsectarian policy which has distinguished the Hospital ever since. Accident patients of all nationalities, races and religions had been accepted since the first day of the Hospital's existence. But the national crisis crystallized the Board's determination to rise above sectarianism and abolish it completely. In 1864, the Executive Committee had reported, "The Committee deem it proper to observe that many of those admitted to the Hospital were not of our faith, no distinction ever being made as to either the nationality or the religious belief of the sufferer." *Valentine's Manual* for 1865, in describing the Hospital, states, "Although the Hospital was founded by gentlemen of the Hebrew faith, yet the benefit of this excellently managed institution, which is supported entirely by the contributions of its members, is freely extended to all, of every religion or nationality, and the visitor will often find under the care of its officers, sufferers who widely differ in the matter of religious beliefs."

Yet it was difficult to convince the public of this non-sectarian policy, and the Hospital was suffering accordingly. The 1867 report explains this: "The Directors have had to encounter much opposition in making their claims on the charitable fund of the city and state in consequence of the name of the Hospital, it being alleged as 'sectarian' and not for the benefit of all who may seek its protection and care."

By special act of the Legislature in 1866, the Jews' Hospital in New York became "The Mount Sinai Hospital."

The close of the Civil War saw the birth of another Mount Sinai tradition, touching the life of the community and the nation through its staff. The era of organization of public-health services and agencies was about to begin. On the local scene, in 1866 the Metropolitan Board of Health was created and Willard Parker, Consulting Surgeon to the Hospital, was appointed one of the four commissioners. On the national scene, Dr. Israel Moses, who had been active as an Army surgeon during the war as well as with the U.S. Sanitary Commission, was one of a group of physicians and sanitarians who laid the groundwork for the establishment of the American Public Health Association. This organization, the largest single body of professional public-health workers in the world, has been singularly instrumental in shaping not only the health patterns of the United States, but of

many other countries as well. The work of these early founders focused attention on the need for general sanitary reform and a national health agency, ultimately forcing the Marine Hospital Service of the Treasury Department to assume the responsibility and role of the present-day U.S. Public Health Service.

The close of the Civil War saw other influences at work—in medicine, in technology, in the growth of the city and in the need for larger quarters for the Hospital. While the battles of men against men were taking place in the United States, a French chemist named Louis Pasteur and an English surgeon, Joseph Lister, were opening new fronts and waging wholesale warfare on micro-organisms. In 1867, Lister published a paper, *On the Antiseptic Principle in the Practice of Surgery*, which was to revolutionize medicine, surgery and public health thereafter. The task of vitalizing, systematizing and applying the knowledge of the hidden world of Pasteur and Lister would later be shared by scientists of all nations.

In those early years bacteriology was concerned with three major problems. One was the debate concerning spontaneous generation and the origin of bacterial life. The other was the discovery and classification of new organisms. And the third was the application of these discoveries to practical, clinical medicine. In the beginning the leaders of this nascent science were, in the main, chemists, biologists and microscopists rather than physicians.

In a sense they were placer miners. The bacterial nuggets lying on the sick surface of society were waiting for the perceptive eye and deft hand to pick them up and to test their substance and value. The discoveries were important but their application and the birth of medical bacteriology as such had to wait for other developments. One of these was the discovery in 1871 by Carl Weigert of a method of staining bacteria, which opened the door for the intensive investigation of the form and function of bacteria, not merely their identification and classification. Four years later Ehrlich developed the aniline dye method of staining bacteria—another forward step—and in 1884 H. C. J. Gram reported his differential staining method. Koch, discoverer of the bacillus of tuberculosis, devised two major techniques—one of fixing bacteria on slides, the other of culturing bacteria. This last made possible the separation of various strains, the development of pure cultures and the intensive study of their physiology. Laboratory science, at this point, was assuming its contemporary outlines. Mount

Sinai staff members were among the first American physicians to study these new techniques and bring them back from Europe.

While all this was taking place on the scientific front, the face of New York was changing rapidly. In 1866 the Metropolitan Board of Health was created. A year later the first law to regulate tenement houses was enacted.

Both of these developments were largely the outgrowth of the bloody riots of 1863 and the demand of the citizenry for improvements in their way of life. The effects of these laws were not widely felt in the beginning. The changes they wrought began with such seemingly small items as the ruling that stairways must have banisters, that tenements must have fire escapes and that a privy must be furnished for every twenty tenants. In 1869 the Board of Health ordered transoms cut in 46,000 unventilated rooms. Recurring epidemics of smallpox and cholera throughout that period, however, delayed the execution of this work until 1874. Some idea of the overcrowding of the Civil War period can be gathered by the fact that in the last year of the war, 20,000 tenement houses held 160,000 families and more than one-half million people.

The strength of the nation, resting potentially on its children and youth, was sorry to behold. In the wake of the war, 10,000 children roamed the streets of New York. At the opening in 1872 of the second Mount Sinai Hospital, these vagabond children begged, stole, starved. Many of them died of hunger in the streets of the city. By the time they were fifteen, many of them had become confirmed thieves or prostitutes, imprisoned one or more times. At the other end of the scale, a large army of these children formed the industrial assault force of the city, working around the clock as laborers out of doors and in the factories.

The city itself was on the move, geographically, to the north. Prior to the War there were only sparse settlements above Forty-second Street. Post-war speculation and a building boom, encouraged by the Tweed Ring, brought with them a frenzied expansion of the city. The city began to assume something of today's aspect. Madison Avenue was graded. St. Nicholas Avenue was created. Seventh Avenue and Broadway from Twenty-fourth Street to Central Park were broadened.

In 1865 a paid Fire Department replaced the volunteer group which had previously served the city, and hand-pumped engines were replaced by steam. That same year saw the introduction of "French

Flats," the predecessor of the modern apartment house. Seasoned New Yorkers predicted the failure of so crazy a scheme, outraged at the notion of asking any but slum dwellers to house their families in a series of rooms all on one floor. Nevertheless, the idea took, and apartment dwelling became a reality without which today's New York would be inconceivable.

Transportation, already a problem, had to be improved. In a growing and industrialized city whose northern limits were constantly pushing uptown, there was still no convenient way of traveling from one end to the other. In 1866 an elevated railroad, operated by a cable and running on a single track, had been created. It ran from Battery Place through Greenwich Street to Ninth Avenue and Thirtieth Street, terminating only a few blocks from the Hospital. Steam was later substituted for the cable, but subsequently the line failed. Between 1868 and 1870, two underground roads as passageways for traffic were chartered, but never constructed. The first Rapid Transit Commission was created in 1875. Not until 1878 was a steam elevated line to be built, from Rector Street to Central Park.

The means of getting from New Jersey, Brooklyn, Staten Island and Williamsburg to New York assumed great importance in the winter of 1866-7. Ferries usually carried the farmers who brought their produce to the city from the outlying districts, but during that winter the rivers around Manhattan Island were frozen much of the time. It was then that New York turned its mind to the construction of bridges. In 1867 John A. Roebling was chosen Chief Engineer of the New York Bridge Company. The erection of the Brooklyn Bridge was begun, although it was not completed for many years.

The period during which New York was beginning to meet the problems of a growing cosmopolitan city had its effect on the little Hospital on Twenty-eighth Street. The surroundings, which had been so rural when Sampson Simson donated the first plot of ground, had changed slowly. As elevated lines were built, as new streets were opened and old ones graded, as the city pushed its way uptown, the Twenty-eighth Street neighborhood took on an industrial aspect and the old residences degenerated into slums. The Hospital's surroundings were no longer either quiet or healthy.

The Hospital buildings, which accommodated only sixty-nine patients, even with the additions made from time to time, were becoming increasingly inadequate. The report for 1867 shows that there

were 594 applications for admission in the previous year, and 564 were accepted. The value of Mount Sinai to the district it served is amply indicated by comparison of that year's admissions with the numbers admitted in the first six years of the Hospital's existence: 1855, 113; 1856, 212; 1857, 220; 1858, 250; 1859, 221; 1860, 269.

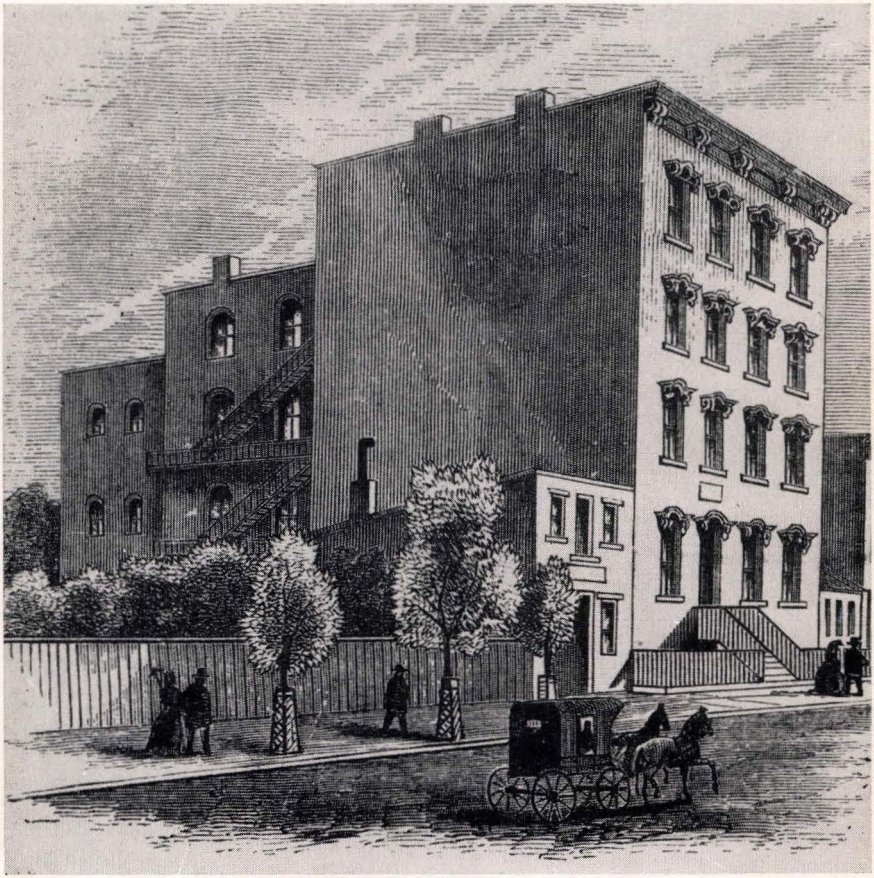
On December 28, 1866, the Medical Staff addressed to the Board of Directors a letter condemning the First Ward during the summer months because ". . . its proximity to the street renders it obnoxious from the effluvia arising from the garbage and its surroundings. The very insufficient ventilation is injurious to the patients and detrimental to the health of the nurses and attendants." Moreover, the report of the House Physician and Surgeon pointed out that the Fourth Ward was unusable in winter because the heat from the furnace was not adequate to reach more than three wards. In 1855 the Hospital had had the best that was known in ventilation, heating and sanitation; but in 1867 engineering had made sufficient progress to leave the methods of 1855 behind. For these reasons the 1867 report states:

"The location of the Hospital, we regret to say, becomes daily more and more unpleasant, and its size and accommodations inadequate for the wants of our people. . . . The chief essential, in the locality of a Hospital, is pure air and plenty of it, whilst its surroundings should be cleanly and cheerful, calm and tranquil, in all of which health-promoting requisites, it is to be regretted, the present site is quite deficient."

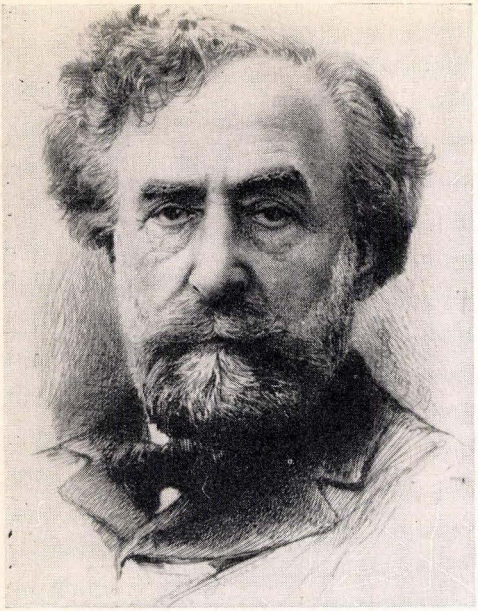
The incident which finally convinced the Directors that the Hospital must be moved occurred in 1868, when a steam boiler exploded in an adjacent factory.

"The scene of this frightful accident was about one hundred feet from the Hospital. . . . It is sufficient to say that the buildings were in danger; the walls were shaken, the windows shattered; but we are glad to add no serious damage was done to the Institution. The panic among the patients having been allayed, and their terror tranquillized, the doors of the Hospital were immediately opened to the wounded, the dying and the dead."

On November 2, 1867, the Finance Committee was authorized to buy ten lots of land running from Sixty-fifth to Sixty-sixth Street west of Fourth (Park) Avenue. On October 6, 1868, however, a grant was secured from the city for twelve lots running from Sixty-sixth to Sixty-seventh Street on Lexington Avenue on a ninety-nine-year lease at the

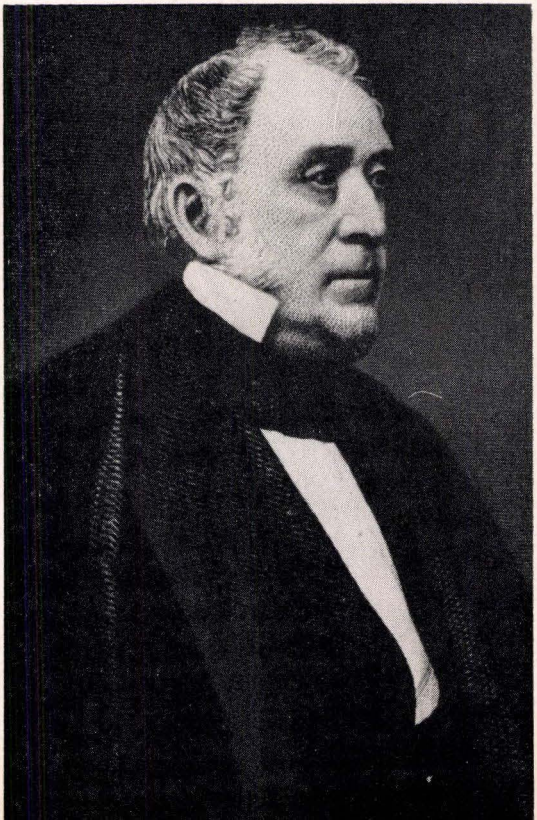


The First Mount Sinai Hospital: The Jews' Hospital on West Twenty-eighth Street



Dr. Abraham Jacobi

Dr. Valentine Mott



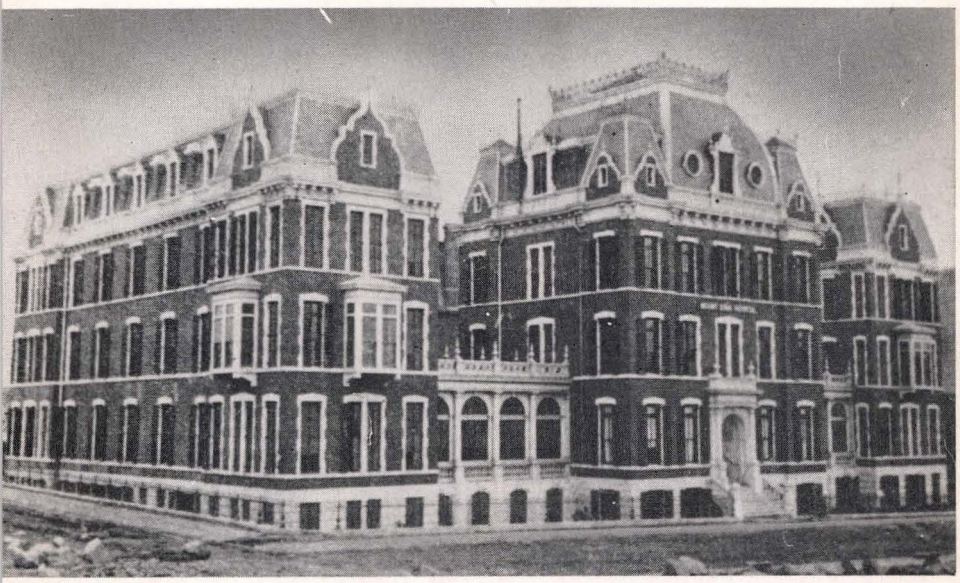


The Rioting Around The Tribune *Building. (Based on a Contemporary Drawing)*

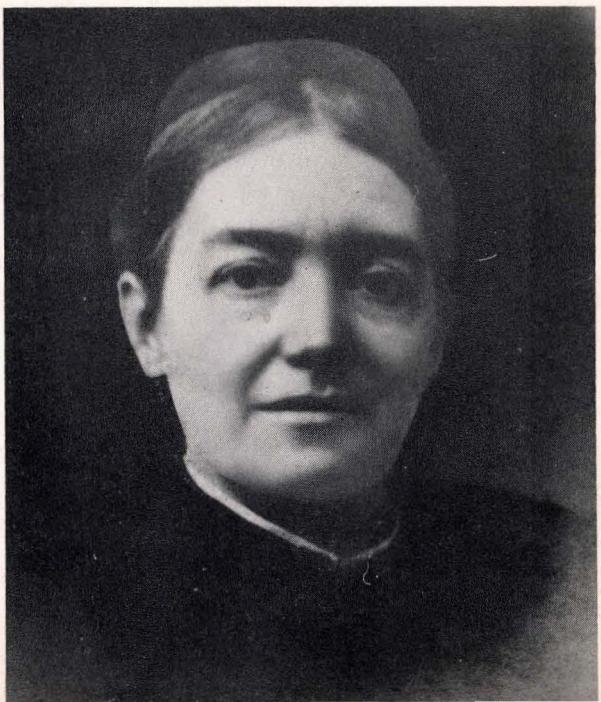


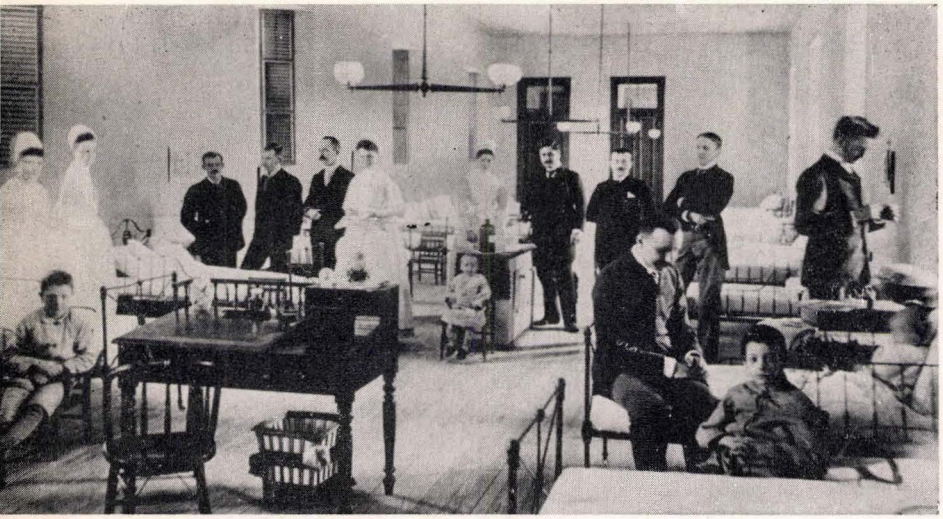
Dr. Israel Moses

The Mount Sinai Hospital on Lexington Avenue, 1872



Dr. Mary Putnam Jacobi

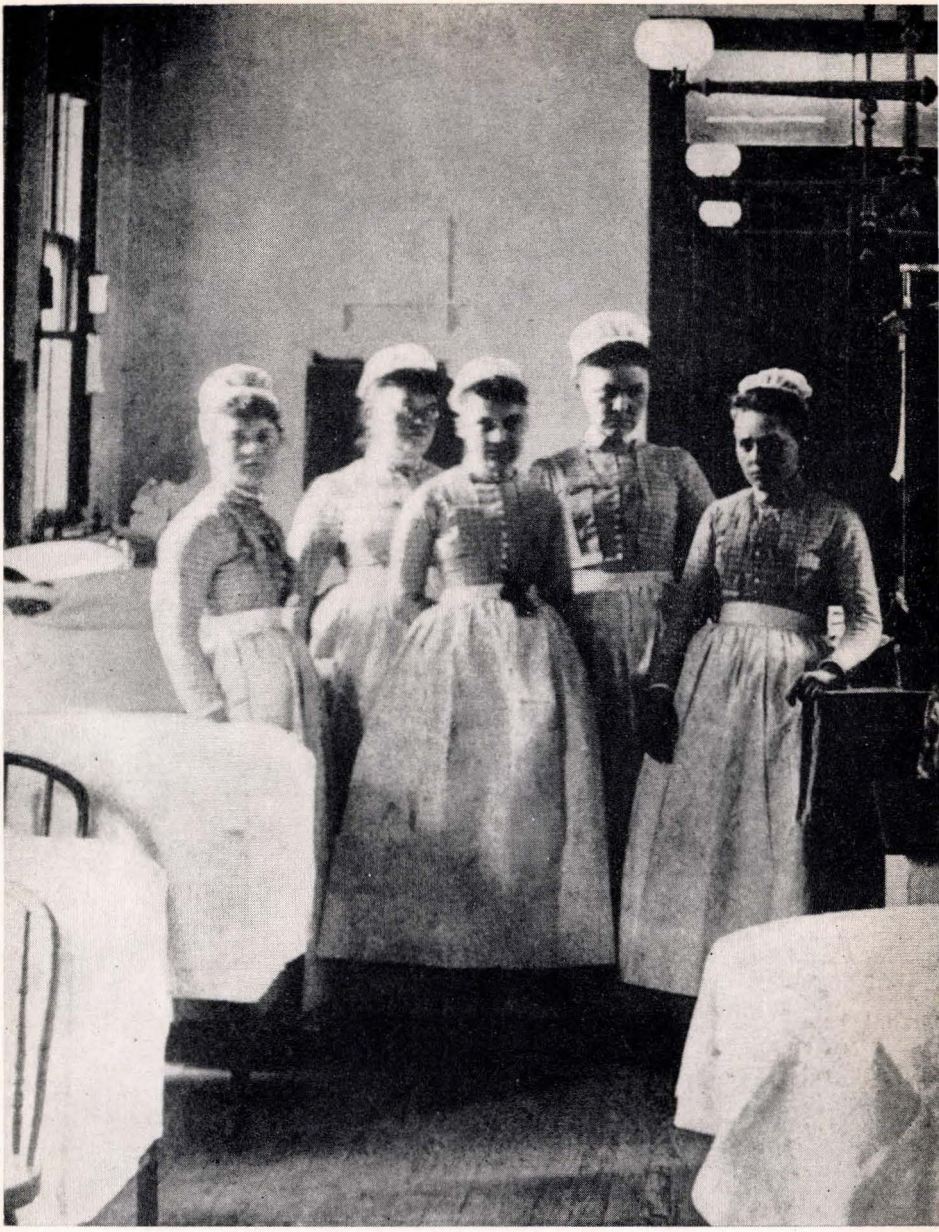




The Pediatrics Service on Lexington Avenue

Ward Rounds on Lexington Avenue

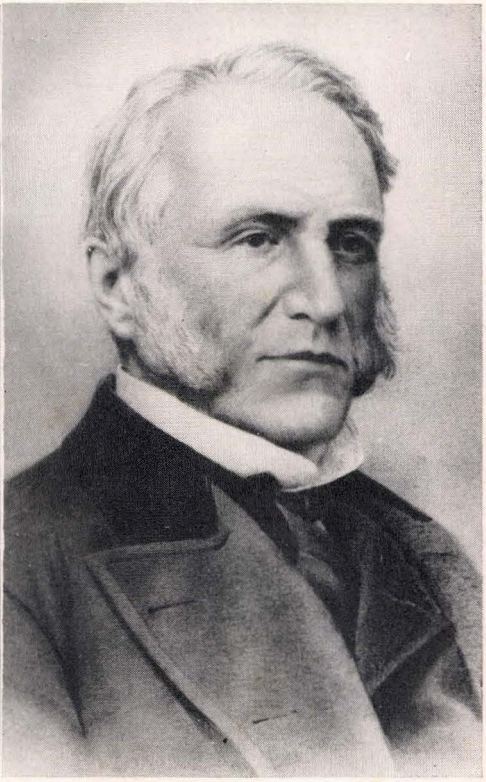




Nurses at the Hospital on Lexington Avenue



Dr. Emil Noeggerath



Dr. Willard Parker

nominal rate of one dollar per year. This was accomplished through the efforts of Emanuel B. Hart, Vice-President of the Hospital, who had been a member of Congress and Surveyor of the Port of New York. The lots which the Finance Committee had bought were resold, and Mount Sinai made preparations to erect a new building which would answer its needs more adequately.

In planning for this first major expansion, the Trustees were able to count on the co-operation of a new organization which has proved consistently helpful throughout the history of the Hospital. The Ladies' Auxiliary Society was organized in 1868 ". . . to assist the Mount Sinai Hospital in the furnishing of such articles of clothing and other wares for the inmates of the hospital as the Board of Directresses may determine and in general to perform such other acts as may tend to the well-being of said hospital."

While membership was open to "any lady . . . on the payment of one year's dues," many of the most energetic members were the wives or relatives of men active in the affairs of the Hospital. Mrs. Benjamin Nathan, the first treasurer of the Society, was the wife of the President of the Hospital Board, who at the first meeting "eloquently addressed the Ladies on the subject of Charity, and the beneficial and humane objects of the Hospital and its auxiliary Society." The first President was Mrs. Henry Leo.

For many years the Ladies' Auxiliary Society was the chief helpmate of the Hospital, furnishing all the linens and beddings used in the wards, providing flowers, decorations and hostesses at social functions, assisting in fairs and bazaars. On one occasion the three stands sponsored by the Society at a Fair netted $11,201.52.

An incredible amount of cutting and sewing was accomplished at the weekly meetings. As the needs of the hospital grew, however, it became necessary to employ outside help, "thereby assisting many poor women who take this way of supporting themselves." The thousands of dozens of towels, the sheets and pillow cases, blankets and garments contributed by the Society in later years represented an increase far beyond the expectations of the ladies who elected their first Officers and Board of Directresses in the committee room of the Synagogue B'nai Jeshurun on March 15, 1868.

In 1871, the last year Mount Sinai remained in the Twenty-eighth Street building, a public misfortune occurred in which the Hospital again took part. In 1870 the Orangemen of New York had held a

parade to commemorate the Battle of Boyne. The music they played, especially *Boyne Water*, angered the Irish and a battle ensued. The following year, when the Orangemen applied for a permit to parade on Boyne Day, the permit was refused by the Superintendent of Police on the ground that such a parade might again provoke a riot. This was apparently done with the sanction of Mayor A. Oakey Hall. Public opinion was aroused, and a meeting was called to protest the refusal. Governor Hoffman was called upon and the permit finally granted. Meanwhile, most of the Orange lodges, under the impression that they were not going to be allowed to parade, had left New York to celebrate out of the city limits. Therefore, when the permit was granted at the last moment, there were only about one hundred Orangemen ready to parade. Almost completely surrounded by police guards, the parade started. When it had proceeded as far as Eighth Avenue between Twenty-fourth and Twenty-fifth Streets, a shot was fired from one of the tenements. Some members of the Seventh Regiment lost their heads and, without orders, fired into the holiday crowds that lined the sidewalks. A riot immediately ensued. Fifty-four people were killed and wounded. Mount Sinai and Bellevue Hospitals gathered up the dead and injured. The case book of the Hospital for 1871 records twenty-five victims "injured at the riot in Eighth Avenue." The halls and corridors of the already overflowing Hospital were lined with those unfortunates who were cared for on hastily improvised beds.

In the last year spent in the Twenty-eighth Street building the Hospital, which became increasingly vital to the community, treated 658 in-patients and 981 out-door patients. Of these 1,639 men, women and children, only sixteen contributed anything to their expense. Among these patients were some who came from "countries" which have since passed into history: 10 from Alsatia, 32 from Baden, 39 from Bavaria, 37 from Bohemia, 11 from Hessen, 4 from Mecklenburg, 1 from Moldavia, 8 from Wurtemberg. One hundred and fifty-two were "pedlars," 18 "segarmakers," 1 a "saddler" and 3 cantors.

During this last year on Twenty-eighth Street, 276 operations were performed on these patients, "33 of which were capital operations." Thirteen thousand prescriptions were filled by the Hospital's apothecary at a total cost of $705.32 or an average of 5⅓ cents per prescription. Among the donations received by the Hospital that year were listed a "Barrel of apples and oranges," "100 Charlotte Russe," a

"Funeral pall," "2 pair India-rubber stockings," "A bouquet of flowers to every patient," a "Pair of candlesticks" and "Lint."

The expenditures for the Hospital that last year on Twenty-eighth Street were nine times those at the end of the first year of operations, totaling $43,616.39. By its one hundredth anniversary these expenditures were to increase over another hundredfold.

5

Mount Sinai Moves: The New Hospital

ON AN AFTERNOON IN MAY OF 1870, THE MAYOR OF NEW YORK AND the Directors of the Mount Sinai Hospital mounted the steps of a wooden platform erected above the dirt roadway at Lexington Avenue and Sixty-sixth Street. To the strains of Meyerbeer's *Marche aux Flambeaux*, they took their places for the ceremony of laying the cornerstone of the Hospital's new building.

In the presence of an enthusiastic gathering which included many prominent clergymen, citizens and quite a number of ladies, Mayor A. Oakey Hall set the stone in place and applied the mortar with an ivory-handled silver trowel. Speeches were delivered by Benjamin Nathan, the Hospital's President, and Emanuel B. Hart, its Vice-President, who placed in the cornerstone various newspapers of the day, several hospital reports and some currency. Rev. J. J. Lyons, an old friend of Mount Sinai, offered a prayer, a service he had also performed when the cornerstone of the first Hospital building was laid in 1853. Eben's Band, a popular band of the day, played more music while the crowd dispersed to various carriages and drove off down the dusty road that was Lexington Avenue.

It was fifteen years since the modest four-story building on Twenty-eighth Street, Mount Sinai's first home, had opened its doors. During those years the Hospital had taken a position in the front rank of the city's philanthropies as a non-sectarian institution with a prominent

medical staff. Its activities had so increased that the new building which the Directors and Staff had planned was almost double the bed capacity of the Twenty-eighth Street building.

The drive for funds to erect the new building was initiated under the guidance of Benjamin Nathan, long a generous figure in New York philanthropy. President of the Hospital since 1856, Mr. Nathan had made a gift of ten thousand dollars to the institution in 1863, as had Joseph Fatman, also a member of the Board of Directors. The twenty-thousand-dollar donation was given with the understanding that it should form the basis for a permanent endowment fund and that the names of the donors should not be announced until after their death. The generosity of Benjamin Nathan was known to his Board, however, and his leadership in the drive to erect the Lexington Avenue building was an inspiration to his fellow members. A few months before the laying of the cornerstone the Board was able to announce that sixty-five thousand dollars had been collected in subscriptions. In the midst of this fund-raising activity the Hospital was shocked by the sudden death of its President who was mysteriously murdered during a thunderstorm in the summer of 1870.

The drive to erect the new building continued under the guidance of Emanuel B. Hart who succeeded Benjamin Nathan. On November 30, 1870, the Hebrew Orphan Asylum and Mount Sinai held "The Great Hebrew Charity Fair." The bazaars and booths remained open for three weeks at the Twenty-second Regiment Armory on Fourteenth Street. Thousands of visitors came, Jew and Gentile alike, and from this highly successful Fair, Mount Sinai received approximately $101,675 to swell its fund.

It was at the Fair that Lazarus Morgenthau, a member of the Hospital Society, presented to the Directors a large leather-bound volume known as *The Golden Book of Life* in which were inscribed the names of those visitors and friends who contributed to the erection of the Lexington Avenue building. Intact to this day, with its intricate design minutely wrought in pen-and-ink on the title page, the volume is a reminder of an earlier period which admired ornate scrollwork and elaborate decoration. Through the Golden Book of Life the Hospital collected $3,303.50.

By January of 1872, through the sale of the old Hospital and the receipt of various legacies, the Board announced that the building fund had been considerably increased. There remained, nevertheless,

a deficit of sixty-five thousand dollars before the total cost of three hundred and thirty-five thousand dollars could be attained. Fund raising, therefore, had to be continued after removal to the Hospital's Lexington Avenue home.

The dedication of the completed building, which extended from Sixty-sixth to Sixty-seventh Street on the east side of Lexington Avenue, was held on May 29, 1872, in the garden at the rear. The Board had seen to it that there were ". . . a good band of music in attendance and a choir of voices." It had directed that "the yard be planked and an awning and seats erected and a platform arranged for the speakers and invited guests." The opening prayer was offered by Rev. S. M. Isaacs, one of the founders of the Hospital and a member of its Board of Directors until 1857, who had continued to serve Mount Sinai as one of the committee of ministers regularly visiting the patients. The inaugural address was made by the President, Emanuel B. Hart; Governor John T. Hoffman spoke next.

The new home of the Hospital was typical of public buildings of that period. Built of the "best Philadelphia brick" and trimmed with marble, it stood three stories high exclusive of the basement and attic. The center portion was an administrative section which came to be known as the Middle House. This was flanked on either side by passageways one story high which led to the wings. These extended farther back toward Third Avenue. Behind this central portion was a garden for the use of convalescents, and several small buildings containing machinery and apparatus.

The wings of the Hospital consisted of wards, the south for male patients and the north for female patients. The ground floor of the Middle House contained a reception ward which because of its size later came to be known as the "accident closet," a meeting room for the Board of Directors, and living quarters for the House Physician and Surgeon. In later years this became the House Staff living room and a meeting place for the Attending Staff. On the second floor were accommodations for private patients and, years later, for the House Staff. On the third floor were the operating rooms and a synagogue. Elevators, dumbwaiters and steam heat were features especially emphasized by the press. The corridor floors were of marble, and heavy decoration, the style of the day, prevailed throughout. Particular mention was made in the press of ". . . columns, pilasters, pedestals and urns for containing flowers." The architect was Griffeth

Thomas. The *Daily Times,* in describing the layout, made much of the spread between the wings: "The great feature of this building, which will certainly be one of the handsomest and most imposing in the city, is the distance—125 feet—between the pavilions. The greatest width yet given has not exceeded 110 feet. This is a most important point in establishments of this class, where light and ventilation are essential elements."

With its red brick walls generously trimmed with white marble and its blue window shades, the Mount Sinai Hospital on Lexington Avenue was one of the early landmarks in a comparatively uncrowded neighborhood. In 1872 the district between Sixtieth and Eightieth Streets was about as far "uptown" as the original Twenty-eighth Street building had been in 1855. Downtown residents frequently held picnics on a seventy-acre farm bordering East 68th Street. First and York Avenues petered out into a salt marsh. High tides occasionally flooded the area between 92nd and 108th Streets, as far west as Third Avenue and sometimes, in spots, up to Fifth Avenue.

The removal of Mount Sinai to its Lexington Avenue site was an early part of the trend of public buildings and charitable institutions to establish themselves in uptown New York. Farther downtown the Orphan Home and Asylum of the Protestant Episcopal Church had erected a building at Lexington Avenue and Forty-ninth Street. The Woman's Hospital founded by James Marion Sims, extended from Forty-ninth to Fiftieth Street. Nearby at Fifty-first Street and Lexington Avenue, stood the Nursery and Child's Hospital. The Presbyterian Hospital, founded four years before, had built farther uptown, from Seventieth to Seventy-first Street and from Madison to Fourth (Park) Avenue. The Presbyterian Home for Aged Women was at Seventy-third Street east of Madison Avenue, and the German (Lenox Hill) Hospital at its present site, Park Avenue between Seventy-sixth and Seventy-seventh Streets. One block east of the German Hospital, on Third Avenue, was the Hebrew Orphan Asylum which had benefited jointly with Mount Sinai at the Fair two years before. Lexington Avenue and the side streets were all unpaved and in bad weather presented a sea of mud to doctors who drove hurriedly up in their buggies or carriages.

In 1871 the elevated railroad that ran up Ninth Avenue to Thirtieth Street failed, and from then until 1875 horse-cars and carriages were the only means of transportation in the city. To get from one end of

the constantly growing town to the other was a perplexing problem. In 1874, before the completion of the Brooklyn Bridge, a trip from Brooklyn to the Hospital involved in succession, a horse-car, ferry to Manhattan, walking to Chatham Square and a Third Avenue horse-car north. Other forms of communication were no better.

Not long after Mount Sinai moved to its Lexington Avenue home, further signs of the city's steady growth appeared. In 1873, Hunter College, then known as the Normal College, erected its building at its present site on Sixty-eighth Street and Park Avenue, thus becoming a close neighbor of Mount Sinai. In the same year the New York Foundling Hospital moved to its present site on Sixty-eighth Street between Lexington and Third Avenues. Lexington Avenue was paved in 1875. Three years later the squatters' shanties on the west side of it disappeared, to be replaced by the Seventh Regiment Armory which moved uptown from Third Avenue and Sixth Street. The shrilling bugles, tramping feet and thumping drums constantly presented problems to the Hospital.

Four years after Mount Sinai moved to Lexington Avenue, Alexander Graham Bell invented the telephone. It was demonstrated at the Centennial Exposition in Philadelphia in 1876, but was considered a mere novelty. Slowly, however, its usefulness became apparent and a few instruments were installed. The year following the exposition, it was proudly noted that there were two hundred telephones in use all over the United States. By 1882 it was possible to call Mount Sinai on its newly installed telephone by asking for "Thirty-ninth Street, 257."

By 1875 steam-motive power was being used to drive the city's transportation. In December of that year, elevated "railroads" were begun on Ninth, Sixth, Third and Second Avenues. The following year the New York Company brought its lines up as far as Fifty-ninth Street and proudly announced that it was running "forty through trains each day." In 1878 the Sixth Avenue line ran from Rector Street to Central Park. In the same year the Third Avenue line reached Sixty-sixth Street and erected a station on Third Avenue behind the Hospital. In 1880 the Second Avenue line reached Sixty-seventh Street, and the same year two roads extended to Harlem.

Horse-railroad companies and property owners brought suits and laid injunctions at every step. Charters were declared unconstitutional, and cases carried from court to court. When the battle was at

last won, the helpless and hopeless community cried out in agony that the noise would kill business, the unsightly cars destroy the beauty of the city and the moving trains in the air frighten horses and endanger human life.

Horses were not the only ones frightened. Despite the availability of electricity, the elevated trains were run by soft-coal locomotives. Passers-by on the streets were frequently showered with hot ashes and soot and it was not infrequent to see the faces of lady passengers stenciled with the patterns of their veils because of the smoke and cinders. The story is told that the reason for the lag in utilizing electric power for the elevated lines was that Jay Gould, who participated in a trial run under electric power, was so frightened when a fuse blew out that he refused to support the elevated lines if they were to use electric power.

Scientific medicine was developing as rapidly as everyday technologies. The Hospital Staff, fully conscious of the need to integrate these advances into patient care, and with the prospect of moving into a larger building and caring for more patients, determined to consider ways of better organizing its work. The Staff met, in January, 1872, at the home of Willard Parker, Consulting Surgeon to the Hospital.

The minutes of that meeting record that Dr. Parker was chosen Chairman and Dr. Percy was chosen Secretary for the ensuing year. Samuel Percy, an Attending Physician to the Hospital, was born in England. He had received his medical degree at the College of Physicians and Surgeons in New York, and had been one of the founders of the New York Academy of Medicine in 1847. Also present at that meeting was the other Consulting Surgeon, Thomas Markoe. Like Willard Parker, Markoe had served on the Staff since the Hospital's first year of service. There were three Attending Surgeons, Ernst Krackowitzer, Benjamin Raphael, and Herman Guleke. Krackowitzer was a tall, wiry man, an indefatigable worker, open and straightforward. Raphael was in that year Mount Sinai's delegate with Abraham Jacobi to the convention of the American Medical Association in Philadelphia. Guleke was a graduate of Dorpat.

There were four Attending Physicians on the Staff: Abraham Jacobi, already a recognized leader in the field of pediatrics; Ernest Schilling, who did not live to see the Hospital move into its new quarters; Samuel Percy and Charles A. Budd, who had persuaded Dr. Jacobi to join him on the faculty of the New York Medical Col-

lege, where in 1862 the latter established the clinic which initiated bedside teaching in pediatrics.

At this meeting it was resolved "That the Board of Directors be notified that the Medical Staff of the Mount Sinai Hospital have organized for the consideration of all matters appertaining to the Medical Management of the Hospital." The term had been loosely used before but this resolution marked the actual organization of the Medical Board.

At the first Medical Board meeting a plan was discussed which was to develop into the creation of the House Staff. For twelve of the years the Hospital had spent on Twenty-eighth Street, Dr. Seligman Teller had faithfully served as House Physician and Surgeon, thus caring for both branches of the service at the same time. When the removal of the Hospital to Sixty-sixth Street was announced, Dr. Teller tendered his resignation because his practice—which he had apparently carried on while he held his position at the Hospital, an undesirable situation in modern hospital administration—was located in the lower part of the city. According to the minutes of that meeting, "It was thought by all that at the opening of the new Hospital at least two Assistant Physicians and Surgeons would be needed and that gentlemen well qualified to act as Assistants could be obtained, in fact would apply for the position."

It was further decided that ". . . an examining board of Drs. Krackowitzer, Jacobi and Percy be appointed for the year 1872 which board will receive applications for vacancies and examine candidates for the position of House Physician." The Secretary recorded that ". . . he would . . . take the proper steps to put proper notices on the blackboards of all the Medical Colleges in the city for application."

But for the first five years of the Hospital's occupancy of its new building, considerable difficulty was encountered in maintaining a staff of two House Physicians and Surgeons—a fact which was partly due to the failure of many applicants to pass the examinations. It was during this period that one inventive young man succeeded in dodging the examinations for three months, meanwhile insisting that he was a graduate of the University of Paris, but that his diploma had been burned in the Chicago Fire. At the end of three months his diploma was proved to be as ingenious, and fictitious, as had been his excuses for not taking examinations.

In the first year the new plan was undertaken, one of the applicants was a woman—Ann A. Angell. She was accompanied by Eliza Phelps, who took an examination for the position of Apothecary. Both of them, graduates of the Woman's Medical College of the New York Infirmary, stood highest in their respective examinations. In those days a woman in medicine was a rarity and oddity. The Medical Board recommended the two applicants to the Board of Trustees, but were told that they "did not receive the nomination of women very favorably." So strongly did the Medical Board feel, however, that it sent Dr. Percy to a Trustees' meeting to urge Drs. Angell's and Phelps' appointments. Accordingly it was agreed that Dr. Phelps should be appointed Apothecary, but that Dr. Angell should be appointed Second Assistant instead of First for duty in the female wards only except in case of emergency. That emergency arose, and in 1873 she acted as Temporary House Physician and Surgeon. She was aided by Dr. Percy, who called daily at the Hospital to help her in her tasks, for there was no other Assistant at the time. The Board of Directors later accepted Dr. Angell as a doctor, for in that same year they sent her $300 "as an acknowledgment of her valuable services during her stay in the institution." In accepting these women doctors, Mount Sinai flouted the mores of the times. There had been few women graduates of American medical colleges. In fact the Woman's Medical College had just graduated its first class in 1870. Thus, Mount Sinai's appointment of Drs. Angell and Phelps helped pioneer woman's place in American medicine.

Ever since the days of the Jews' Hospital, men and women who were not sufficiently ill to be hospitalized had come to be treated by the House Physician and Surgeon. The month before the Hospital had moved uptown, at a meeting of the Medical Board, Dr. Jacobi introduced a resolution to "establish an out-door department to the Hospital." The suggestion was approved by the Trustees who announced in the 1872 Annual Report that besides anticipating ". . . opening an Infirmary for the treatment of outdoor patients," they intended ". . . greatly to extend the sphere of its [the Hospital's] usefulness by the establishment of a clinique, contributing thereby to the advancement of medical science and aiding the student in the study of his profession."

With a growing number of patients and a larger institution, it was necessary to set up a more satisfactory arrangement. Although a Dis-

pensary was mentioned as an accomplished fact in 1874, it was not until 1875 that the plan of three years earlier was fully realized and a separate Dispensary Staff was appointed. In that year, four divisions of the Dispensary or "Out-Door" (today's Out-Patient) Department were established: Internal (Medical), Surgical, Gynecological and Children's. All these divisions occupied two small rooms in the basement of the building.

The Dispensary, though small in 1875, soon was recognized as a major educational resource, and the division of Dispensary work served as an early sign of the Hospital's participation in the trend toward specialization.

The Dispensary Staff consisted of eight physicians who elected a President and Secretary, and held regular meetings. At the head of the Gynecological Department was Paul Furtunatus Mundé, editor of the *American Journal of Obstetrics*. He was a regal figure with classic head, long sweeping mustache, massive shoulders and a military bearing. Gentle with his patients, popular with his colleagues, a born raconteur, he was a colorful personality. He had come to the United States at the age of three with his father who had fled from Germany after the Revolution of 1848. He was brought up in Massachusetts, he entered Yale Medical School, but left at the age of seventeen to join the Union Army at the outbreak of the Civil War. Later he entered Harvard Medical School, graduating in 1866, and then returned to Germany where he spent seven years. As a volunteer in the Bavarian Army, Dr. Mundé served as assistant surgeon during the Austro-Prussian War and later as battalion surgeon in the Franco-Prussian War. Afterwards he studied gynecology and obstetrics in Heidelberg, Berlin and Vienna. In his capacity as first head of the Mount Sinai Dispensary's Gynecological Department, he attracted to it many patients. The Dispensary's Gynecological Department was the only gynecology service Mount Sinai had for a number of years. The fear of surgery, characteristic of the day, extended to gynecology, and operations, particularly major ones, on the female sex organs were rare. The specialty was so limited a field that dispensary care was considered ample.

The Children's Department was placed under the leadership of Mary Putnam Jacobi, another sign of the Hospital's early hospitality to women physicians. Mary Jacobi (then Mary Putnam) was the first woman to graduate from the New York College of Pharmacy, and the

sixth woman to graduate from any American medical college. In 1864, she had gone to the Female Medical College in Pennsylvania. So impressed was the College with her ability that she was granted a degree after "a brief course" of only one year. But apparently Mary Putnam was less impressed than her alma mater and, after some experience gained at the New England Hospital, she sought admission to the awe-inspiring École de Médecine in Paris, the first woman to do so. So apprehensive were the authorities at l'École de Médecine of the anticipated hostility of fellow students and professors that they advised her to wear men's clothing so as not to attract attention to herself! She was wise enough to refuse.

Dr. Putnam returned to the United States in 1871, an accredited graduate of l'École, and immediately became active in her profession. Through the influence of Abraham Jacobi, whom she met on her return to this country, she was accepted as a member of the New York Academy of Medicine. In 1875 she and Abraham Jacobi were married.

Three years after the Children's Department was organized in the Dispensary, it was found to be inadequate to care for the number of children sent to the Hospital. Accordingly, a formal pediatric service was established within the Hospital in 1878, the first in a New York hospital and one of the first in the United States.

During its first year of service, the Dispensary held 4,592 consultations and filled 13,004 prescriptions. Within two years it had expanded to four rooms, with one each assigned to the departments then in existence. The Annual Report of 1877 gratefully acknowledges the importance of its work and the commendations it had earned not only for itself, but for the Hospital as a whole from the community.

By 1885 numerous alterations had been made in the Lexington Avenue buildings and new facilities added. Its bed capacity had been increased to 200.

(It was 1880 before lamps were erected in front of the Hospital. These were, of course, gas lamps. Although Edison invented the incandescent lamp in 1878, the novelty of the electric light as late as 1889 is evident in the deliberations of the Mount Sinai Board on the specifications for the new Dispensary building. The recommendation that it be wired . . . "for the eventual use of electricity" was defeated. In fact electric lights were never installed in the Lexington Avenue buildings which the Hospital occupied until 1904.)

Continually increasing demands for service in the Hospital and

Dispensary crowded each new addition as quickly as it was built. When the Hospital moved to its Lexington Avenue site, the city's population was 940,000. Twenty years later it had almost doubled.

A consistent problem unsolved by the building program was the need for long-term care of chronic cases. This problem had been recognized by the Board of Trustees as early as 1876, but there were so many applications for such service that they feared were the Hospital "to receive them indiscriminately, the usefulness of the institution would be greatly impaired."

Because there were no Jewish institutions to receive such patients, and many Jewish patients were disinclined to go to the city hospitals, chronic invalids remained in the Hospital as practically permanent charges—one for at least six and a half years. So disturbed were the Trustees at this situation and at the inability of the Hospital to cope with it, that in 1880 they adopted a resolution to look into the founding of "a hospital for the gratuitous treatment of chronic diseases" in connection with Mount Sinai. In the following year a proposal to add an additional wing for seventy-five such patients was considered. With the plan obviously impracticable for the Hospital itself because of space limitations, the Board in 1883 resolved to co-operate with the United Hebrew Charities in the organization of such an institution, with the result that the Montefiore Home for Chronic Invalids was opened in 1884.

Ten years after the Dispensary was established it served as many as 200 patients a day. In its tenth year alone it held 40,000 consultations and compounded 47,000 prescriptions. New departments had been added, notably the Eye, Ear, and Throat Department in 1880. Dr. Carl Koller, who with Freud had worked on cocaine in connection with experiments on hypnotism and had established its use as a local anesthetic, joined the Department in 1888.

By 1890 the Dispensary was moved into a newly erected fireproof six-story building on the north side of Sixty-seventh Street between Lexington and Third Avenues. It was connected with the Hospital by a tunnel which ran under Sixty-seventh Street. The Internal Medicine Department was reorganized into two divisions, one for men, the other for women. The Eye, Ear and Throat Department was split, with one department for eye and the other for ear, nose and throat. Two new departments, neurology, and dermatology and venereal diseases, were added. With Surgery, Gynecology and Children's, the Dispensary

now had nine divisions. Eleven new appointments were made to its staff which now consisted of twenty-six physicians. Within a year after moving into its new quarters, the work of the Dispensary increased almost 100 percent.

The four upper floors of the Dispensary were given over to the Nurses Training School, which was organized in 1881. The juxtaposition of the School and the Dispensary helped make possible the development of the District Nursing Service, also described as the District (Sanitary) Corps, Mount Sinai's forerunner of the modern Home Care program which has been in continuous operation for seventy years. This Service, organized by the "Committee on Outdoor Relief," provided free medical care and nursing for applicants to the Dispensary whose illness could be taken care of at home pending admission to the Hospital, if that was still deemed necessary.

The plan had first been discussed by the Board of Trustees in 1882, and district nursing had long been an ambition of the Training School. In the first four months the three physicians of the District Corps cared for forty-two patients and made one hundred and fifty visits. The Corps was then enlarged to five physicians, and in the first year of its service presented this record: 412 cases referred by the Admitting Physician to the District Corps; 184 cases cured; 89 cases improved; 139 cases subsequently admitted to the Hospital. As a result medical care was given to 273 patients who otherwise could not have been treated because the Hospital wards were full.

The activities of the Dispensary in some measure relieved the overcrowding of the Hospital. The Directors reported in 1889 that the Admitting Physician had found it possible to refer to the Dispensary 694 cases not sufficiently serious to be hospitalized. But this in turn demanded further expansion—which could take place only when the Hospital moved to its present site.

At that time, the Dispensary attended as many as 536 patients and filled as many as 600 prescriptions a day, 98 percent of them gratuitously. While these figures do not compare with the current patient load, they are an impressive index of the Dispensary's growth and community service.

More impressive, however, is the impact of the Dispensary on the development of the Hospital as a whole. Beginning at the turn of the twentieth century, the Dispensary and the laboratory, then in its infancy, gave the real impetus to the clinical research that was to

distinguish Mount Sinai in the years to come. But to the people of New York the popularity of the Dispensary, described in one of the last Annual Reports issued on Lexington Avenue, "is mainly due to the well-merited reputation of its excellent staff of physicians and surgeons, and its success, to their energy and zeal; with praiseworthy devotion, they give their valuable time and skill to the gratuitous relief of a large number of sufferers of all ages and nationalities applying from all parts of the city, who might otherwise be deprived of medical advice and treatment."

9

The Nurses

NURSING IN THE EARLY DAYS OF MOUNT SINAI WAS NEITHER BETTER nor worse than in other hospitals of the period. Trained nurses were unknown. Women were hired without any previous schooling in the care of the sick. They were usually uneducated and frequently slovenly. The men employed to attend male patients—for women did not take care of the men—had no better training.

Although there were some religious sisterhoods which trained their members in the care of the sick poor, there were in the United States no nurses' training schools as we know them today. The year before the opening of the Hospital, when the Crimean War broke out in Europe, Florence Nightingale was sent to Scutari to superintend the hospital barracks there. So successful were the reforms she effected, in the face of opposition and petty caviling, that after the war a Florence Nightingale Fund of fifty thousand pounds was raised to start a training school at St. Thomas' Hospital in London.

Florence Nightingale had received her training at a school for deaconesses founded by a German pastor and his wife. In 1860, five years after the Jews' Hospital in New York had opened its doors, the training school at St. Thomas' Hospital in London started its first course with fifteen probationers. But it took thirteen years before the first training school, at Bellevue Hospital in 1873, was founded in the United States. Later the same year, the New Haven Hospital and the Massachusetts General Hospital also established schools.

The nineteen graduates of that first Bellevue class soon proved to the medical profession the tremendous advantage of scientifically

educated nurses over the untrained, frequently careless and inefficient women who had previously cared for the sick. Training school graduates came to be in great demand, for every hospital was faced with the problem of an inadequate supply of capable, trustworthy nurses. The 1878 report of the Mount Sinai House Physician speaks of ". . . the difficulty of obtaining good nurses," and in 1880 a similar report points out: "On account of the introduction of trained nurses into some of the wards, the nursing has been conducted much better than formerly, and the Directors have reason to congratulate themselves upon the improvements made in this department." These nurses were undoubtedly graduates of the Bellevue School.

Five years after the founding of the school at Bellevue, in 1878, a group of the Mount Sinai Ladies' Auxiliary, in the face of medical opposition, began to agitate for a nursing school connected with the Hospital. Led by Mrs. Alma de Leon Hendricks, a Director of the Auxiliary, plans were laid for such a school at Mount Sinai, but with her death the plans were shelved, temporarily.

Consciousness of the need for trained nurses and the new trend in nursing had, however, generally penetrated the Hospital. In 1880 the Medical Board sent a resolution to the Board of Directors ". . . regarding the establishment of a training school for nurses in connection with this Hospital." As a result, a committee was formed of several Directors and members of the Ladies' Auxiliary to consider the advisability of the plan. In December, 1880, the committee reported to the Hospital's Board as follows:

> It has been practically demonstrated in all the hospitals of Europe and some in this country that regularly trained, skilled nurses not only materially relieve pain and disease and are of vital assistance to the physician, but also greatly reduce the death rate therein by keeping the resident doctors fully posted on all that transpires during their absence and noting the progress of diseases and reporting same to them. It has been a matter of fact in Mount Sinai Hospital that great difficulty is encountered in obtaining thoroughly competent nurses to take charge of the wards. More particularly is this in the female department where the discharges have been the most frequent and the available supply not equal to the demand. Having this in mind your committee feel that a necessity exists for regular trained nurses, and such can only be obtained by the establishment of a school for that purpose, connected with the Hospital, but in its workings free and independent.
>
> The vital objection, and one which your committee feel is a great

> lack to the immediate establishment of such a school, is the difficulty of obtaining nurses to be trained (Probation nurses) from among our co-religionists. . . . If our Directors feel that our female co-religionists would take part by offering their services and accepting the positions assigned them, we heartily recommend the project, and to that end would suggest that the aid of our ministers be called in to speak thereof from their respective pulpits and to further the project in such other ways as to them seems fit and proper.

A commentary on salaries and other expenses of the time is found in the committee's budgetary recommendations for the first year of the proposed school:

Salary of Superintendent	$ 500.
" " two head nurses	600.
" " six nurses to be trained	650.
House rent	900.
Three servants	540.
Provisions and other house expenses	2,000.
Furniture	1,000.
Total expenditures	$6,190.

Finally, the committee recommended that the rules governing the school, in the beginning at least, be patterned after Bellevue School, which was considered the model for the country.

The report of the Training School Committee on February 20, 1881, at a special meeting of the Board of Directors of the Hospital recommended therefore:

> First—that the wards of the Mount Sinai Hospital be opened to said school for the purpose mentioned in their petition, with the reservation that for the first year, only the 3 female wards and the children's ward shall be given to their privileges and that said school shall apply to this Board whenever they desire to extend them over other wards.
>
> Second—that a standing committee of 5 from this Board of which the President shall be one, to be styled the "Committee on Training School" and a like committee of 3 from the Medical Board, similarly constituted, be appointed annually by the presidents of the respective Boards, who shall form an equal part of the Board of Management of said school and represent the interest of the hospital therein.
>
> Third—that for the first six months night nurses be engaged by the Principal of the Training School, and shall take their orders from her and be subject to her control, but to be paid by the Hospital and boarded and lodged therein.

Before the month was out the Mount Sinai Training School for Nurses was incorporated. An institution, separate from, but co-operating with the Hospital, it had its own Board of Directors—all women until 1895. Mrs. Florian H. Florance was the first president.

Modeled after the Bellevue School and covering two years of training, the School opened in March, 1881, with eight probationers and four Bellevue graduates. Miss Kate Rich, a Bellevue graduate herself, who instructed in practical bedside nursing, was the first Superintendent. As recommended, practical instruction was given only in the female and children's wards of Mount Sinai. Theoretical instruction, supervised by the Committee on Instruction—consisting of two members of the School's Board and three members of the Hospital's Medical Board—was given by distinguished members of the staff.

Among the lectures were six on Gynecology and Obstetrics by Dr. Paul F. Mundé; six on Bandaging and General Surgical Dressings by Dr. J. A. Wyeth; one on Diseases of the Eye and Ear by Dr. Emil Gruening; seven on Surgical Emergencies by Dr. Daniel Stimson; four on Surgical Emergencies by Dr. Arpad Gerster; two on Diseases of the Throat and Nose by Dr. Richard C. Brandeis; seven on Medical Emergencies by Dr. H. N. Heineman. A measure particularly progressive for those days provided that "each class also receive anatomical demonstrations on the cadaver." Only Dr. Rosa Welt, who lectured on Anatomy and Physiology, was paid a fixed yearly salary beginning in the second year of her service.

In addition to this curriculum, student nurses were given a chance to obtain practical experience in obstetrical cases and the care of infants. This elective was available by arrangement with the Ladies Lying-In-Relief Society, the Nursery and Child's Hospital and the New York Infant Asylum. Study lasted an average period of about six weeks for each student.

Miss Rich's role as Superintendent was a dual one which, according to the 1883 biennial report of the school, she performed with courage, enthusiasm and efficiency. As Superintendent of the School she was responsible not only for instruction in practical nursing, the selection and dismissal of probationers, the conduct and work of the nurses on the wards, but also for such management problems in the Hospital as the preparation of food for the sick, and the welfare of the patients. One catches a glimpse of the devotion she gave to her task in her simple statement that since so many of the patients were

German, she studied the German language so that "she might at least bid them good morning."

Her course of instruction included:

1. The dressing of blisters, burns, sores and wounds; the application of fomentations, poultices, cups and leeches.
2. The administration of enemas and use of the catheter.
3. The management of appliances for uterine complaints.
4. The best method of friction to the body and extremities.
5. The management of helpless patients; making beds, moving, changing, giving baths in bed, preventing and dressing bedsores, and managing positions.
6. Bandaging, making bandages and rollers, lining of splints.
7. The preparing, cooking and serving of delicacies for the sick.

On the practical and professional side, Miss Rich outlined the following plans:

> They will also be given instruction in the best practical methods of supplying fresh air, warming and ventilating sickrooms in a proper manner, and will be taught to take care of rooms and wards, in keeping all utensils perfectly clean and disinfected, to make accurate observations and reports to the physician of the state of the secretions, expectoration, pulse, skin, appetite, temperature of the body, intelligence, as delirium or stupor; breathing, sleep, condition of wounds, eruptions, formation of matter, effect of diet, or of stimulants, or of medicines, and to learn the management of convalescents.

The struggle of nurses to attain full professional status began almost with the opening of the School. Many of the duties which are today considered a routine part of a nurse's training were lacking in those early days. It is significant that in summing up the work of the School's first two years, Mrs. Florance was forced to admit that although ". . . those competent to judge have informed us that . . . our nurses have both practical and theoretical facilities for instruction which are not surpassed . . ." still the curriculum lacked ". . . opportunities for observing much acute surgery." Nurses were not expected to be present at operations, and if they did find their way into the operating room, it was on invitation of the House Staff. These invitations became more and more frequent with each passing year.

It was not until the 90's, however, that graduate nurses were to serve officially any function in the operating room, and then not to assist the surgeon as they do today; that was the job of the Junior

House Surgeon. Nurses were present only to help with dressings. Until 1901 there was to be no head operating-room nurse.

Following the example of Bellevue, Mount Sinai, in 1881, opened only the women's and children's wards to student nurses. In the year after the School's opening, the question arose whether it should provide a staff for the male wards which were still cared for by untrained orderlies. This was an extremely daring proposal—one on which the Medical Board hedged but eventually and reluctantly gave in to, specifying that female nurses could enter male wards only "under certain conditions." What these conditions were was never defined.

The Board of Trustees was more blunt. It flatly refused the proposal. Three years later, however, in 1885, it gave ground, and student nurses were permitted to care for male *medical* wards only. It was not until the close of the Victorian Age, in 1897, that the male surgical wards were also made a part of its responsibility, and then only after the suggestion of "training junior doctors in nursing" was found to be impractical.

The newly formed School, contrary to anticipation, had no difficulty in attracting applicants. While the School was "designed to be nonsectarian in the reception of pupils," constant efforts were made "to impress upon eligible Jewesses the advantages offered by the School." The President's first biennial report indicated "that more do not respond is probably attributable to an ill-advised reluctance to relinquish less remunerative vocations, but in which they imagine, through greater freedom, the destiny of woman may be earlier fulfilled." Despite this reluctance thirty applications from Jewish girls were received during the School's first year. Seventeen were accepted in the first class of forty-three. In fact, four of the eight probationers who formed the original nucleus of the student body were Jewish.

The first residence of the School was in a private house at 850 Lexington Avenue, two blocks from the Hospital. Within a year after its opening it was necessary to expand and a second high-stoop brownstone house next door, at 852 Lexington Avenue, was rented.

A composite picture of the first students of 1881 indicates that she ranged between 30 and 35 years of age, bore a letter testifying to her good moral character, and a statement from her physician that she was in sound health. She had successfully passed an examination in reading, penmanship, simple arithmetic and English or German dictation.

After entrance she was wholly under the supervision of the Superintendent of Nurses who determined her fitness for the work during a month's trial or the month of probation. The probationer was boarded and lodged at the expense of the School but received no compensation until she was accepted as a student. At the time of her acceptance she signed an agreement to remain two years, the first year as assistant on the wards of the Mount Sinai Hospital and the second to perform any duty assigned her by the Superintendent in the hospital or on private cases among the rich or poor. For these services she received nine dollars a month in her first year and fifteen dollars a month in her second year. It is significant that "this sum is allowed for the dress, textbooks, and other personal expenses and is no wise intended as wages, it being considered that the education given is a full equivalent for service." The dress prescribed by the institution for the student nurse was of blue and white seersucker, with long sleeves, white apron and a fluted organdy cap, and white linen collar and cuffs with, after 1890, a distinctive kerchief.

The student nurse was on duty from eight in the morning until eight at night, with an hour off for dinner and additional time for exercise or rest. It was not proposed to place her on night duty until she had been in the school three months. She had an afternoon off during the week and a "right" to every alternate Saturday or Sunday. A vacation of two weeks was allowed each year. If she became ill she was cared for gratis by the Hospital Staff.

The curriculum of the School remained relatively unchanged during its first ten years. In addition to work on male medical wards, however, other training resources were gradually opened up. In 1887 obstetrical training was made compulsory. A year later, by agreement between Mount Sinai's Isolation Service and the Willard Parker Hospital, student nurses, the only ones in the city, were able to obtain a course on the care of contagious diseases.

In 1889 the School's continued agitation for increasing professional education and the demand that nurses see at least two autopsies before they were graduated, came to a head. They were no longer content with back-door invitations. Despite the advice of the Medical Board to the Hospital Directors that nurses' clothing might become infected, the request was soon to be granted.

The system of practical instruction inaugurated by Miss Rich insured the progressive development of students to assume increas-

ing professional and administrative responsibility. In her senior year, the student received three months' preparatory training on the ward in which she would become head nurse. As head nurse she remained on the ward another six months, thus gaining nine months of successive and continuous experience prior to graduation.

The development of the Dispensary and the District Nursing Service paved the way for emergence of the modern public-health nurse. In a very real sense, Miss E. Deyo, a nurse assigned by the School in 1886 to the District Nursing Service, was probably *the* first public-health nurse, certainly her prototype. In the 1885-87 biennial report of the School, the District Nursing Service and Miss Deyo's relationship to it are described as follows:

> A doctor who is chosen by a hospital or a dispensary to attend the sick poor of any district of this city makes his or her rounds and sends word to the nurse which this school places at his disposal that such and such cases need nursing and gives his special directions. The nurse goes provided with clothes of all kinds, which are used if found necessary, the prescription advised by the doctor, which is provided by the hospital or dispensary with which he is connected, and any necessary delicacy in the way of food or nutrition of any kind. This is paid out of a private fund given to the school by charitably disposed friends. The nurse then arranges the bed, washes or bathes the unattended patient, gives the medicine, tidies the room, prepares the food, feeds the patient, and leaves to attend the next case, and will return in the evening to any case if found necessary; otherwise these same offices are repeated daily until the patient is pronounced by the attending physician, able to be his or her own nurse. . . . The Mount Sinai Dispensary Committee has decided in conjunction with us to use the district nurse for many patients who are sometimes necessarily exposed to the inclemency of the weather in coming to the dispensary, which consequently enlarges the sphere of outdoor nursing and will more adequately supply a serious want in this great city.

Four years after the School opened it began to face financial difficulties and notified the Hospital Board that it would have to close its doors January 1, 1885.

The Board requested the Training School to continue until May 1, offered to increase the pay for nursing service and to assume financial responsibility for the School until May 1, 1886, in itself the strongest possible endorsement of the value to the Hospital of trained nursing service.

In the intervening months the Board of Trustees of the Hospital

undertook to explore the possibilities of obtaining nursing service from some other source, but were forced to the conclusion that the most economical source was the Training School. In view of these findings the Training School was asked to continue its work with the understanding that its deficit, if any should exist, would be made up by the Hospital Board. This protectorate relationship continued until 1887, in which year generous public contributions made financial assistance by the Hospital unnecessary.

In the meantime a number of changes took place. On January 1, 1889, Miss Alston, a graduate of the class of 1884 and Superintendent since 1887, reported a student body of forty-five, selected over a two-year period from a total probationary group of 107. That these 107 probationers had been accepted from 368 applicants is an indication of the growing interest in nursing among the young women of the day. That the public, too, was becoming more and more aware of the value of trained nursing is shown by the fact that, in the same two year period, 623 requests for nurses had been received by the Registry which had been established by the School in 1887. Of these calls 127 had been supplied from the student body and the rest answered by graduates.

The expansion of the school brought with it a corresponding increase in the annual expenses. The School, to date, had been dependent for support on the annual dues of patrons and members, donations, the services of pupil nurses in private families, and the services of pupil nurses in the Hospital. This latter group supplied the largest source of income, about twice the amount received from dues and donations together.

One of the large items in the School budget was the upkeep of the residences. In an effort to eliminate this source of expense and at the same time to provide better housing the School moved in 1890 into the upper four floors of the new Dispensary building. However, the rental of twenty-six hundred dollars per annum increased these annual expenditures by two hundred dollars and Hospital financial assistance again became necessary. The resultant economic assistance brought with it Hospital Board participation in the administrative activities of the School to the extent that the medical instruction of the nurses was transferred to the Committee on Training School of the Medical Board of the Hospital. This transfer took place with the full consent and approval of the Board of Managers.

Dual administration by the Board of Managers and the Medical Board soon precipitated diversities of opinion which had not been anticipated at the time of transfer of instruction. The final fulcrum of conflict was the question of the responsibilities of the Superintendent of Nurses to the Superintendent of the Hospital. The Board of Trustees of the Hospital maintained that "the superintendent of the hospital, as its executive officer, shall have authority to direct all matters appertaining to the nurses in the hospital other than their medical instruction and medical direction . . . with the exercise of good judgment on his part, he shall, as far as possible, in his discretion, allow orders from him to the nurses to be communicated and carried out by the Superintendent of the Training School." The Board of Managers disagreed.

Final resolution of this and other problems was achieved in 1895 when the Hospital assumed more direct control over the School's life and activities. Accordingly a new Board of Directors of the School was appointed, seven of them from the Hospital's Board and five from the community. In addition a co-operating committee of three medical men was added. The separate incorporation of the School continued.

The Training School adjusted itself to the new regime with a minimum of difficulty under the temporary superintendency of Miss M. Leary, a graduate of the School, who had replaced Miss Alston in 1894. In 1895, Mrs. Marion F. Deans, who had been graduated in that year, was appointed Superintendent of Nurses.

From this time until 1905 many innovations in the curriculum and admissions policy took place. The fifty to sixty hours of class-room instruction over the two-year period were increased to 168 hours over a three-year period. The affiliation with the Willard Parker Hospital for Contagious Diseases was made obligatory for all students. Affiliation for obstetrical instruction was transferred from the New York Infant Asylum to the Sloane Maternity Hospital, because of its greater facilities. Student nurses were sent for private-patient experience to the private facilities in the Middle House. The report of the Medical Board for 1896 states: "This is the type of patient whom most of the nurses would be called upon to serve after leaving the Institution, and their care requires more of that delicate tact and judgment on the part of the nurses than is requisite in the ward, with

its semi-military discipline." In addition, the management of the operating room was added to the nurses' province.

The new admission requirements called for the presentation of a school diploma or certificate. Applicants were considered in view of the organization of the next class and were admitted on a given entrance date. The probationary period was extended to two months. When the probationer was accepted as a pupil nurse she received a monthly allowance of eight dollars for the first year, twelve dollars for the second year, and fifteen dollars for the third. Failure to pass any examination was deemed sufficient cause for dismissal. The rotation of service in the Hospital included training in the male and female medical wards, and the male and female surgical wards, the operating room (for four weeks), the gynecological ward, the wards for patients with diseases of the eye and ear, and the pediatric wards.

By the end of the nineteenth century, as the Hospital was planning to move to its present site, the Mount Sinai Training School for Nurses had evolved from its experimental beginnings to an institution about to take its place among the foremost in its field.

7

The Nineteenth-Century Staff and the Beginning of Specialization

IT WAS NOT UNTIL 1877 THAT TWO DISTINCT SERVICES, SURGICAL AND Medical, were set up with separate wards for each at Mount Sinai. Before that, although the division of surgical and medical cases had, of course, been recognized by the members of the Staff, the only division of patients into wards had been on the basis of sex. Previous failure to separate the services was simply a reflection of the fact that in those days surgery was hardly considered a separate practice. The situation was such in 1874 that:

> . . . without exception, the visiting (attending) surgeons of all New York hospitals were general practitioners first, and surgeons in an accessory way. No one was a surgeon as we understand the term now—hence any one might be a surgeon if he chose to operate and found patients willing to submit.

Surgery was considered that branch of medicine to which doctors turned only in last recourse. Operations for strangulated hernia and on the trachea were the most common procedures. Until the eighties, no doctor could have supported himself by the exclusive practice of surgery; there was not enough of it.

Consultations before even a relatively minor operation were the order of the day. As many as six doctors might consult, each stating his opinion starting with the youngest; the majority opinion pre-

vailed. This fear of surgery is more easily understood when it is realized that the rules of antiseptic procedure were not generally followed. Infection and a resulting high mortality rate—35 percent in the case of amputations—were the companions of operative surgery. Yet Joseph Lister had used carbolic acid as an antiseptic in 1865 and his methods had made considerable headway in Europe in the ensuing decade. But in New York it was not until 1878 that one of the early amputations was performed according to Listerian methods. The operator was Arpad Gerster, in 1880 to be appointed a member of the Attending Staff at Mount Sinai.

Reorganization of the House Staff followed the separation of Medical and Surgical Services.

An Admitting Physician, who lived outside the Hospital, was considered a member of the House Staff. He was to have ". . . morning and afternoon hours at his office and two hours daily at the Hospital for the examination of applicants . . . visit at their homes those patients unable to come in person, have supervision over diet and condition of wards." His salary was set at five hundred dollars a year. There were to be four members of the House Staff, chosen as before by competitive examination. These were the Resident Senior and Junior Physicians, and Resident Senior and Junior Surgeons, all of whom lived in the Hospital. The terms later adopted were House Physician or Surgeon for the Senior, with the term "Resident" also dropped from the Junior's title.

Alfred Meyer, later a Consulting Physician to the Hospital, was the first Junior Physician to serve under this plan. Oral examinations were given at the home of one of the examining doctors. Questions usually covered the symptomatology, pathology and complications of particular diseases, treatment of surgery emergencies and the like. The applicant having the best mark had the choice of services, and until 1886 it was an unheard of event to choose surgery—eloquent testimony of the status in which that branch of hospital service was held. Howard Lilienthal, later Consulting Surgeon, made this unprecedented choice in 1886. He later said that it was received like "the equivalent of a social error." But whatever the effect on the startled examiners, it was a decision he, and the Hospital, never had occasion to regret.

At the end of a six-month period the services interchanged house officers, and at the end of the first year each Junior—now advanced to Senior—returned to his original service. Thus two years comprised the

period of internship. The House Staff plan as developed in 1877 provided for the granting of a diploma to graduates of Mount Sinai, and in 1885 one was presented to Josephine Walter, the first woman in the United States to serve a formal internship.

There were few rules for the House Staff. Their duties were many and varied. They ranged from admitting accident and emergency cases in the absence of the Admitting Physician to helping with the extraction of teeth in the Dispensary. Persuading families to allow post-mortem examination was another task which met with rather inconspicuous success.

Interns wore ordinary street clothes when on duty, as did the members of the Staff who appeared on rounds in the long frock coats of the period. One intern was dismissed because he insisted on wearing his slippers. It was not until 1890 that a member of the House Staff introduced the now familiar white coat, at which one of his fellow interns was heard to mutter, "The next thing you know we'll be marching into the wards with a fife and drum corps."

Following the organization of the two separate services, there developed an increasing interest in new and specialized departments, a trend which was to continue during the Hospital's stay on Lexington Avenue and which mirrored the growing tendency toward specialization. The appointment of Emil Noeggerath as Gynecologist to Mount Sinai in 1877 marked a step in this direction.

Noeggerath was lured from a quiet country practice in a small town on the Rhine by the promise of a position in a university which was to have been organized in St. Louis. He arrived in New York with his family in 1857. Ill, with few resources, and ignorant of the language and customs of the country, he found that the plans for the university had failed to materialize.

In due course, however, he managed to develop an excellent obstetrical and gynecological practice in New York. With Abraham Jacobi he was co-author of the ill-fated work, *Contributions to Midwifery and Diseases of Women*. With Dr. Jacobi, he helped to found the *American Journal of Obstetrics* in 1868. Pioneer work in the study of gonorrhea, however, marks the apex of Dr. Noeggerath's scientific career. Seven years before Albert Neisser announced his discovery of the germ which causes gonorrhea, Emil Noeggerath, in 1872, published his work on *Latent Gonorrhea in Women*. He drew attention to the fact that even after active symptoms of gonorrhea disappear,

the infection remains and is still contagious. He was in agreement with the view that the infection is caused by an organism which secretes itself in the mucous membranes. Probably his most important contribution was his emphasis on the fact that gonorrhea caused sterility in women. The majority of his colleagues were far from sharing his concept of the latency of the infection or of its relation to sterility. Years later, Noeggerath's work was finally acknowledged. In 1882, he was succeeded by Dr. Paul F. Mundé.

The early Hospital's attitude toward the venereal diseases reflected the moralistic views that were to prevail almost to our time. In March, 1860, the Board of Directors "Resolved that single women suffering with syphilitic diseases are . . . not proper subjects for the Hospital . . ." Taking a double-standard view, but still doubtful of the ethics and integrity of such patients, the Board ruled in this same resolution that "no male so suffering [shall be admitted] without paying one month in advance." In June the Board relaxed somewhat and amended the resolution to read, "that women suffering with syphilitic diseases should not be admitted unless they bring testimony of a previous good moral character." The resolution on men stood.

The first separate service for the care of children to be established in any New York hospital was organized at Mount Sinai in 1878. Its creation and maintenance were made possible by a legacy of twenty-five thousand dollars, left to the Hospital in that year by Michael Reese of California. The need for such a separate service had long been felt. The department in the Dispensary was not adequate to care for the number of children who came. Nor was it satisfactory or desirable to send children into the general medical and surgical wards. Moreover, for eighteen years the Mount Sinai Staff had counted among its members the man who did more than any other to influence early pediatrics in America, and who had held the first chair in that field in the United States, Abraham Jacobi, Attending Physician since 1860.

Dr. Jacobi, a leader in New York and American medicine, possessed a flashing wit that could cut as well as glitter. Although primarily a pediatrician and physician, Dr. Jacobi—like most practitioners of his day—also practiced surgery. It was not unusual for him to perform operations on the trachea in cases of diphtheria, and it is on record that he resected ribs for empyema and operated for cancer of the esophagus.

A further step in the setting up of special departments was the organization of an eye service, one of the Hospital's leading departments, in 1879. Emil Gruening, appointed as Attending Ophthalmologist, took care of ear, nose and throat cases as well. He was to be one of the first surgeons in the United States to perform an operation for mastoiditis.

Dr. Gruening was short, compactly built, with a fine scholarly profile and the full beard of the period. His tremendous hands with their thick joints appeared especially massive in contrast to the smallness of his stature, and made his surgical skill all the more amazing. It was extraordinary to see the light, deft touch with which he performed operations on the eye, or on infants in cases of mastoiditis.

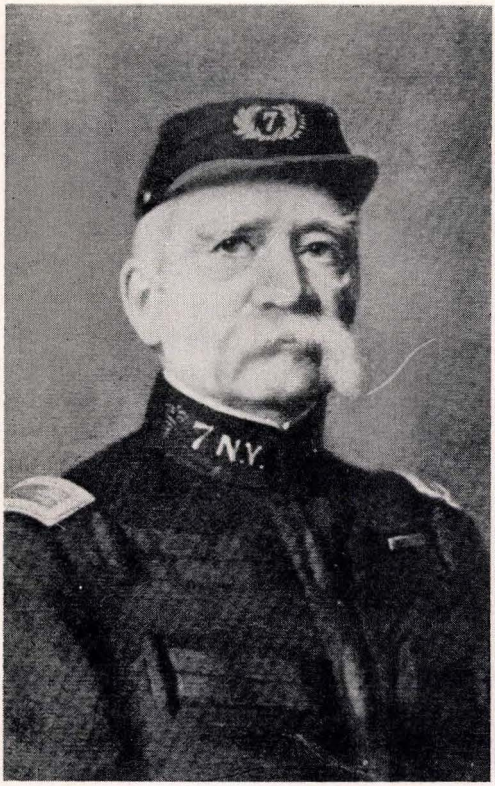
William Holland Wilmer, a graduate of the Mount Sinai House Staff, became in 1887 the first of Dr. Gruening's students and an assistant in his practice. Dr. Wilmer subsequently became a noted eye specialist in his own right, and in 1925 the Wilmer Institute at Johns Hopkins was established in his honor.

Dr. Charles H. May, a graduate of the House Staff in 1884, and later Consulting Ophthalmologist to the Hospital, was another early member of the Eye Service. He, Wilmer and Gruening were the first Americans to attempt—though unsuccessfully—the transplantation of a rabbit's eye in a human subject.

As the best graduates of the House Staff were retained and moved up in the Hospital ranks as Attending and Assistant Physicians, other changes in staff were taking place.

Of those who had been its members in 1872, only three remained in 1882: the venerable Willard Parker, now eighty years old, and Thomas Markoe serving as Consulting Surgeons; and Abraham Jacobi still active as Attending Physician to the Children's Service. Three other members completed the Medical Staff of the Hospital. They were Alfred L. Loomis, an outstanding clinician and teacher, who somewhat later was elected President of the New York Academy of Medicine; Henry N. Heineman, who was destined to become the Hospital's first Pathologist; and Julius Rudisch. The latter, while assisting Jacobi in his private practice, had been persuaded by him to become House Physician and Surgeon in 1875. When Dr. Jacobi, in 1879, became Pediatrician to the Hospital, Dr. Rudisch took over his duties as Attending Physician.

During the same period there appeared on the Surgical Staff the



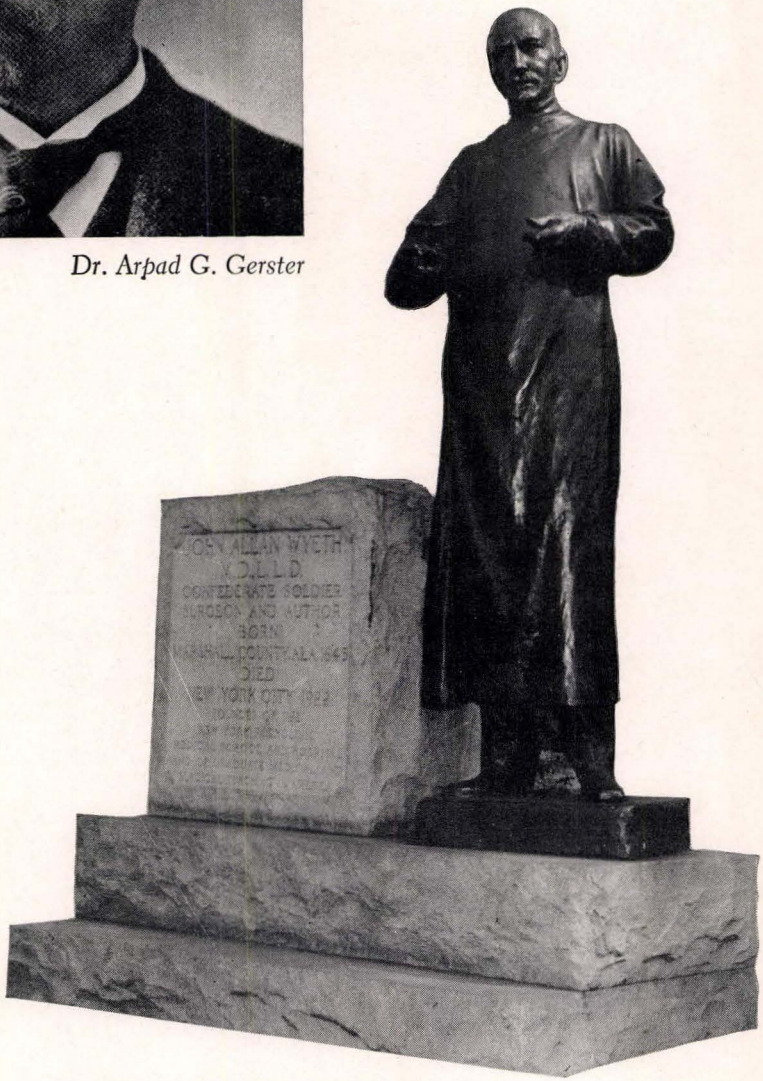
Dr. Daniel M. Stimson



Dr. William F. Fluhrer



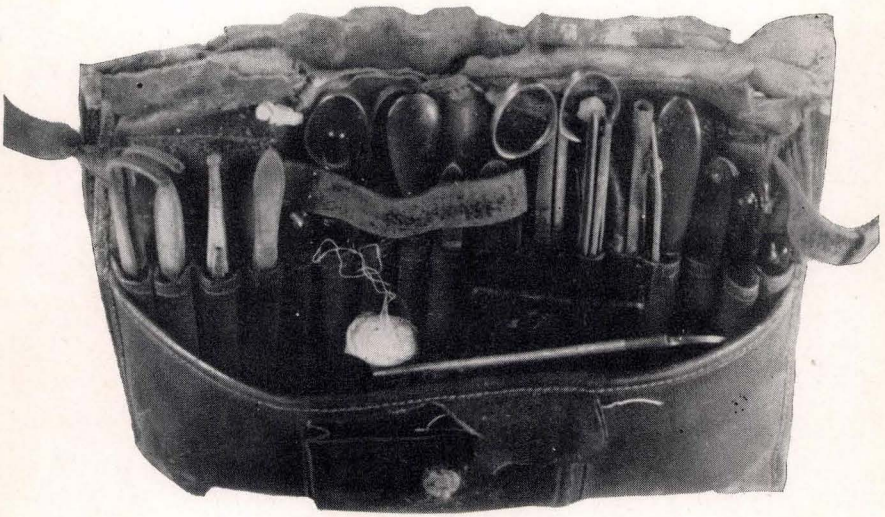
Dr. Arpad G. Gerster



Statue of Dr. John A. Wyeth, Montgomery, Ala.



Pre-Listerian Instrument Case Strapped around the Surgeon's Waist



Interior View of the "German Instrument Pouch"



Surgery, 1892

names of four men who were to establish a great tradition for the Hospital. These were Daniel M. Stimson, William F. Fluhrer, John Allan Wyeth and Arpad G. Gerster.

Daniel Stimson, the son-in-law of Willard Parker, and a follower of his school of surgery, was above all a soldier. His military interests were reflected in the manner in which he conducted his rounds. The House Surgeon was the only one he addressed at these times, and a too-enthusiastic Junior who might break in with an eager explanation was silenced with a look, to be quietly rebuked after rounds were over. A cultured gentleman, nonetheless, a connoisseur of painting, his manner polished and courteous, Dr. Stimson was less formidable after rounds. It was his invariable habit on arriving at the Hospital in his shining black barouche with its silver lamps, to tip his own coachman a half-dollar—an act which caused considerable wonder on the part of observers. Dr. Stimson was a painstaking operator, but in cases that called for a procedure developed in pre-anesthetic days he showed an amazing rapidity that recalled the headlong speed of those earlier times.

William F. Fluhrer, a surgeon of the old school as far as aseptic methods were concerned, was a meticulous operator. Imperturbably calm, he would spend hours over an operation. If lunch time came, he would interrupt his work to consume a sandwich and a cup of coffee while the patient was carefully watched over by the anesthetist. One such operation achieved the record time of eight hours. On the other hand, he, too, could show great speed in an emergency—as in his amputation of a leg in twenty seconds in a case of traumatic spreading gas gangrene. Speed, indeed, was sometimes preferred to asepsis or antisepsis. The story is told by Dr. Lilienthal, in later years to become the country's great thoracic surgeon, that Dr. Fluhrer, impatient with the lack of progress being made by the younger surgeon during an operation, took the knife from his hand, sharpened it on his shoe, and proceeded to operate. The patient recovered. Dr. Fluhrer was also ingenious in the designing of instruments and in the fashioning of wooden models for his inventions. He invented an aluminum probe for brain operations and a urethrotome which was prohibitive in price, but perfect in its function. He was one of the few early American genito-urinary specialists. In 1895 he was appointed head of the first such service established at Mount Sinai.

John Allan Wyeth was a suave Southerner of quiet manner and

iron determination, who became a pioneer in post-graduate medical teaching. At seventeen he was a soldier in the Confederate Army. Later he farmed to raise money for his education. After graduating from the University of Louisville he worked as a riverboat captain in order to earn enough for laboratory and post-graduate medical training. But on reaching New York in 1872, he found that no such thing as post-graduate medical schools existed. He took some courses at the Bellevue Medical College, and as a demonstrator in anatomy assisted Edward Gamaliel Janeway, the great diagnostician who himself was to join the Mount Sinai Staff in 1883. He then traveled abroad for two years, visiting various medical centers. Returning to New York, he was appointed Attending Surgeon on the Mount Sinai Staff in 1882. The following year he realized his ambition to establish a school for medical graduates, the Polyclinic. On its first staff appeared the names of several Mount Sinai Attending Physicians: Dr. Wyeth and Dr. Gerster on the Surgical Service, Dr. Mundé on the Gynecological Service, and Dr. Gruening in the Eye Department.

Dr. Wyeth's operating technique was characterized chiefly by the great calm and self-possession with which he worked. His operative clinics were extremely popular. The vivid descriptions of the procedure under way and the anatomy involved were delivered in so smooth a fashion that the student felt surgery might after all be as simple as Dr. Wyeth seemed to find it. Apparently nothing could disturb that monumental calm. One day when a particularly important patient on whom the surgeon had just finished operating was being carried from the room, the stretcher tipped and the middle-aged patient crashed to the floor. The only comment, made in that soft Southern accent, was, "Isn't that too bad!" The patient recovered and was none the worse for the incident.

With the appointment of Arpad G. Gerster to the Staff in 1880, the trend toward true aseptic and antiseptic surgery at Mount Sinai began. Born in Hungary in 1848, he was educated abroad and came under the influence of such great teachers as Rokitansky, Skoda and Billroth. The last, Gerster remembered as much for his friendship with Brahms as for his scientific ability. He emigrated to the United States in 1873 and, as he traveled across Europe, he visited various medical centers.

Through a letter of introduction, Dr. Gerster met Ernst Krackowitzer, and after assisting him in operations at the German (now

Lenox Hill) Hospital, of which Dr. Krackowitzer had been one of the founders, he became the older surgeon's assistant. Later he himself was appointed to the staff of the German Hospital. Highly energetic, straightforward, equipped with a thorough medical education and a rich cultural background, Arpad Gerster was well fitted to be a leader. With Drs. Fred Lange of New York and Christian Fenger of Chicago, both of whom had also been educated in European medical schools, he was among the early advocates and chief exponents of aseptic procedure. That he found the older men all attuned to pre-antiseptic methods is amply demonstrated by such incidents as Dr. Fluhrer sharpening a knife on his shoe, or Dr. Noeggerath, in the days when women's hair was abundantly long, sewing up an incision with a hair extracted from the patient's head.

In 1888, eight years after his appointment to the Mount Sinai Staff, Dr. Gerster published the first book on asepsis by an American author: *Rules of Aseptic and Antiseptic Surgery*. Previously works on the subject had been imported from England. It was also the first medical book to be illustrated with halftone plates, the photographs for which were taken by the author himself in the operating rooms of the Mount Sinai and German Hospitals. Just as Oliver Wendell Holmes in his treatise on puerperal fever forty-five years earlier had accused physicians of being carriers of disease, Dr. Gerster placed the responsibility for post-operative infection squarely on the shoulders of the surgeon.

"It cannot now be successfully denied," he wrote, "that the surgeon's acts determine the fate of a fresh wound, and that its infection and suppuration are due to his technical faults of omission and commission."

Concerning the fear of surgery, which in the seventies and eighties characterized both patient and surgeon, he wrote: "The dread of undertaking and submitting to a surgical operation has greatly diminished, and timely, that is, early surgical interference has become more and more frequent, to the advantage of both patient and physician." The declaration that, because of aseptic and antiseptic methods ". . . surgery has become a conservative branch of the healing art" was indeed a statement considerably in advance of the time.

In training the young men under him at the Hospital, Dr. Gerster insisted on the strict application of aseptic and antiseptic principles. He was one of the first to break away from the older and cruder

school of surgery, and to teach that human tissue is a delicate structure which must be delicately handled. His forceful personality, blunt and direct approach made him a teacher to be feared as well as liked and respected. There was no fooling Gerster. His students found him a compelling instructor with a vast store of practical experience, information, and anecdote to share. A. A. Berg and Howard Lilienthal, both graduates of the Mount Sinai House Staff, were students of his teaching and assistants in his private practice.

Toward the end of the century, Gerster set up two surgical services, one of which he headed. Among his innovations was the establishment of six-month periods of service for each Chief Surgeon and similar periods for their Adjunct Surgeons. He also insisted on regular daily attendance by the Medical Staff and set the example himself.

A versatile man with a great variety of interests, Gerster was a musician, a painter and in later years an etcher. A student of history and lover of literature, he was also an ardent fisherman and hunter, fond of taking long camping trips in the Adirondacks, accompanied only by an Indian guide. He was a man of practical bent and it was his delight to display to those who were interested the "German instrument pouch," a kit he carried strapped to the small of his back. This presented a somewhat terrifying aspect when, spreading the tails of his frock coat to sit down, he exposed to view the kit, "of ample proportions." It contained a collection of fine instruments which seemed adequate for most major operative procedures.

In the eighties and nineties patients were loath to go to a hospital, and the more serious the case, the more anxious the patient's family to keep him at home. It was therefore quite customary for a surgeon to operate away from the hospital, often amid the filth and insanitary conditions produced by the tenements. Gerster, therefore, advised:

> A clean, well-lighted room is selected out of which all unnecesary furniture, hangings, etc., should be removed. A bare well-scrubbed floor is preferable to a carpet. One or two narrow kitchen tables, covered with a quilt and provided with a straw pillow, will make a capital operation table. A piece of rubber cloth (3 x 4 feet) is placed over the quilt, and a clean sheet is laid on the top. Fountain syringes are filled with a sublimate solution and placed on chairs to the right and left of the operating table, and suitably suspended from a nail or chandelier near the operating table. Two tin basins are filled with a corrosive sublimate solution and placed on chairs to the right and left of the

> operating table for the occasional rinsing of the hands of the operators and assistants. The author has found that it is very convenient to be independent of the patient's resources, as far as the necessary vessels for sponges and instruments are concerned. A nest of four good-sized block-tin wash basins, six tin soup basins (six inches in diameter) and four tin bake pans will serve every purpose and the small expense will be abundantly repaid by the cleanliness and sense of comfort that will result. The employment of copious irrigation during operations requires measures for protecting the person and clothing of the surgeon against the influence of the chemicals commonly used. An ample apron, made of light rubber sheeting and reaching from the chin to the toes is most convenient, and can be easily cleaned. The surgeon's shoes may be protected by a pair of light rubbers. However, they are apt to sweat the feet. The author overcame this drawback by the use, at the Hospital, of wooden pattens (French sabots) worn over the shoes. They are donned without the aid of the hands, and keep the feet warm and dry, and can be bought at 75 Essex Street, New York.

The pre-Listerian methods of the older surgeons died hard and for some time the new surgery went on side by side with violations of its precepts. Nevertheless, the eighties saw the adoption at Mount Sinai of the sterilization of instruments in solutions of carbolic acid, surgeons operating under a cloud of carbolic acid vapor, and at the conclusion of particularly septic operations the operating rooms were sprayed with carbolic acid for hours afterwards.

Another specialty for which Mount Sinai was to become internationally famous was established with the appointment of Dr. Bernard Sachs as Consulting Neurologist in 1893. Although a Neurological Service had been in existence in the Dispensary for three years, the Board did not believe there would be sufficient cases for a regular service in the Hospital, hence it appointed Sachs as a Consultant.

Although he was not a member of the Attending Staff, Dr. Sachs was extremely active in studying the patients on the general medical wards. He had been contributing to the field of neurology since 1881, but one of his most important works was completed after he came to Mount Sinai. In 1895 he published *A Treatise on the Nervous Diseases of Children*, the first American publication on this subject. Somewhat earlier he had made important observations on a disease which he named *amaurotic family idiocy*. His name is usually bracketed with that of Warren Tay as the discoverer of Tay-Sachs Disease.

In 1894, Sachs was elected President of the American Neurological Association, an office to which he was re-elected many years later, in 1932. He was chosen President of the New York Neurological Association in 1896, and twelve years later was again elected to the Presidency. In 1931 he was elected President of the First International Neurological Congress and in 1933 he served as President of the New York Academy of Medicine.

In 1900, seven years after he had been appointed Consulting Neurologist, Dr. Sachs was made Attending to a distinct Neurological Service at Mount Sinai, the first in a New York hospital, with twelve beds set aside solely for neurological cases. Dr. Sachs was succeeded first by Dr. Israel Strauss and then by Dr. Israel Wechsler who carried on in his great tradition, Dr. Wechsler having authored one of the most widely used textbooks in the field.

At the same time that a Consultantship in Neurology was created, Sigismund Lustgarten was appointed Consulting Dermatologist to the Hospital. Just as neurological work within the Hospital was at first considered experimental, so the specialty of skin diseases, although there had been such a department in the Dispensary since 1890, was hardly thought to require the constant services of an Attending.

A student of the great European skin specialists, von Hebra and Kaposi, Dr. Lustgarten was trained not only in his own specialty of dermatology, but also in general medicine, chemistry and pathology. Coming to the United States from his native Vienna in 1889, he had soon become active in medical circles and quickly gained a reputation as a diagnostician. As a Consultant and later as an Attending Physician to the Hospital, Dr. Lustgarten did not limit his diagnostic work to dermatology alone and frequently was called to attend in the general wards. At that time there were no extensive laboratory tests and diagnosis depended almost entirely on clinical knowledge. The occasion on which Dr. Lustgarten discovered a case of leprosy in the medical wards is famous, therefore, in Hospital annals. Equally dramatic was his diagnosis of mercurial poisoning in a patient who had been isolated for scarlet fever.

Like several of his colleagues, Dr. Lustgarten was a man of culture and erudition, a lover of music and a connoisseur of painting, himself a good draftsman and a collector of fine engravings and etchings. Soft-spoken, dignified, a man of great intellectual stature, he commanded

universal respect. In 1900 he was made Attending Dermatologist, and a separate Dermatological Service was organized.

In 1893 the Consulting Staff included three other members, in addition to Drs. Sachs and Lustgarten. Dr. Thomas Markoe, the one remaining representative of the Hospital's first Staff, was the only Consulting Surgeon. The two Consulting Physicians were Alfred Loomis and Abraham Jacobi, both of whom had resigned from the Attending Staff ten years before. Upon the death of Dr. Willard Parker in 1884, Dr. Jacobi had been elected President of the Medical Board, a position he still held in 1893.

He was now sixty-three, a man of striking appearance. The statuesque head, its gray hair as profuse as ever, suggested the lion that he was. His reputation for integrity as a doctor and as a fighter for improved medical standards had placed him in the leadership of the New York medical world. As a consultant he was constantly called upon and commanded wide influence. At that time the flow of European immigration was filling the slums on the East Side of the city, and sickness among tenement dwellers was a frequent calamity. On such occasions there was an almost pathetic faith in a consultant—"a professor from uptown." Dr. Jacobi was the one most often called in such cases, and the sick poor could not have found a more honest practitioner or one more forgetful of selfish interests. Summoned at the last minute to some emergency case, his entrance was usually dramatic. Dressed in a black overcoat with a flowing black cape, and a broad-brimmed black hat, he would dash up in a black coach drawn by two black horses.

He was active in every aspect of the medical profession. Nothing of importance associated with the practice of medicine took place unless Jacobi was called on the scene. In 1881 he was elected President of the New York Medical Society, and he was President of the New York Academy of Medicine from 1885 to 1888.

The Attending Staff in 1893 was composed of nine members: five Physicians, one of whom was Attending on the Children's Service, and four Surgeons. Of the Attending Physicians, Dr. Rudisch had been on the Staff for fourteen years and Dr. Heineman for thirteen. Alfred Meyer was a graduate of the House Staff in 1878, and the energetic force behind the establishment of a medical library in 1883. Barnim Scharlau had become Physician to the Children's Service in 1883, when Dr. Jacobi was appointed Consulting Physician. Like Ja-

cobi, he was a practitioner of the old school, who sometimes turned surgeon. The loyalty of this somber man to Dr. Jacobi was a magnificent thing to behold.

The fifth Attending of 1893 was Edward Gamaliel Janeway, described by Emanuel Libman, who would succeed to the mantle, as "the greatest diagnostician of his day," a man of lightning movements and perceptions. In making his examination he would bend quickly over the patient's body, hardly appearing to notice details, yet when he raised his head the diagnosis would be complete, including reasons for the conclusions he reached. The examination seemed to have taken only two minutes but not an item had been overlooked. There was nothing superficial about this spectacular performance, for Dr. Janeway's knowledge was based on sound clinical experience, an absorbing interest in pathology and brilliant powers of observation. Devoted to his work, he was tireless and enthusiastic, an inspiring leader and talented teacher. His manner was simple, kind, quiet and reserved.

Born in New Jersey in 1841, he had been graduated from the College of Physicians and Surgeons in 1864 and four years later was appointed Curator of Bellevue Medical College. In 1873 he became Professor of Pathological Anatomy at Bellevue, and later Dean of the School. It was in the wards and the post-mortem room at Bellevue that a great part of his extensive clinical and pathological knowledge was gained. Always interested in matters of public health, he served as Health Commissioner of New York from 1875 to 1882. He was a pioneer in the struggle against tuberculosis, and had emphasized its contagious nature as early as 1882. For many years he was called upon by the city whenever epidemics threatened. It is significant that in the training of this great physician, pathology played a fundamental part. The role of science in medicine was assuming an increasingly important position.

The Surgical Staff in 1893 remained unchanged, with Drs. Fluhrer, Gerster, Stimson and Wyeth as its members. Two years later Dr. Stimson joined the Consulting Staff. Of the two special services, Gynecology and Ophthalmology, Drs. Mundé and Gruening continued as chiefs. In this period Dr. Mundé, described by Dr. Lilienthal in later years as the "king of the Department of Gynecology," carried on the operative clinics that are remembered as impressive and highly picturesque. Dr. Lilienthal described them as follows:

> Doctor Mundé's clinics were attended by many representative visitors and the scene at the beginning of the session was, indeed, striking. The room had been prepared and the space for visitors roped off. The patient was placed on the table in the correct posture. The anesthesia was managed by a member of the House Staff with the barbaric open ether inhaler. At the slightest sign of reaction the ether was pushed almost to the drowning point. Everything in readiness, Mundé stripped to the waist, except for a short-sleeved thin undershirt far from concealing his splendid torso, his trousers covered by a rubber apron, entered the arena under the ropes, the veritable picture of a superb prizefighter.

Of this procedure, Dr. Mundé himself wrote:

> The Surgical Staff endeavor to be scrupulously clean and aseptic at all operations. I myself put on a clean undershirt and a pair of trousers which I keep at the Hospital and which are baked after every operative clinic. I do not believe it possible that more scrupulous antisepsis can be employed anywhere than is done in the operating rooms or wards of the Mount Sinai Hospital. Visitors are admitted to operations with the distinct understanding that they carry no infection with them and refrain from conversation or from handling anyone or anything connected with the operation.

By the nineties, aseptic methods of operating technique had generally replaced the antiseptic, and although instruments were still kept in carbolic solutions, the carbolic spray was no longer used. In the equipment, however, there were glaring violations of aseptic procedure. The usual routine was to don over a previously sterilized long white butcher's coat a rubber apron which could only be washed. The hands were then scrubbed with green soap for six or seven minutes by the clock, dipped into potassium permanganate and, to decolorize them, into a strong solution of oxalic acid. By that time they were raw and sore, and frequently there appeared points of irritation which were apt to turn into boils.

Some of the Staff used the cotton gloves advocated by von Mikulicz, who himself once operated at Mount Sinai as the guest of Dr. Gerster. It is remembered that he used about twenty pairs of these cotton gloves in the course of a twenty-minute operation. Rubber gloves, a tremendous innovation, were introduced into the Hospital by Dr. George E. Brewer, who served on the Surgical Staff for one year in 1899, but they were not generally accepted by the Staff, many of whom preferred operating with bare hands. The first gloves reached to the elbow and were therefore somewhat clumsy.

Masks were never used by the operators, the interns or the nurses. Towels were carefully sterilized and then piled on open shelves where dust promptly contaminated them. The operating room itself, even in the nineties, continued to be lined with insanitary dark wood and wainscoting. The table used was designed by Dr. Gerster. Made of ordinary wood, it was constructed at an angle and equipped with a trough that led to a pail suspended beneath. The covering was a rubberized material which could only be washed, and was held down to the table by large brass-headed nails.

There were other disadvantages too. In order to protect themselves against carbolic-acid solutions, many surgeons wore the sabots suggested by Dr. Gerster in his book. The only containers large enough to hold an adequate supply of sterilized bandages were old-fashioned candy jars bought at the corner store and dignified as operating-room equipment. Operations were carried on by gaslight. There was no head operating-room nurse. A member of the House Staff presented the instruments, and until 1896 nurses helped only with the dressings. In 1896, however, "Dr. Gerster appeared before the Board and argued in favor of a change in the handling of instruments of the Surgical Department, and the suggestion came out that nurses could receive valuable training and do good service in connection with operations."

One consequence of the gradual adoption of aseptic and antiseptic methods was a slow but steady growth of confidence in surgery on the part of both patient and surgeon. During the ten years from 1884 to 1894 the annual number of operations increased from 456 to 1311, indicating that surgery was slowly coming into its own. Further indication of this progress is seen in the beginnings of surgical specialization, aside from gynecological and ophthalmological, which had been established early at Mount Sinai. In 1895 a Genito-Urinary Service, commanding ten beds, was organized under Dr. Fluhrer, one of the few such specialists in the United States at that time. But even in the nineties, pre-Listerian surgery was not quite a thing of the past. The story is told of a surgeon who, on coming to the Hospital to operate, was asked if he did not care to wash his hands. "What for?" he replied, "I washed before leaving the office."

In 1893 the Staff was further enlarged by the appointment of assistants to the various services. Nathan E. Brill and Morris Manges were added to the Medical Staff. At first interested in neurology, Dr. Brill had increasingly turned to investigation in internal medicine and did

extensive research in blood diseases. Dr. Manges, later Consulting Physician to the Hospital, became Professor of Clinical Medicine at the New York Polyclinic Medical School in 1898, and in 1911 held the same position at the Bellevue Medical College where he continued to teach for eleven years.

In surgery, Howard Lilienthal and William Van Arsdale were appointed. Dr. Lilienthal, who in 1922 became Consulting Surgeon to the Hospital, was a graduate of the House Staff of 1888. Dr. Van Arsdale, a promising young surgeon whose death in 1899 was most untimely, was the inventor of an instrument, the first of its kind, with a saw edge so designed that it could cut a curved line.

Joseph Brettauer, later Consulting Gynecologist to the Hospital, and in 1927 President of the American Gynecological Society, was also appointed in 1893 to the Gynecological Service. An incisive, bold, sure operator, by his organizing ability and professional integrity he left an indelible mark on the Gynecological Service. He was a pioneer in the development of major gynecological operations.

In the same year Henry Koplik was made Assistant to the Children's Service. Four years earlier Dr. Koplik had been the founder, at the Good Samaritan Hospital, of the first sterilized milk station in the United States. In 1898 he discovered the spots diagnostic of measles, known as Koplik's sign. When Dr. Koplik died in 1927 he was Consulting Pediatrician to the Hospital to which he had given thirty-four years of distinguished service.

These are some of the men who, in the era of descriptive, clinical medicine, made the Mount Sinai Hospital one of the country's leading centers of diagnosis and treatment in medicine and surgery. That era, characterized by individual brilliance and initiative, was to come to an end with the close of the nineteenth century and the development of laboratory sciences in medicine. With their development, individual effort was gradually replaced by the group or teamwork concept characterizing the twentieth-century hospital.

8

The Twentieth Century Opens: Men and Medicine

MOUNT SINAI, AS THE TWENTIETH CENTURY OPENED, WAS A STRAW IN the many currents and cross-currents of a new era. It was to be transformed by the energy of these currents, both medical and social; and the Hospital itself was to become a potent force in shaping them.

The midnight that marked the dividing line between the nineteenth and twentieth centuries was a historical moment. People were confident and optimistic; they felt not only that they were swept along by the current of history, but that they were actually helping to shape its course. Talk about new horizons opening invitingly before the human race suited the mood of many.

And the fact is that the turn of the century was a particularly important short moment in the history of the world, and most especially so in the history of the United States and its people and institutions.

The United States was then a raw adolescent among nations. It had its own identity and character, its own political principles and methods, its own social and economic problems and its own approach to solving them. It was strong, but not quite sure what to do with its strength.

The United States was already a world power by virtue of its industrial and agricultural production, tremendous even then: more than half of the world's cotton, corn, copper and oil came from the United States in 1900, more than a third of the whole world production of steel, pig-iron, and silver were American, and almost a third of such products as coal and gold. This huge production was partly due to the

country's fabulous natural resources. On the other hand, technological developments—improved fertilizers, efficient machinery, scientific irrigation—were applied more widely in the United States than anywhere else in the world. There were already more than a million miles of telephone wire in service; 200,000 miles of railroad lines transported people and products from coast to coast.

There were all told 76,000,000 people in the country. Of these, 26,000,000 were immigrants or the children of immigrants; 41,000,000 were whites born of parents who had been born in the United States. There were 9,000,000 Negroes, 114,000 Asiatics and 237,000 descendants of the original Indian inhabitants, some of them full-blooded remnants of the great tribes.

Of the most recent immigrants, some 30 percent were British, 31 percent German, 4 percent Swedish, 4 percent Russian, 4 percent Austrian. Only 3 percent at that time had come from Italy; immigration from Italy, however, was increasing yearly, as were arrivals from Russia and Poland. There were in the United States 1,050,000 Jews.

Movement between the United States and Europe was not all one way. Americans went to Europe, too, and not only to make the Grand Tour. Many went to study at the great European centers of learning. Medical men, especially, made long study tours of the Continent, concentrating on Vienna and Berlin as generations before them had worked in France. When they came back, they brought with them the newest European ideas, which they incorporated into the growing body of American medical development. The same exchange of ideas and methods went on in the other sciences, and in the arts. Most Americans in 1900, however, preferred to concentrate on their own country. There was a great deal to occupy them. The famous figures of the period pass before our eyes jumpily, like people in an old newsreel: Theodore Roosevelt, his Rough Riders, his fight against the trusts, his grin; William Jennings Bryan sweating in his shirtsleeves; Cy Young pitching a perfect game against Rube Waddell's one-hitter; J. P. Morgan startling the financial world by setting up U. S. Steel; Andrew Carnegie establishing his libraries and the Carnegie Foundation.

To many Americans, Europe seemed impossibly far away and alien. But on January 1, 1900, Kaiser Wilhelm made an ominous speech—a speech that committed Americans, whether they realized it or not, to serious and continuing action as a world power. His words did not

sound too important at the time: he pledged that the German Navy would be expanded unremittingly, until it matched the German Army in strength and striking potential. One of Wilhelm's ministers backed him up by declaring that no longer would Germany suffer "political impotence and economic submissiveness . . ." Woodrow Wilson, whose death can, not unreasonably, be attributed to the consequences of that speech, was a professor at Princeton when it was made. Herbert Hoover, who was to achieve fame at least partly because of his attempts to undo the damage foretold in Wilhelm's speech, was working as an engineer in China. But they, with many millions of other Americans whose lives were to be so profoundly affected, did not hear the crack of doom in the Kaiser's belligerence.

Instead, many Americans were distressed by what seemed to them a most unfortunate consequence of the Spanish war—acquisition of dependent territories. They did not want to be classed with the imperialist nations, to whose policies they were traditionally opposed. They would accept responsibility for the Philippines, Guam, Puerto Rico, and the rest, only if they were convinced that the United States expanded only to bring democracy, free trade and improved sanitation to peoples hitherto oppressed. The expansionist policy was fought out in bitter political campaigns. Meanwhile, American officials were cleaning up Puerto Rico and Cuba, educating Cuban schoolteachers at Harvard, seeing to it that polygamy was abolished on Guam and that the Sultan of Sulu freed his slaves.

Americans also had a great many domestic problems to occupy them during the first years of the century. They took their politics seriously—75 percent of the eligible voters went to the polls in 1900. Yet there was, as Mark Sullivan puts it, ". . . a certain mood that was prevalent in America in 1900, a mood of championship for the underdog against the upper, a disposition of the average American to see himself as an underdog in economic situations and controversies in his own country. That . . . mood . . . determined much that happened after 1900 . . ." The prevailing mood is perhaps best exemplified in the overwhelming popularity of Edwin Markham's gloomy "The Man With the Hoe," which hung, framed with a reproduction of Millet's bitter picture, over hundreds of thousands of parlor tables.

One reason for the existence of such a mood in a country where there was so much to be optimistic about was the enormous power of

the huge trusts which wielded absolute control over millions of people through their hold on industries, banking and railroads. The two most famous were United States Steel, which made J. P. Morgan one of the most powerful men in the world, and Standard Oil, which made John D. Rockefeller, Sr., a legendary figure and a fantastically rich man. Popular hatred of the trusts made possible Teddy Roosevelt's popular fight against them. People all over the country supported anti-trust legislation; it was almost as if they hoped to solve all the nation's problems by the single expedient of trust-busting.

In January, 1901, the Texas oil boom began at Beaumont—a boom that meant gasoline was to be the twentieth-century fuel. In July of 1901, the first turbine-driven steamship crossed the Atlantic. Santos-Dumont flew a dirigible from St. Cloud to the Eiffel Tower and back. In December, electric street cars replaced cable cars on Broadway in New York. Max Planck, in the same year, advanced to his fellow-scientists the revolutionary quantum theory, and the United States Navy discontinued use of carrier pigeons because of the brilliant success of Marconi's wireless experiments.

In 1902, the running time of trains between New York and Chicago was reduced to twenty hours. Khaki was substituted for the blue of the Civil War in army uniforms. Henry Ford established an unofficial speed record in an automobile—a mile in 1.01⅕ minutes. The Pennsylvania Railroad got a franchise for tunnels under the North and East rivers in New York.

In 1903, the first Pacific cable was opened. Wilbur and Orville Wright made the first airplane flight at Kitty Hawk, North Carolina. The government established a Department of Commerce and Labor.

Dr. Wardell Stiles attributed the "shiftlessness" of large numbers of poor people in the south to hookworm, and the Rockefeller Foundation began a systematic campaign to exterminate the disease. The Ford Motor Company was organized. John Dewey published his *Studies in Logical Theory*, which was to influence philosophy and education for years to come. Dr. Harvey Wiley of the Agriculture Department got much newspaper notice because of his "poison squad" —a group of employees who ate all kinds of packaged foods to determine the effects of artificial coloring and preservatives on the human system. The City of Boston installed the country's first police cars; St. Paul passed an ordinance prohibiting dangerous firecrackers on

July 4th. Scientists were just beginning to grasp the tremendous implications of radioactivity.

The first New York-New Jersey tunnel was opened in 1904, a month after the outbreak of war between Russia and Japan. The winter in New York was unusually severe; there were eighty days of sleighing in Central Park. The *General Slocum* burned in New York harbor with a loss of 900 lives. The Government Printing Office installed forty-six Mergenthaler typesetting machines. New York's first mounted police rode the streets. The "Subway Tavern" was established by reformers at Mulberry and Bleecker Streets, where drinking was supposed to be the worst in the city; it promised to sell only the purest liquors. Ida Tarbell published her *History of the Standard Oil Company*; Lincoln Steffens' *Shame of the Cities* appeared.

In 1905 came the Einstein theory of relativity, the discovery of the syphilis spirochete, and the first intelligence tests (developed by Alfred Binet). Vitamins were discovered in 1906, the same year that Upton Sinclair published *The Jungle*, which precipitated Federal action on a Pure Food and Drugs Act and a Meat Inspection Act. The following year brought the vacuum tube; and 1909 saw the publication of Freud's work in English and the first theory of the gene. That was also the year that Henry Ford started mass-producing the Model T. In 1910, Ehrlich introduced salvarsan as a treatment for syphilis.

By 1910, then, the twentieth century had many of the characteristics we think of as distinctively "modern." Some of the social and political developments that were to come during the early years of the century were world-shaking—the Russian revolutions, the First World War and its consequences, the rise of the United States as a world power. But probably more important in the long run were developments in science, technology and medicine.

The century opened on medical science and medical practice in a state of transition. Quackery continued to flourish; medical cults of all kinds had thousands of followers. But the doctors, having discarded many of the useless and even harmful practices of previous generations, were trying to assimilate the astonishingly rapid developments in the basic sciences and turn them to the advantage of their patients.

In the United States, they did their best with a population in which the average expectation of life was 49 24/100 years (today it is close to 70). The death rate from infantile diarrhea alone, in 1900,

was 108.8 in every 100,000. In a population of 100,000, tuberculosis claimed 201.9, influenza and pneumonia together killed 181.5, typhoid and paratyphoid 35.9, diphtheria, 43.3. Heart disease claimed 7500 victims, nephritis 5000, cerebral hemorrhage 4100, cancer 3600, bronchitis 2600 in every 100,000 people.

Doctors were still helpless against yellow fever, typhus, cholera and bubonic plague, largely because they did not know how these diseases were transmitted. Nor were these dread plagues remote threats. Mississippi had a yellow fever epidemic late in 1900, from which thousands fled in terror, leaving their homes unlocked and untended. In Louisiana alone, yellow fever in one year cost 4056 lives and $15,000,000.

In 1900, there was no antitoxin for diphtheria, no insulin for diabetes, no vitamins for deficiency diseases, no penicillin, no sulfa drugs, no blood or plasma for transfusions. Even aspirin had been introduced only the year before. A few hospitals were just beginning to use X-rays, but with little understanding and poor equipment.

Yet the century opened on a note of hope. In every civilized country progress was being made against pain, disease and death. And one of the most notable forward steps was made by American medicine. This was the defeat of yellow fever in Cuba, a defeat in which the names of Walter Reed, William Crawford Gorgas, Carlos Finley and the martyred Jesse W. Lazear stand out.

Some of the work being done at the turn of the century was completely new, some a direct outgrowth of the great achievements of the nineteenth century. Whatever their origin, however, new developments came very fast. In medicinal chemistry, for instance: in 1900, benzocaine was introduced as a local anesthetic; in 1902 adrenalin, the first hormone, was purified; in 1903, veronal, the first barbiturate hypnotic, was introduced; in 1904, procaine made its appearance as a local anesthetic. Adrenalin was synthesized in 1904; in 1907, trypan red was found to kill the trypanosomes for the pain of mal de caderas; in 1908, cincophen was introduced for the pain of gout and arthritis and sulfanilimide was synthesized, although its bacteriostatic activity remained unknown. In 1909 came the synthesis of arsphenamine. The vasodilator activity of histamine was discovered in 1910; in the same year acetarsone was tested against syphilis and yaws.

At the turn of the century, however, new medical discoveries were

slower to get to the mass of doctors and patients than they are now. One reason, in the United States, was that the general run of hospitals and medical schools was still far behind the best. Although plans for reform of medical education had been discussed for some years, and some major improvements had been made, there were still many outright bad schools or "cultist" schools teaching medical fads rather than medicine, among the 159 in existence in 1900.

In 1901, the American Medical Association was reorganized, and its Council on Medical Education and Hospitals actively worked at the difficult job of improving education in both medical schools and hospitals throughout the country. Leaders of medical thought recommended case study rather than the lecture system, more attention to the fundamental sciences, more study of pathology, better organized hospital training, and so on. A few years later, in 1908, the famous Flexner report to the Carnegie Foundation for the Advancement of Teaching made the job of getting rid of the diploma mills somewhat easier. In 1913, the American College of Surgeons helped push standards still higher. Each prospective member was required to submit 100 case histories of patients he had treated. Many surgeons found they could not meet this requirement because their hospitals did not keep detailed case histories. When it was found further that many hospitals had neither laboratories nor X-ray equipment, the College of Surgeons decided to withhold its approval from any hospital that did not meet its standards as to staff, records, treatment and diagnostic facilities. Improvement in hospital facilities thereafter took place rapidly.

Another most important move in improving American medical standards generally—and incidentally in freeing medicine here from too great a dependence on Europe—was the increased interest of government and private philanthropy in supporting medical research. This interest paralleled similar developments in other countries; it meant that the implications of the great achievements of the late nineteenth century were being understood and absorbed. In 1901, the Rockefeller Institute of Medical Research was founded, with the great Dr. Simon Flexner as its first director. Medicine, it was agreed by those establishing the foundation, "could hardly hope to become a science until . . . qualified men be enabled to give themselves to uninterrupted study and investigation, on ample salary, entirely independent of practice." The Rockefeller Foundation was followed

by other examples of private generosity, organized either to do general research or to work on specific problems. Meanwhile, in 1902, Congress approved an advisory board of brilliant medical experts for the Marine Hospital Service [Public Health Service] Laboratory. In 1912, this little laboratory was authorized to "investigate the diseases of man," and given what was for those days an extremely generous appropriation.

The concrete job facing the research men of the day was staggeringly large, even though the causative agents of most diseases, except the virus diseases, were known. Laboratory animals could be infected experimentally with the bacterial diseases. Pure strains of bacteria could be isolated and cultured. Dyes and the phenolic compounds were known to kill bacteria in the laboratory. Bacterial immunity was well known. Serum therapy was used to cure disease. Protozoal infections like malaria and amoebic dysentery could be treated with quinine, emetine and ipecacuanha, although neither the diseases nor treatments were well understood. The great search was for more cures—efficient, rapid, inexpensive ways of ridding man of his burden of disease.

The search was paced by the great Paul Ehrlich, the father of chemotherapy. He did his work when the chemists were absorbing new ideas about electrons and atomic nuclei from physics into their own science and using them to create new theories and discover new facts about chemical structure and action. Ehrlich was also a pioneer in co-ordinated team research. Among his other achievements was the development of trypan red (a dye) as a treatment for trypanosome infections. After experimenting with atoxyl (an arsenical compound) against sleeping sickness he proceeded to develop a whole series of potentially valuable arsenicals by rearranging the chemical structure of the basic compound. Later, impressed by the observations of others that arsenicals were effective against spirochete infections like fowl spirillosis and syphilis in apes and rabbits, he began to study derivatives of arsenobenzene. After Ehrlich and Emil Bertheim had performed 605 patient experiments, they prepared the hydrochloride of dihydroxydiaminoarsenobenzene—the miraculous 606, or salvarsan. In 1911, salvarsan was found to cure relapsing fever, syphilis and trypanosomiasis. The following year Ehrlich capped his own achievement by introducing neoarsphenamine, acknowledged to be the greatest achievement of chemotherapy up to the sulfonamides.

While Ehrlich and others were performing such feats in the chemical laboratories, other medical sciences were moving ahead at a most impressive rate. So much, in fact, was accomplished that there is space here to name only a few of the highlights. Probably most important was the dynamic surge in biochemistry—the chemistry of the living organism—once a minor branch of physiology, now not only a major science itself but a source of fundamental knowledge for virtually all branches of medicine. As the century opened, the biochemists, dissatisfied with the mechanistic approach of the nineteenth century, were developing a new attitude toward their science. As Otto Meyerhoff has put it, "They felt strongly that all living beings had much in common, and that the essential facts of the life process could best be studied by investigating the universal structures, functions and substances common to all living creatures."

This approach turned out to be extremely fruitful. Implemented by finer laboratory technology, it led to detailed knowledge of how the body works. It led directly to an analysis of the structure and function of the proteins, carbohydrates and lipids (fats) necessary to life, and of the various vital compounds like hemoglobin, the bile acids and the porphyrins, which have direct bearing on health and disease. The study of vitamins and their role in metabolism and the isolation of the hormones and clarification of their job in the body also grew out of the new biochemistry.

Nearly all these studies were begun, or planned, in the early years of the twentieth century. The first intimation of the existence of vitamins and of their importance in the body, especially for growth, for instance, was made in 1909; in 1915, when this "growth factor" was found in cod-liver oil and butter, it was named Vitamin A. The great Emil Fischer in Berlin, under whom a number of Mount Sinai men studied, started his studies of protein structure, including the amino acids, in 1906. The idea that the various organs of internal secretion poured their key substances into the blood was well accepted at the beginning of the century; these substances were named *hormones* in 1905, after adrenalin (epinephrin) had been isolated from the adrenal medulla. Ten years later, thyroxin was isolated from the thyroid.

To clinical medicine, these discoveries and developments offered new, efficient methods of diagnosis and treatment and led to the understanding of many diseases and conditions that previously were

untouched. As their implications were more widely understood and applied, they laid the foundation for today's medicine.

While biochemistry was establishing itself, physiology was continuing to investigate and describe how the body works—how the heart beats, how air is taken in and expelled, how each part of the body acts on or with the others. Although physiologists were beginning to turn their attention more to the physics and chemistry of living processes than to simple description, there was still much to be learned about the "working plan" of the body. One development early in this century revealed that the central nervous system is the route by which the body makes its internal adjustments to the world outside. Later, investigations of the newly discovered hormones made it clear that there is an extremely close relationship between these chemical activators and the functioning of the nervous system.

As early as 1903, the string galvanometer, which measured minute changes in electric charges in living tissues, was invented. For the first time, doctors were enabled to trace the actual functioning of the heart by means of the currents it generates as it beats, and thus a way of finding out the clinical meaning of variations in heartbeat and damage to the tissues of the heart. With these and other developments—like methods of studying the air in the lungs, which led to studies of how oxygen is transported through the body by the hemoglobin in the blood—physiology prepared itself for the even more startling achievements that were to come after the First World War.

Medicine also absorbed advances in physics and took increasing advantage of technological developments of all kinds. Radium and X-rays had been discovered at the end of the nineteenth century. Medical men began using Professor Roentgen's "shadow pictures" almost immediately to aid in diagnoses of a multitude of ailments and also in treatment. Radium also was put to use shortly after its discovery. Improved metals, electricity—even the simple electric light —all were adapted to medicine's needs.

But the surgeon, rather than the research worker, was then the glamorous figure in medicine. When the century opened, surgery was at a turning point. Although the brilliant discoveries of asepsis and antisepsis in the nineteenth century had made operations safer and anesthesia, by making them painless, had made dramatic new operations possible, surgery was still severely handicapped. Anesthesia could not be well controlled; fatal shock and bleeding were ever-present

specters in the operating room. Speed was an essential part of the surgeon's skill. People dreaded the surgeon's intervention as much as they respected his great achievements.

The surgeons, aware of these handicaps, were much interested in research to overcome them. As a practical matter, they were able to perform a large number of operations, aside from the ancient ones surgeons had been doing since early times. They could operate successfully on some of the internal organs, like the kidney and the ovary. Operations for goiter were done; amputations, even involving intervention in major joints, were successful. Abdominal surgery was beginning to develop; appendectomies could be performed, as could ulcer repair, repair of hernias and similar procedures.

The early twentieth-century surgeons also made brilliant explorations in the surgery of the chest, nerves and brain. To do this properly, they had to apply much more than their knowledge of anatomy, pathology and pure surgical technique; in incorporating knowledge derived from other sciences, they laid the basis for the surgery of the twentieth century which is characteristically experimental and concerned with the broader aspects of surgical disease, not only the local lesion.

Surgery was one of the few branches of medicine to have developed into a full-fledged specialty at the turn of the century. Virtually all the other modern specialties were practiced as part of either general medicine or general surgery. Today, one in every sixty doctors is a certified pediatrician, for instance, but in 1900 there were extremely few, even at university medical centers.

Nevertheless, interest in child welfare was growing. The United States Children's Bureau was established in 1912. In 1908, New York City set up the first "well-baby clinics." Milk stations were operating in many cities; parents, teachers and public-health authorities were beginning to become intensely interested in health, recreation and nutrition for all children. It was inevitable that doctors should interest themselves more and more strongly in medicine for children.

Pediatric wards and clinics were set up at a number of hospitals and medical schools in the first decade of the century. Pediatricians interested themselves intensely in nutritional problems, as well as the infectious childhood diseases and in the special surgery necessary to repair congenital malformations. Among their achievements is the now universally accepted standard of absolute cleanliness for babies,

especially in connection with their food. They were also quick to adopt methods of disease prevention and immunization from other branches of medicine and to apply new knowledge of nutritional value to their little patients.

Other specialties were following parallel paths. In obstetrics, for instance, new knowledge of the hormones, of endocrinology and of pharmacology helped lay the foundation for solution of many formerly baffling problems. In psychiatry, the introduction of Freudian psychology led to much greater insight into diseases of both body and mind.

At Mount Sinai, as at other hospitals of the first rank, these trends were noted and absorbed. The Hospital's close connections with Europe—connections maintained because of the years its staff members spent studying abroad, as well as because many of the Hospital's physicians had immigrated from the European medical centers—speeded the exchange of knowledge. At the same time, the Hospital was developing its own forward-looking traditions of research, practice and community service.

During the early years of the century, for instance, it was one of the few American hospitals at which neurosurgery was performed successfully. Some of the country's best practitioners were included among its general surgeons. Its pediatrics service was unique in scope and achievement. Its medical men were among the first to combine laboratory data with bedside observation in a systematic way. It was one of the first hospitals independent of a university to organize a laboratory system which was an integral part of the hospital.

The combination of all these factors with a persistent and intense humanitarianism made Mount Sinai one of the great American centers of medicine. Its development was especially rapid in the fifty years following the turn of the century, a story of continuing achievement against disease and death, in spite of war, depression, inflation and social turmoil.

9

Two Hospitals: Two Presidents

THE QUESTION OF A NEW SITE AND NEW BUILDINGS FOR MOUNT SINAI was first brought up by the Board of Directors in January, 1893. Even then, the Lexington Avenue buildings were inadequate and inconvenient. The Pathology Laboratory was jammed into what had been a nurses' cloakroom; the noisy drills at the nearby Seventh Regiment Armory could be heard distinctly in the hospital. Emergency cases had to be cared for in the literally named "accident closet" in the entrance hall. The city's population exceeded 2,000,000; need for service increased yearly.

More space for staff, for patients, for equipment, was imperative. Mount Sinai tried to keep up with these demands by constant expansion of its Lexington Avenue facilities. A new Dispensary had been built. A District Corps of doctors and nurses had been created, the first service of its kind in the city, to provide care for patients who could not be attended in the Hospital or Dispensary or elsewhere. These only relieved the condition temporarily. Hundreds of patients yearly had to be kept on a waiting list because there was no room to accommodate them. The situation worsened with each passing year.

In 1893 the Board of Trustees decided to do something about it, spurred, in part, by a disastrous fire which broke out in equally overcrowded Presbyterian Hospital four years before. The Board resolved to erect a new fireproof building on the same site Mount Sinai then

occupied or on a new one. The new building was to have a bed capacity for three to four hundred patients. But, urgent as the need was, it could not be met because of the severe financial depression of the early 1890's.

Not until 1898 could the Trustees take positive action. By that time, the depression was easing; subscriptions previously pledged by friends of the Hospital for the purpose of building a new one could be honored, and other funds could be solicited and obtained. The first step was to acquire land for the new Hospital.

Choosing a site in the expanding city was not easy. It had to be easily accessible for both doctors and patients, close to main lines of transportation and to sources of supply. At the same time, it had to be quiet and away from the noise and dirt of the congested sections of the city. Because it was to be a permanent site, it would have to be located so as to take advantage of the city's growth, and yet not be in a neighborhood likely to become heavily industrialized or otherwise undesirable. It also had to be large enough not only for the Hospital's current needs, but for future expansion.

The site finally chosen—thirty full lots bounded by Fifth and Madison Avenues on the west and east and by 101st and 100th Streets on the north and south—fulfilled all these requirements. To the west, across Fifth Avenue, was Central Park. No matter how crowded the rest of the neighborhood became, the hospital could never be completely walled in. Patients on the Fifth Avenue side could always be assured of fresh air, sunshine and a pleasant view; those in other parts of the hospital would benefit indirectly.

There were a few apartment houses on upper Fifth Avenue; a number of elaborate houses belonging to the city's wealthy families were being built. The block between 99th and 100th Streets, along Fifth Avenue, was empty, as was 100th Street between Madison and Fifth. On 99th street, between Fifth and Madison, were a few six- and seven-story apartment buildings. Between 101st and 102nd Streets, along Fifth Avenue, was one apartment building; but 101st Street, between Fifth and Madison, was solidly built up with five-story residences. To the east were some substantial apartment houses, and some of the tenements that were eventually to turn into one of New York's worst slums.

North of 101st Street, the streets and avenues were hardly built up at all. But to the south, along the cross-streets, houses and apartments

were beginning to jostle each other in what little space was available. (The crowding buildings were still far enough away, however, to allow the architect to plan for the main wards to face south—"so that all possible light and air may be secured.")

One of the Trustees offered $25,000 for a suggestion of a better site (the ground along the East River on which the Rockefeller Institute now stands had been rejected because it was hard to reach and because of the noise of the river traffic). No better location could be found. The 100th Street site was bought for $387,000 in April, 1898. Later, when construction began and it was found that more room was needed, four lots at the northwest corner of Madison Avenue and 100th Street were bought and the Hospital could be planned to fill the square block.

Many of the city's outstanding architects submitted designs for the new Hospital. That finally chosen (with the advice of two disinterested experts) was marked "Light and Air," and was the work of A. W. Brunner. His plan was an innovation in hospital architecture. Rather than one large building, he planned ten separate units connected by passageways. Each building was to be five stories high; the building materials were to be light brick and white marble. Although the buildings were set off with heavy stonework, and the façade of the Administration Building was ornamented with colonnades and criss-crossed with string-courses, the design was a notable departure from the prevailing style of the era.

On May 22, 1901, the basic construction work was far enough along so that the cornerstone could be laid. The ceremony was considered important by many who had nothing directly to do with the Hospital. The new Hospital buildings represented not only a major addition to the health facilities of the city, but a triumphal step for the Jewish community and for Mount Sinai itself. A special committee of the Trustees (under the chairmanship of Isaac Stern and including Max Nathan, Joseph Fox, Edward Oppenheimer, Simon Rothschild, Adolph Lewisohn, Emil Levi, David Wile, Elias Asiel, George Blumenthal, Morris S. Barnet, Isaac N. Heidelberg, Isaac Wallach and Henry R. Ickelheimer) arranged the program. Stands for 3000 spectators were built. A box, containing coins, the daily and Jewish papers of the date, a condensed history of the Hospital and copies of its annual reports, was prepared to go into the cornerstone. Eminent men from many walks of life were invited to be present, and most of them

accepted. A military band, alternating with a band from the Hebrew Orphan Asylum, played during the ceremonies. A poem was especially composed for the occasion. Reporters and at least one press photographer—then rather unusual—were present. Magazine artists sketched the scene.

Only the Governor of New York, of all the dignitaries invited, could not be present. The others who were asked to speak—Randolph Guggenheimer, President of the New York City Council, to represent the Mayor of New York; Edward Lauterbach, long the Hospital's legal adviser; Seth Low, president of Columbia University; and Dr. Abraham Jacobi, president of Mount Sinai's Medical Board—all came to mark the occasion.

The speeches were sincerely congratulatory. Mr. Guggenheimer reminded his hearers that the Hospital was dedicated to the care of the people of the city, without regard to race, creed or color. That dedication, he said, "represents the public ideal of Judaism. Its theology . . . as a practical issue, insists . . . upon the doctrines of the worth and brotherhood of man." The Jews, he continued, "recognize the living truth of ethical religion that the hospital is the temple and refuge of stricken humanity and that the noblest exponents of religious duty are the physicians and surgeons who enter the lists with death, and the gentle ministering nurses whose hands and voices bring help . . . to the sick and suffering."

Seth Low, speaking as the president of Columbia University, emphasized another aspect of the hospital's value to the community: ". . . the indirect benefits accruing to the community from any well-equipped and well-managed hospital are perhaps even greater than the advantages that come to those who are treated there. It is not too much to say that, in our day, neither a physician nor a surgeon deserving the patronage of an intelligent people can be educated without the clinical privileges afforded by the hospitals. Precisely as a chemist is made, not by studying the textbook but by working in the laboratory, so a physician and a surgeon must be made by coming into actual contact with disease. That is why all the great medical schools of the world are to be found in large cities . . . and while it is true . . . that, at any given moment, only a small percentage of people need such care, it is also true that, sooner or later, everyone must have it."

Furthermore, said President Low, "Medical schools, with their sci-

entific laboratories, are constantly expanding the area of medical knowledge and, by their discoveries, are making their treatment of disease more and more efficient." He cited the progress being made in preventive medicine, then much in the public mind, and, as an example, praised Dr. Alfred Meyer of the Mount Sinai staff for his successful crusade for a state-supported tuberculosis hospital.

After Dr. Low's address, Isaac Wallach, the President of the Hospital, using a silver trowel the Ladies' Auxiliary had had made for the ceremony, cemented the cornerstone into place. He too, in his speech, emphasized the universal mission of the hospital: "We dedicate this building to the glory of God; we consecrate it to the service of man. We rear it for the distressed and suffering of all nationalities. May it raise its head high to proclaim the doctrine of universal brotherhood . . ."

After Mr. Lauterbach had reviewed the history of the Hospital, Dr. Jacobi spoke and answered, indirectly, those who had doubts about the need for expanding the Hospital's facilities by appealing directly to the "practical men" whose ideas dominated the spirit of the times. "I will tell you in a few words," said Dr. Jacobi, "of some of the points of view from which we doctors look upon a hospital. Ours is the vocation to relieve pain, remove or shorten disease, save lives. . . . Imagine the millions in wages, in profits, that are annually saved by a hospital that takes care of and restores to health thousands of working people. Such a success is most readily obtained in a hospital that commands many medical men, each with universal information and special training. . . .

". . . a hospital is a school for doctors who learn and profit in the interest of mankind from collected and collective experience. It is a school for nurses whose very existence was not dreamed of twenty-seven years ago . . . it is a school for the patients and their families . . . insofar as they are taught . . . of preventive and curative measures. Finally, it is a school for the medical world abroad through the scientific contributions emanating from the institution. . . ."

Mount Sinai had a tremendous job before it to meet the goals set by the speakers.

First, however, came the completion of the building. It was one of the most important pieces of construction then going on in New York; the estimated cost was $1,335,000. (Actual cost: $2,070,208.17, including the original contracts, later additions, wages for clerks and

watchmen, light, fuel and insurance.) Hospital architects were much interested in it, partly because it was planned in pavilions independent of one another and equipped separately for special purposes, rather than as a single unit. This plan appealed to those who were attempting to work out some idea of "functional" design, to take the place of the heavily ornamented, lightless, impractical piles of stone then in vogue. Architectural comment of the day reveals that the permanence of the building was also challenging; after the Civil War there had been much serious discussion of the desirability of constructing all hospitals as lightweight, airy frame buildings, which could be torn down or burned and replaced whenever necessary. (This was to get rid of the "infected air" which was supposed to make hospitals unfit for use, sooner or later. Increased understanding of sanitation, immunology, antisepsis and bacteriology outmoded this idea, which was originally a constructive one.)

In any case, when the new Mount Sinai buildings were opened for public inspection, on March 11, 1904, they were hailed as "a model of sanitary science." The New York *Times*, which gave the story almost a full column, emphasized the cleanliness of the buildings: ". . . there is an utter absence of sharp corners, or angles, thus minimizing dust accumulation and making cleansing easy. Another evidence of the care for cleanliness is in the number of porcelain bathtubs, these being ninety-six."

Other publications commented favorably on the outlets for electric lights at the heads of all beds, on the electric dumbwaiters connecting the ward pantries with the main kitchens, on the insect-proof marble and alberine used around the sinks, and on the foot-controlled sinks in the operating rooms. Because of the newly installed electricity, the Hospital's gas bill fell to $34.40 in April, 1904, from $324.60 in March—the last month spent at Lexington Avenue. The "high-speed" elevators, rising from the basement to allow easy access to all parts of the hospital, also were praised as much-needed conveniences. The *Architectural Record* was further impressed by the "humanitarian intent" of the builders of the hospital, evidenced by the fact that the ambulance entrance was sheltered from the street, and by the provision of examining rooms on every floor: "These examining rooms are an entirely new departure in hospital management. The patient who needs to have a painful wound dressed, or must undergo an examination, is removed from his bed, and taken to

an examining room where all sounds of distress are buried within four walls . . ."—comments which indirectly reveal much about the daily practice of medicine in 1904.

The main buildings fronted on 100th Street. In the middle of the block, between Fifth and Madison, and set back a little farther from the sidewalk than were the others, stood the Administration Building. On the northwest corner of Madison and 100th Street was the Out-Patient Department. North of this, fronting on Madison Avenue, was the Nurses' Training School. From east to west along 101st Street stood first, the Pathology Laboratory, endowed and equipped by Adolph Lewisohn, then the Isolation Pavilion, the Kitchen Building, and the Children's Pavilion (dedicated by Henry L. Einstein to the memory of his son Lewis). On Fifth Avenue stood the Private Pavilion, dedicated, by her children, to the memory of Barbara Guggenheim. Only the Isolation Building stood completely separate from the others; to it were transferred patients who developed contagious diseases after being admitted to the Hospital.

On the first floor of the Administration Building were reception and examining rooms. The entrance hall was dominated by an imposing marble staircase rising gracefully against the tall windows. In its basement were staff dining rooms, pantries, storerooms, and other utility rooms. On the second floor were the oak-paneled meeting room, sewing room and supply closet. A 200-seat synagogue filled much of the third floor which was shared by the superintendent for his living quarters.

The fifth floor of the Administration Building was devoted to remarkably well-thought-out operating rooms. The main operating room (dedicated by Benjamin Stern to the memory of his brother Bernard) was completely walled and finished in fine Italian marble—a note both of luxury and regard for sanitation. The marble-domed ceiling was twenty-seven feet above the floor, which was of vitreous tile. The room faced north; the huge windows had heaters installed between their double sashes to protect the patients from drafts. Two tiers of seats for students and observers looked down over the room; they were reached from above, to keep contamination from the operating area. (This also was unusual for a period during which observers at operations often crowded around the table still in their street clothes.) Four smaller operating rooms were also on this floor, as were anesthesia rooms, recovery rooms, sterilization space, a photo-

graphic darkroom and X-ray room, and what were then called "retiring rooms" for the surgeons.

West of the Administration Building was the Surgical Pavilion, with 154 beds divided among the male and female surgical wards, the Eye and Ear Department (nineteen beds), the Genito-Urinary ward, and the Gynecological ward. One twelve-bed ward had been dedicated to her parents' memory by Miss Rosie Bernheimer; the third floor contained the Joel Goldenberg ward, established by provision of Mr. Goldenberg's will, and the Isaac Blumenthal ward.

The Medical Pavilion, east of the Administration Building, contained 167 beds, divided among male and female wards, an Accident ward, a Neurological ward, a Dermatological ward, and a Tuberculosis Division. In its basement was a reception and admitting department with wards. On each floor were serving kitchens, equipped with what was then the most advanced housekeeping equipment: a gas range, a copper sink, a porcelain-lined refrigerator cooled with brine from the central refrigerating plant, a steam-heated plate warmer, an outlet for carbonated water (made in a special machine in each building), a coffee-grinder and an ice-cream maker. Food was brought to these kitchens on hot water-heated trucks from the central kitchen.

The Children's Pavilion held fifty-eight beds. Because of Mount Sinai's early interest in pediatrics, the Children's Pavilion had been equipped with imagination as well as scientific precision. The wards were as cheerful as possible with a view of Central Park, and there was play space for children who did not have to spend all their time in bed. On the roof of the Children's Pavilion were a nursery-solarium and a playground open to the sky. The protecting balustrade and parapet were especially designed to keep the children either from slipping through or falling over.

The Private Pavilion was the object of much curiosity in 1904. Hospitals until a comparatively short time previously had been supported by the well-to-do for the benefit of the poor. Anyone who could possibly afford to be treated at home—or even to have operations at home—did so. But, with the rapid developments of medical science around the turn of the century, physicians began to insist on hospital care for their private patients and the patients became increasingly willing to accept it.

The Private Pavilion, which replaced the eight or ten private rooms available on Lexington Avenue, was luxuriously comfortable. It

accommodated fifty-three patients and, in the words of the *Architectural Record*, "the well who wish to share the seclusion of their afflicted friends." Telephone bells were muffled; red discs outside the patients' doors dropped to signal to the nurses on duty. The Private Pavilion also had its own operating room and its own kitchens and other service quarters.

Like the other buildings, the Kitchen Building was open on all sides to light and air. It contained a special diet kitchen, a larger kitchen for the preparation of other food, pantries, storerooms, and so on. Above it were quarters for the domestic staff. The top floor was occupied by the Hospital laundry.

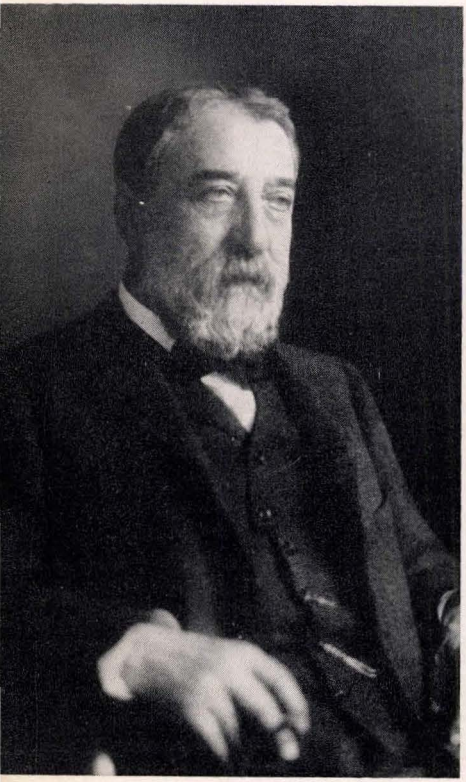
While the new hospital was being built, activity continued at the Lexington Avenue site. The immediate problem, once the 100th Street buildings neared completion, was to close down the Lexington Avenue hospital. It was decided, first, to use the period during which the actual moving would take place for House Staff vacations. No new patients, except those on the waiting list, were admitted after February 24, 1904. By February 28th, the number of patients in the Hospital had dropped to 140; it was expected that no more than thirty-five would remain to be transported to the new site. The Lexington Avenue Dispensary was closed on March 12th; the new one was opened March 21st. Meanwhile, staff doctors had treated Dispensary patients at their private offices, and the in-hospital patients (there were, actually, eighty-two instead of the expected thirty-five) were moved from the old Hospital to the new by ambulance.

While plans for the new Hospital were going forward, reports of medical activity at Lexington Avenue show how remarkably fast new medical developments were being adopted. The Hospital bought its first X-ray machine in 1900. In the same year, Dr. Howard Lilienthal reported from the Second Surgical Division that "A case of esophagotomy for foreign body was greatly facilitated and the patient's life probably saved by knowledge of the exact location of the object, a coin, rendered possible by the X-rays." (The patient was a two-and-one-half-year-old girl.)

In a report on the First Surgical Division, Dr. Gerster wrote: ". . . intravenous saline infusions have become more and more part of the routine treatment of the various forms of exhaustion the surgeon is called on to combat. We have never been able to ascribe to this form of stimulation any harmful consequences, and may state



Apparatus Used to Spray Carbolic Acid in Operating Rooms



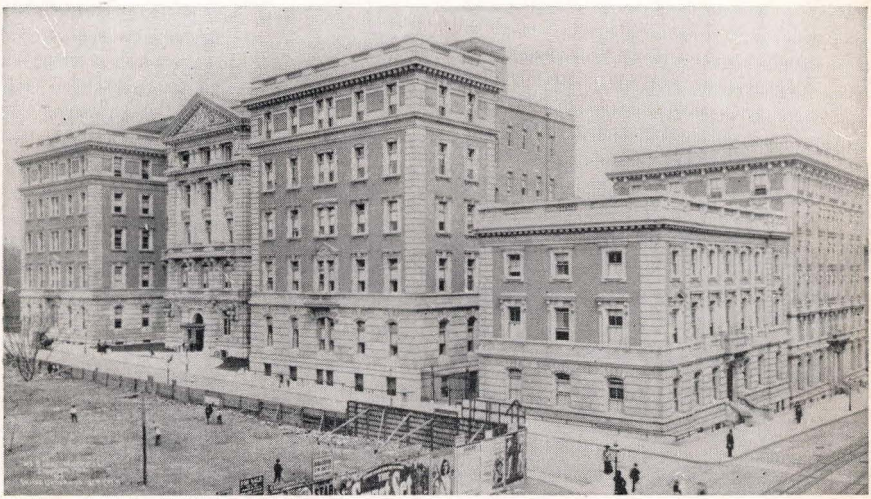
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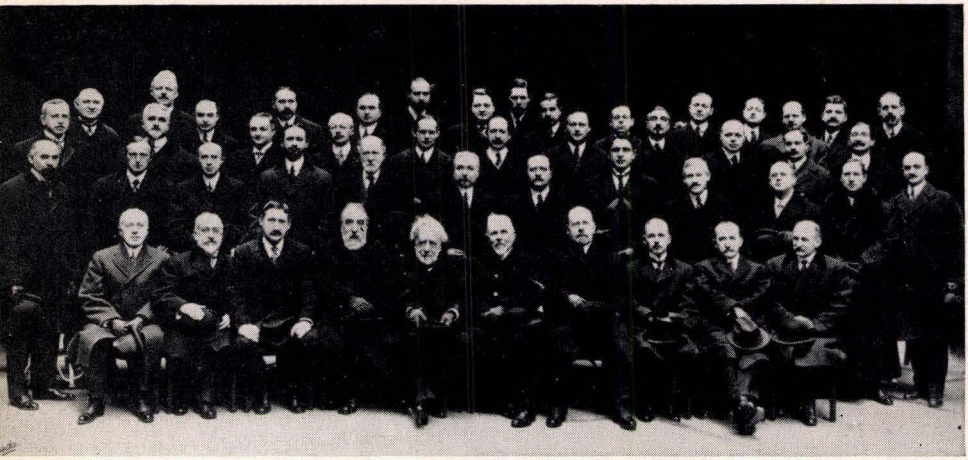
Dr. Edward G. Janeway



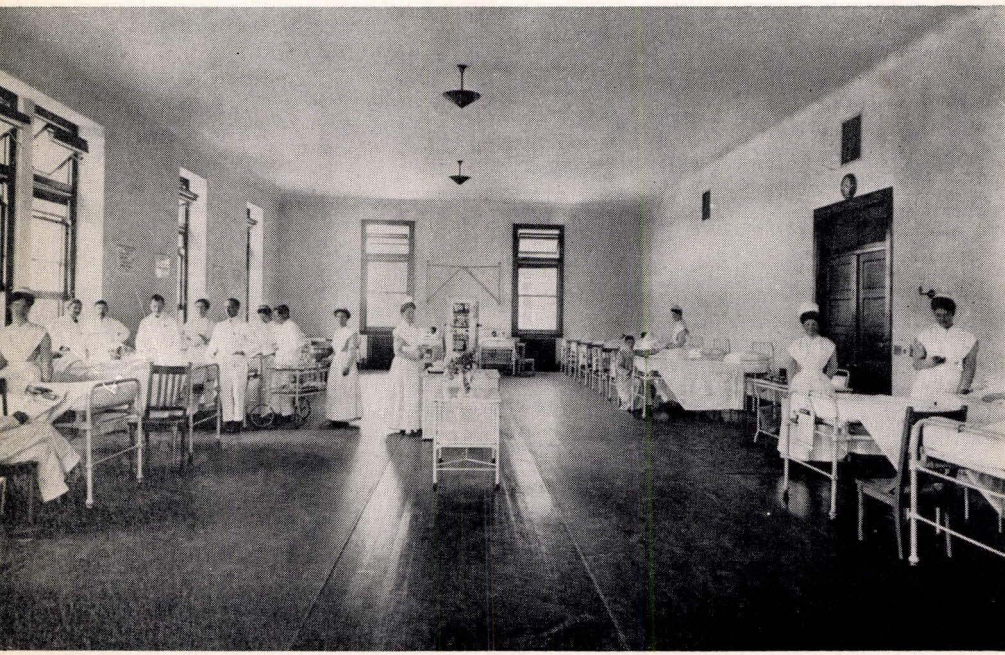
Dr. Paul F. Mundé



The New Hospital on Fifth Avenue, 1904



The Hospital Staff, 1914



Medical Ward in the New Hospital, 1906

positively that frequently the preservation of life was owing to its employment . . . especially . . . in increasing the resisting powers of debilitated patients to severe operations. . . ."

The details of Hospital housekeeping reflected in the last Annual Reports from the Lexington Avenue hospital point up many contrasts between the relative simplicity of nineteenth-century hospital operation and the complexity so soon to come.

In 1901, 3,145 patients had been treated; their average stay in the Hospital was 22.40 days. The per-capita food cost for patients and staff was 25.53 cents daily. Over-all daily cost of caring for patients was $1.52¾. The annual report issued in 1902 includes the Dispensary's listing of the nativity of its patients: 12,418 from Russia, 9,050 from the United States, 4,500 from Austria, and 2,300 from Germany. Nineteen other countries were represented, but there were only thirteen patients from the entire West Indies. In the year 1902, gifts to the Hospital included pencils and pen-holders, books and flowers, shirts, magazines, ten pounds of tobacco, six bottles of whiskey, six packages of lebkuchen, two gallons of whiskey from another donor, fifty pounds of talcum powder, four and two-thirds dozen nightshirts, 500 playing cards, apples, onions, potatoes, ice cream, forty four-ounce cans of ether, toys, a pair of crutches and fans for the patients' use in hot weather.

In the last Report from the Lexington Avenue hospital, the President, Isaac Wallach, reported a deficit of $8,429.53, which piled up in caring for 3,540 hospital patients and in giving 92,567 dispensary consultations. The total cost of caring for patients was $1.76¾ per day.

In the same Report, the President took official note of the changes being wrought in hospital needs and procedure by the scientific developments in medicine. He wrote: "Hospitals have scientific as well as benevolent purposes. The opportunities presented in institutions like ours have great value in preparing the medical fraternity for their service to the public. This important educational feature should not be lost sight of in the administration of hospitals.

"No hospital here or elsewhere affords more varied services or better facilities for the scientific treatment of its patients than ours. . . ."

To make good this promise, he noted that "Our new hospital, when opened, will have the following departments and divisions:

"General Medical Department—four divisions,
"General Surgical Department—two divisions,
"Gynecological Department—two divisions,
"One Ophthalmic and Aural Department,
"One Neurological Department,
"One Dermatological Department,
"Children's Department—One Surgical and One Medical Division,
"One Laryngological Department,
each in charge of a prominent chief and a staff of adjuncts.

"In addition to these, wards for accident cases, a service for tuberculosis patients and for convalescents, a Pathological Department equipped in accordance with modern ideas; complete services for Anesthesia and Radiography; Hydro-Therapeutics and accessories of every kind in keeping with the most advanced scientific developments of our age.

"Our dispensary provides services similar to those in the Hospital . . . each department is provided with a chief and a staff of assistants.

"Our District Service, in charge of nine physicians, is for the care of patients at their homes.

"Our House Staff, which has been increased, represents four divisions, two surgical and two medical, composed of a corps of twenty interns. . . ."

Wallach and the Board of Trustees who planned, organized and supervised the expansion of the Hospital and launched it on its contemporary career were an interesting group. Some of them were carrying on a family tradition of interest in Mount Sinai's affairs. Others were setting up their own traditions of service to the organization. Some were among the remarkable men of the time in the business world who confined their charitable interests solely to Mount Sinai; others were to become well known for the wide range of their philanthropy. The officers, besides Wallach, as President, were Isaac Stern and David Wile as Vice-Presidents; Elias Asiel as Treasurer; and Leo Arnstein, as Secretary. The Board members included Henry Gitterman, Simon Rothschild, Max Nathan, George Blumenthal, Herman Mendel, Edward Oppenheimer, Morris S. Barnet, Henry R. Ickelheimer, Meyer H. Lehman, Kalman Haas, Joseph F. Cullman, Joseph Fox, Adolph Lewisohn, Isaac N. Heidelberg, Emil S. Levi, Murry Guggenheim, Jefferson Seligman, Henry Morgenthau, James

Speyer, Louis M. Josephthal, Jacob Emsheimer, Hugo Blumenthal, Charles A. Wimpheimer and M. Samuel Stern.

Some of these men were to be associated with the Hospital for many years. Two—George Blumenthal and Leo Arnstein—were to have a profound personal influence on the character and direction of its development.

It was the President of the Board, Isaac Wallach, however, who best represented the transition from the nineteenth century to the twentieth. (A bronze bust of Wallach stands on the landing of the marble staircase in the entrance hall of the Administration Building.) His father had immigrated to the United States in 1842, before the great wave of immigration from Central Europe began, when his son Isaac was three years old. After a public-school education, the son went to work for his father in the cotton goods business; later, with his brother, he set up a cotton-converting business. In 1877, he was elected a director of the Hospital. Two years later, he became Vice-President, in 1896, President. He served until three months before his death in 1907.

Wallach was notably foresighted about the Hospital's interests, as well as devoted to its welfare. It was largely because of his astute handling of its financial affairs that the Hospital weathered so well the economic crisis that threatened to curtail the expansion plans severely. This was the crisis that began in 1901, when formation of U.S. Steel precipitated a financial panic, brought on drastic shortages, and forced steel construction prices higher than they had ever been. The great Northern Pacific panic (the "rich man's depression") followed, and close on its heels came another period of chaos on the markets. The Hospital's Report for 1901 notes simply that "The loss of funds and the shortage of supplies have changed the plans . . . and everything has been cut to the bone. . . ." Among the cuts were plans for six floors on all the buildings, roomier wards, ward laboratories, facilities for specialized beds, and a number of isolation rooms and examining rooms. Nonetheless, the main features of the plans were preserved.

From the viewpoint of hospital policy, it is significant that, in two Annual Reports separated in time by more than thirty years, Wallach should have stated three of the themes that were to dominate the development of the Hospital: research, education and social responsibility. Long before the turn of the century, he wrote: "The Hospital

must afford proper accommodations for pathological and microscopic research with a well-equipped laboratory, as necessary now in the hospital service as the operating room for the Surgical Department. . . . Benevolence furnishes the means and science the methods for the relief of suffering mankind. . . . United they cope against disease with force and good results. . . ."

In the last Report he wrote, only a short while before his death, Wallach said: "Society, in the more modern conception of its obligations, has banded together for the nurturing and education of the young, the reverent care of the aged, the relief of the sick, and the assistance and protection of the helpless and destitute.

"Imperative as is the call of each of these obligations, that of the care of the sick is, because of its broad and all-inclusive nature, the greatest. The sufferer may be among neither the aged or the helpless young, and may—nay, often is—an unfortunate, bowed down by the burden of poverty as well as by disease.

"Aside from this far-reaching influence in the sphere of charitable work, the Hospital, by giving to the breadwinner that greatest of all his resources—health—is an invaluable support to family life and no insignificant agent in the field of social work.

"Finally, from the educational opportunities and scientific stimulus it offers, the Hospital extends its influence throughout the world. Discoveries made in the remotest countries are freely and gladly transmitted to all scientists, to be used by them for the benefit of no one class of people, but for the help of all mankind. . . ."

After Wallach died, Isaac Stern, a Trustee since 1889 and Vice-President from 1896, served as President until 1910. In that year, George Blumenthal, who had been a Board member since 1892, was elected President. This remarkable man was a major force in the development of the Hospital from the time he first joined the Board until his retirement in 1938. His influence continued even afterward, when he was named President Emeritus, a title he held until his death in 1941.

Blumenthal was born in Frankfort-on-Main on April 7, 1858. He was trained in the Speyer & Company banking house there, and at twenty-four came to the United States to represent the Speyer organization in New York. In 1893, he became a partner in the banking house of Lazard Frères; from 1904 until his retirement from business in 1925 he was the senior partner in the firm.

Blumenthal represented a new kind of philanthropist. For him, charitable activities were not a simple individual matter. Rather, he recognized that large-scale giving, or the maintenance of private institutions designed to serve the public, like Mount Sinai Hospital, called for long-term planning and the application of methods and techniques borrowed from business.

Blumenthal was a brilliant banker. In business, as in philanthropy, he was hard-headed and imaginative, willing to take both the long chance and the long view. He was forthright and tough-minded, with, in the words of a man who knew him well, "an ebullient yet durable energy, great personal charm, a warm heart. . . . Essentially a man of action, he was impatient of needless delays. When there was a task to do, he wanted it done promptly. There were moments when he was brusque, but beneath his sharp and vibrant executive manner there was a warm and everlasting spring of tenderness. . . . He never relinquished the hope that through the advance of science all men might be enabled to share in the solid satisfactions of health, and he believed that all men should do so. . . ."

Another of his old friends said of him, at a testimonial dinner in his honor, "He seems on the surface sometimes to be hard and obdurate but he is only direct and straightforward, whether he agrees or differs. . . ." And at the same dinner, Dr. S. S. Goldwater, Mount Sinai's great director, said that anyone coming into prolonged contact with Blumenthal felt a mixture of "fear, of respect, of gratitude, of affection . . ." because of Blumenthal's absolutely fearless independence, "sound ethical principles, real humanitarianism, and genuine consideration and kindness for those around him." Blumenthal was often pessimistic and dismayed by the chaos of the society in which he lived. Yet he spent much of his fortune as if it were a public trust, and expected other wealthy men to do the same. He was also, on occasion, dramatically generous from his private pocket.

Dr. Goldwater, who worked closely with him for many years, wrote, "Unless I entirely misunderstand his point of view, it has always been his firm conviction that the care of the sick poor is the function of the state, not of the individual philanthropist, not of a voluntary association like the Mount Sinai Hospital." Later, Goldwater underlined the paradox: ". . . and yet his talents and his fortune have been devoted to the building up of that great institution

which, without his admirable leadership, would never have attained the position its occupies today. . . ."

Much of Blumenthal's talents and fortune went to worthy enterprises other than Mount Sinai. His conception of wealth as a public trust was not limited by any considerations of sectarianism. He was active in the American Red Cross, the Federation for the Support of Jewish Philanthropies, the United Hospital Fund, the American Hospital in Paris (of which he was President), the American Library in Paris, and the Paris Chamber of Commerce.

Blumenthal loved France; he was a founder of the American Foundation for French Life and Thought, a Grand Officer of the Legion of Honor and a generous patron of French hospitals and universities. For many years, he was President of the Metropolitan Museum of Art in New York; he was active in the development of The Cloisters. He gave many fine works of art and much money to the Museum even before his death, when his vast private collection passed to it. In art, he said he preferred works he could handle, because he considered the tactile sense extremely important to the connoisseur. Yet the best of his enormously varied collection consisted of brilliantly chosen early Italian masters.

Characteristically, one of his first major acts as a member of Mount Sinai's Board of Trustees initiated a new approach to hospital financing. Leo Arnstein, who succeeded Blumenthal in the Presidency, related the incident forty years after it happened as "typical of the man."

"It was just the year that he came on the Board of Trustees," wrote Arnstein, "that they were considering the erection of a new hospital. . . . Following along the paths which had been hewn before the Board . . . decided to go out and raise the money by selling bonds to members of the community, bonds which would, of course, pay interest until redeemed . . . after they had succeeded in selling some three or four hundred thousand dollars' worth of bonds, Mr. Blumenthal conceived the idea that people who were willing to take bonds for a purpose such as this would be equally willing to contribute the money without receiving anything in return.

"Well, he proposed this to the Board and he had on his hands what he loved above all things—a good fight. There were men there who were twice his age and had a great many times the amount of experience he had had in business affairs, and they all told him it

couldn't be done . . . and furthermore that it was impossible to go ahead with this plan because several hundred thousand dollars' worth of bonds had already been subscribed . . . [but] single-handed practically, he [Blumenthal] won the Board over to his way of thinking. He volunteered to go out himself and get back the bonds which had already been subscribed . . . and did it. And he thereby established what was practically a new technique in the raising of funds for philanthropic purposes."

Before the meeting adjourned, the Trustees, in typical Mount Sinai fashion, themselves had pledged a total of $140,000. Within four weeks $400,000 in cash was raised.

Beyond activity of this kind, and close attention to the problems of administration and staff, Blumenthal and his wife gave well over one million dollars to the Hospital.

To explain this and his years of hard work in the Hospital's behalf Blumenthal himself said, "I have a peculiar view of life, and I adhere to my opinion that whatever we do we do for more or less selfish reasons; and if we try to do what people consider good, what people consider beneficial for others, we do it for the pleasure we get out of it. Mount Sinai Hospital to me has been a source of continuous pleasure. . . . And if, incidentally, my selfishness has done good, so much the better for others and for myself."

10

The Staff and the Laboratories

ONE REASON MOUNT SINAI REACHED ITS PRE-EMINENCE AS AN INSTITUtion was because of the extraordinarily high quality of its staff. During the years 1904 to 1913, it included, in its senior divisions, a number of men of great reputation both in the United States and abroad, especially in surgery and in the rapidly growing clinical laboratories. Members of the junior staff, and even of the house staff, working under these men were soon to become leaders of American medicine in their own right. In the hospital laboratories—a field in which Mount Sinai pioneered—men were working who would become equally renowned in research medicine.

Many of these doctors were personally remarkable as well as professionally distinguished—men whose intelligence and curiosity were not limited by the bounds of their own fields. Some were forceful, brilliant, cultivated, scholarly; they included distinguished amateurs in music and art, bibliophiles and collectors of the first rank, students of philosophy and medical history. Some were very much in the tradition of the autocratic German *geheimrats* under whom they had studied in Germany and Austria; a few had lived much of their lives there. Others were urbane gentlemen, witty *bons vivants* as clever in the drawing room as they were serious in the clinic. To a large extent also, the Mount Sinai staff of the early years of the twentieth century, because of its international character, did much to bring the medical cultures of Europe and the United States closer together.

In any case, however varying their personal characteristics, these men in the course of their daily work under one roof created an intellectual climate that determined the character of the Hospital. In it were combined, without paradox, elements of scholarship and practicality, charity and competition, "pure" research and practical therapeutics. The diverse elements of this working atmosphere were unified by an intense and creative intellectuality: an interest in learning equally for its own sake and for the uses to which it could be put.

It was primarily this last element, which pervaded the whole Hospital, that created Mount Sinai's clinical attitude—an attitude which it shares with other great hospitals. The Hospital's first neurologist, Bernard Sachs, summarized it well in describing his own attitude toward his service. "The chief aims," he wrote, "should be the considerate treatment of the patient . . . the training of an adequate House Staff, and . . . the development of . . . able assistants and associates who would . . . contribute materially to the advancement of neurologic science. . . . While I was deeply interested in new procedures and laboratory methods, the guiding principle was that bedside observation was of the greatest importance . . . that laboratory methods might be considered supplemental and corrective . . . but cannot displace clinical observations. . . ."

Sachs himself was one of those who make the pre-First World War staff memorable. The service he headed made the Hospital one of the very few places where doctors could treat and study acute neurological illnesses (the Montefiore Home, on whose staff Sachs had served since 1897, took care of chronic cases, but Columbia's Neurological Institute did not yet exist).

As a practitioner, Sachs was an imaginative conservative, fully aware of the newest physiological and anatomical experimentation on the brain and nervous system, but constantly cautioning against theories that went too far beyond known clinical limits: "We see what we find 'there,' " he wrote, "to discuss and work with, and do not discuss what does not belong to the issue. . . ." Although he worked in an era when "systems" and "classifications" seemed to interest some neurologists and psychiatrists more than their patients, he consistently opposed this trend. He was, for instance, in his position as an editor of the *Journal of Nervous and Mental Diseases*, one of the first to oppose the facile diagnosis of "dementia praecox" which resulted from the too-rigid application of Kraepelin's diagnostic system. As a

neurologist interested in psychiatry, he took the same attitude toward Freudian psychology when it was first announced. He objected to "the indiscriminate note of exclusive salvation of the Freudian doctrine . . . and indeed to the very fundamentals of it."

Arpad Gerster came to the new Hospital as one of its chief surgeons and chairman of the Executive Committee of the Medical Board. Like all the surgeons of his generation, Gerster did general work. He pioneered, however, in surgery for epilepsy, and was much interested in the newer surgical methods developing after the turn of the century. The range of his surgical interests and the force of his influence may be judged by the later development of his adjuncts, the first of whom was Howard Lilienthal, who was Gerster's assistant in his private practice. After Lilienthal came A. A. Berg, who also worked with Gerster in his private practice, and Alexis V. Moschowitz. (Lilienthal later became head of the second surgical division; two of the first adjuncts in that division were Charles Elsberg and Joseph Weiner.)

If Gerster represented the best of the nineteenth-century surgeons, his long-time assistant, Howard Lilienthal, represents the first generation in modern surgery. Lilienthal was both versatile and volatile. He was born in 1861 in Albany. He attended Harvard (where he sang in choruses to help pay his expenses and is said to have sung at Longfellow's funeral) and later took his medical degree at Harvard Medical School.

He placed first in the competition for an internship at Mount Sinai, and after graduating from the House Staff spent eight years as Gerster's assistant in private practice. During this time, he invented a collapsible operating table which could be carried from house to house—the first of a number of practical innovations which were to include a bullet probe and a bullet forceps developed during his service in the First World War.

Although Lilienthal's career began in general surgery, he soon became interested in the new surgery of the genito-urinary tract. From that, he went to surgery of the chest. It is on his brilliant performance in this field that his reputation is based. In fact, he was one of the founders of this surgical specialty in the United States.

Among Lilienthal's other achievements was the first considerable number of successful lobectomies for bronchiectasis, which he performed in spite of severe criticism, because he was convinced that a

combination of good surgery and a good operative risk would establish the operation as a valuable one. He originated, or improved on, a number of other operative procedures, including an operation for cancer of the esophagus; he published, in 1925, a monumental treatise on thoracic surgery—the first American book on the subject.

Outside of medicine, Lilienthal's interests were many; he loved sports, dogs, art and music; he amused the sick and frightened children he met on his ward rounds by drawing funny pictures for them. (After his retirement, he took to writing nature stories for children which were widely published.) He was courageous, self-reliant and independent, and sometimes a touch truculent and sharp in discussion if he thought the work being presented was careless or inaccurate. He talked a steady stream during his operations and sometimes, at medical meetings, drew illustrations for his remarks with both hands at once.

Lilienthal's pioneering work and Mount Sinai's position of leadership in thoracic surgery were maintained and carried forward by his successor, Dr. Harold Neuhof, whose special interest was lung abscesses.

Another influential and forward-looking surgeon, before the First World War, was Charles Elsberg, who was one of the first neurosurgeons. He was a shy and reticent man, an excellent teacher, ingenious and clever in devising instruments to make surgery both more precise and simpler. Elsberg was one of the first graduates of the intern staff of the Hospital to go abroad to study the developing basic medical sciences. He studied pathology and the laboratory techniques a modern pathologist had to know; on his return he set up the first rudimentary pathology laboratory in the Lexington Avenue Hospital. (Laboratory services until about 1895 had consisted of a few casual blood and urine tests.) He did some work in the experimental surgery of the heart, and later in his career developed what was probably the first practical machine for administration of intratracheal anesthesia.

As Elsberg became increasingly interested in neurosurgery as such, he developed great expertness in dealing with tumors of the spinal cord. A sound man on fundamentals, he emphasized the importance of localizing the tumor as precisely as possible, and had an outstanding reputation in this very special field as early as 1911.

In ophthalmology, after the colorful Gruening became a member

of the consulting staff, were Carl Koller and Charles May, both distinguished contributors to their specialty. Koller, a precise, meticulous surgeon, developed an operation for squint based on mathematical calculations of the problems involved that was well in advance of its time. According to a contemporary, Koller "stimulated the idea of considering the condition of the eye in relation to the condition of the body as a whole."

May, one of the first outstanding staff members to have taken most of his training in the United States, spent his internship at Mount Sinai. He published, in 1900, the first edition of his *Manual of Diseases of the Eye*, which went through eighteen editions before his death in 1943 and became one of the most widely translated and used textbooks in the medical world. In 1900, May also introduced an electric ophthalmoscope based on a new principle of illumination, and far superior to any then in use. He incorporated in it a solid prism reflector instead of a mirror, and a condensing lens for even illumination of the fundus.

Another early specialist who was also a prolific inventor was the laryngologist, Sidney Yankauer. Very early in his career, he devised an efficient mask for ether anesthesia. Later, he invented many devices that were of great help in establishing his specialty on a sound footing, including: special bronchoscopic tubes and forceps, irrigating tubes for the bronchi and esophagus, radium carriers for esophagus and larynx, special tonsillectomy instruments, instruments for intranasal operations, for examination, treatment, and curettage of the Eustachian tube, and a suction-and-pressure anesthesia pump.

In 1905, Yankauer performed the first successful bronchoscopy for removal of a foreign body that had ever been done in New York. The patient was a ten-month-old infant who had swallowed an orange pit and was, when brought to Yankauer, slowly suffocating. Because it was impossible to reach the orange pit with standard instruments, Yankauer performed a tracheotomy, introduced a bronchoscope, and successfully removed the seed.

Yankauer's imaginative and accurate approach to the diseases of the upper respiratory tract established the value of bronchoscopy in diagnosis; he also pioneered in bronchoscopic treatment of lung abscess, in treatment by endoscopy of malignant diseases of the respiratory tract and the esophagus, in suspension laryngoscopy, and

in the medical and surgical treatment of the diseases of nose, sinus and throat.

Another staff member who was a careful technician as well as a good physician was Leopold Jaches, Mount Sinai's first radiologist. Jaches, born in Russia, won a law degree before he turned to medicine. He took his medical degree in the United States, then learned his specialty in Hamburg after a period of teaching at Cornell; in 1908 he was named head of roentgenology at Mount Sinai. He held the position thirty years.

Jaches was outstandingly cautious—an attitude then much needed among those who dealt with X-rays because they were so little understood. Jaches, however, had great respect for the invisible radiation with which he worked; at his insistence, for example, Mount Sinai was one of the first hospitals in the country to make its equipment electrically shock proof. Jaches also, with Abraham Hyman, was the first in New York to do X-ray pyelography. With Harry Wessler, he wrote *Clinical Roentgenology of the Chest*, which for many years was a standard American text.

In gynecology during the Hospital's early years on 100th Street was Hiram Vineberg, who shared the gynecology service with Brettauer from 1916 to 1921. Vineberg, small, lively and self-confident, was born in Russia and grew up in the Canadian backwoods. He earned enough money to pay for his medical education by running his own country store from the time he was fourteen until he was eighteen. After he got his degree from McGill, he spent six years wandering around the world—first to London, where he worked briefly in the hospitals, then to New Zealand in a sailing vessel as a ship's surgeon, then to Hawaii, where he treated Princess Liliuokalani, then to the northwestern Canadian frontier, and finally for gynecological study to Berlin, Prague and Vienna.

As a surgeon, Vineberg was conservative and conscientious to an outstanding degree. He was very much opposed to the rather widespread contemporary practice of performing radical operations on women's pelvic organs without any attempt to preserve their reproductive function, and wrote strongly in defense of his own practice of saving as much tissue as could possibly be salvaged. He was also expert in gynecological pathology, especially in cases of chorioepithelioma and ectopic pregnancy.

Equally outstanding men were in active service on the medical side

of the Hospital. One was Nathan E. Brill, who combined a clinical astuteness still vividly remembered with outstanding ability in the laboratory. His early training, however, had been received before the days of clinical laboratories; instead of the latest techniques, he brought to all his research a knowledge of disease acquired in the wards rather than through the microscope. His medical interests were varied; they included neurology, in which he was expert on the comparative anatomy of the nervous system, medical literature, medical jurisprudence and internal medicine. His name is most permanently associated, however, with his work on the disease named after him, which began as an acute clinical observation and developed into an international adventure.

In 1896, when Widal's reaction was first being used as a diagnostic test for typhoid fever, Brill saw a number of patients whose blood reacted negatively to this test, and in whom no typhoid bacillus could be found. During the next sixteen years, Brill tracked down and studied 221 cases of this as yet unidentified disease. In 1910, he described it so vividly and completely that it was given the name "Brill's Disease." Later work showed that it was a form of endemic typhus.

Before this fact could be established, and in a search for the cause of the disease, Mount Sinai investigators, working with physicians from Harvard, Bellevue and other New York hospitals and the United States Public Health Service, conducted a series of reinvestigations of Brill's original observations. Two international expeditions were undertaken by men who had been closely connected with the work from the beginning. One was Dr. George Baehr, who was Associate in Pathology when the work began. Another was Dr. Peter Olitzky, who later joined the Rockefeller Institute. A third was Dr. Harry Plotz. Baehr and Plotz went to Serbia and elsewhere in Eastern Europe as members of the Strong Memorial Commission. Olitzky's expedition, partly sponsored by the Hospital, went to Mexico.

Meanwhile, Howard Taylor Ricketts and Russell M. Wilder had discovered the organisms called rickettsiae. In Mexico, it was established that a rickettsia was the true cause of the disease.

Brill was also much interested in diseases of the blood. With Frederick S. Mandlebaum and Emanuel Libman of the laboratory staff, he conducted an outstanding investigation of a peculiar disease afflicting the spleen—primary large-cell splenomegaly, or Gaucher's

Disease. But, for all his interest in the laboratory, Brill remained a practicing physician. His contemporaries considered him an outstanding diagnostician; he believed that the patient was "the chief object of interest and that the diagnosis can and should be made at the bedside. . . ."

Julius Rudisch was another of the older generation whose interests were divided between the clinic and the laboratory, although his preference was openly given to the latter. Rudisch, like Brill, was trained before the days of clinical laboratories. He got his medical degree at Heidelberg, and shortly thereafter emigrated to the United States where he began to practice in Woodside, Long Island. He was a friend of Jacobi, and through him joined the Mount Sinai staff in 1875; he served for thirty-four years. Among his assistants in private practice were Charles Elsberg, Emanuel Libman and the neurologist Israel Strauss.

Rudisch, reticent with his colleagues and quietly firm with his patients, was much interested in diabetes. He published a number of papers about methods he had devised for detecting sugar in the urine —a problem he approached as much from the chemical as from the medical viewpoint. In fact, Rudisch was fascinated by the chemistry of medicine. He had been one of the first to practice disinfecting water with chlorine, although he published nothing about his experiments. He was also interested in physics and electricity—in the judgment of his contemporaries, "a pioneer in that trend of internal medicine which now dominates it," and confessed himself somewhat frustrated by the very real limitations of clinical medicine in his day. After his retirement, he studied chemistry for several years in Europe, and spent the last years of his life studying soil chemistry in California and Pennsylvania.

However limited other laboratory-minded physicians might have felt because of their lack of scientific resources, there was an active trend under way that would soon improve the situation. This was the development of research medicine in all branches—a development that was the more promising because laboratory and clinic were, at the same time, moving closer together.

Mount Sinai took part in this movement to a much greater extent than did many other American hospitals, and especially those not connected with university medical schools. Although its Pathology Department had been in existence since 1893, when Dr. Henry N.

Heineman was appointed Pathologist, research—even clinical testing —had been handicapped by the cramped quarters on Lexington Avenue. In the new and well-equipped building at the uptown site, however, much expansion of the research program was possible.

The Pathology Department as such is mentioned for the first time in the Annual Report for 1906 (previously, it had been grouped with the "administrative departments"). In that year, the President noted, "This valuable branch of our medical organization is increasing in usefulness, and deservedly in its renown for important contributions to scientific development." The staff at that time included Frederick S. Mandlebaum, Pathologist; Emanuel Libman, Assistant Pathologist; and a second assistant, a laboratory assistant, an intern in pathology, and a physiological chemist and assistant.

In the Report covering the year 1907, there were in the department fifteen staff members, besides Mandlebaum and Libman. They were engaged not only in routine clinical testing, but in "active research work in . . . higher problems of modern medicine." That year was the first in which Mount Sinai displayed a scientific exhibit at a major medical meeting (the American Medical Association's annual convention), and also saw the creation of the George Blumenthal, Jr., research fellowship in pathology.

Every member of the staff of the Pathology Department, according to the President's Report for the year 1908, "is encouraged to undertake research . . . [especially on] problems of direct importance in diagnosis and treatment. . . ." The department's routine functions included "bacteriological examinations of tumors and other tissues to aid in the work of the surgeon . . . large numbers of throat cultures to prevent . . . diphtheria epidemics in the Hospital; and examination of the blood in suspected cases of typhoid fever, aggregating at least 2,000 tests a year. . . . During the past year, new and valuable methods have been introduced to facilitate the early diagnosis of diphtheria and typhoid fever. . . ."

The emphasis on the clinical value of experimental work was typical of Mount Sinai. So was the emphasis on pathology, rather than on other lines of investigation. There were a number of reasons for this. First, laboratories were not yet accepted as an unquestioned part of a hospital organization; laboratory results were not looked on as more reliable or more informative than bedside observations. There was some understandable skepticism among the Hospital's officers

and staff about exactly how well the innovation of a hospital laboratory operating on a large scale would work out. The doubt most frequently expressed was that the laboratory would continue to interest itself in problems of clinical importance, rather than in investigations which might produce interesting results without special medical application.

A second reason was probably more important. Enough of the Mount Sinai staff members had been trained in European pathology centers during the years when pathology was establishing itself as the keystone of the medical sciences to feel keenly the virtually complete lack of American interest in the science. They agreed with the motto carved on the wall of a pathology amphitheatre in Paris: "Here is the seat where death triumphs to support life." They argued that "If it is the aim of medicine to understand disease, its efforts must be founded on something more exact than vague and shifting symptoms in living patients—something more permanent, more observable, more precise. This 'something' is the changes in the tissues or organization of the body produced by disease and observed at autopsy." So important was accurate pathology felt to be that the first Clinical Pathological Conference at the Hospital was addressed by Sir William Osler.

A third, and telling, reason was that the early research staff was composed almost entirely of physicians who would have a natural interest in work bearing directly on disease.

Nevertheless, the pathology-minded physicians were powerfully reinforced by the first chemistry department in any New York hospital, and one of the first in the country. This department was headed by Samuel Bookman, whose official title was Associate in Physiological Chemistry. Bookman's appointment (in 1902) had come about through the efforts of farsighted Frederick Mandlebaum, Chief of the Pathology Laboratories. Bookman had studied in the United States, and took his Ph.D. from Berlin, working under Gabriel in Emil Fischer's research institute. Even after he had already established his own reputation, Bookman returned several times to Berlin for special studies in fields he thought would be valuable to the hospital. (Bookman, although he might be considered a full-time staff member, received no salary from the hospital; his income was derived from successful business operations.)

It was at least partly through Bookman's personal influence—he was genial, cheerful and devoted to his work, as well as meticulous and

precise in performing it—that a group of chemically-minded physicians became very active in the Mount Sinai laboratories. The result of this activity was a series of fundamental studies of body chemistry in health and disease which were of great importance; much was learned about the metabolic diseases, which are essentially chemical in character. With Dr. Albert A. Epstein, Bookman studied protein metabolism, and they developed, through their study of hippuric acid, a liver-function test which was of real clinical use. Bookman and Epstein also worked on lipoid nephrosis; Epstein described a chronic kidney ailment still called by his name.

Epstein, in his study of liver and kidney diseases, emphasized two of their characteristics that became basic to their study and treatment. One was hypoproteinemia (lowering of the protein content of the blood serum) and the other the loss of albumin through the kidneys.

Another of the physicians who worked in the laboratory in order to learn surgical pathology was Leo Buerger. Buerger served his internship at Lenox Hill; at Mount Sinai he worked under Mandlebaum in surgical pathology and also carried on a good deal of independent investigation. He had a remarkably original mind and a great capacity for work. In the Mount Sinai laboratory he first observed a disease of the blood vessel walls which he named thromboangiitis obliterans. This condition occurred most commonly, he thought at first, in people born in Central Europe. It could, however, be found in people of almost any ethnic background who are addicted to tobacco; smoking, not racial or ethnic origin, was the key to it. The idea that this was a disease limited almost exclusively to Russian or Polish Jews was exploded as soon as the fundamental concept of Buerger's disease became better understood. As physicians throughout the country learned to recognize the disease clinically and to diagnose it pathologically by examination of the diseased blood vessels, it became apparent that the disease was not rare but had been generally overlooked. It was very often wrongly classified as arteriosclerosis of the vessels of the legs and arms. When doctors were able to distinguish Buerger's Disease from arteriosclerotic diseases of the vessels of the extremities, it was clear that it occurred in all races.

Buerger's ability as a surgeon and scientific investigator was underlined when he entered the field of genito-urinary surgery. He modified the Brown cystoscope, one of the early American cystoscopes, and

made its use more practical and feasible. To do this, he made a study of the physics of light and optics, designed a new optical system for the cystoscope, and then applied it in a practical instrument.

At the head of the laboratories from 1895 to 1926 was Mandlebaum, a brilliant student who had led his class in medical school and, after an internship at Mount Sinai, studied pathology with Virchow in Vienna and bacteriology with Koch in Berlin. He worked for a time in Ehrlich's laboratory before he took over the cluttered little laboratory room in the Lexington Avenue building, where staff members dropped in as much to watch the fire horses being exercised across the street as to learn about pathology.

Mandlebaum was meticulous about everything he did; his forte was diagnosis from surgical specimens. In those days, surgeons were in the habit of making table-side diagnoses in cases of suspected malignancy, as in tumors of the breast. Mandlebaum, however, very soon impressed the surgeons on the Mount Sinai staff with his accuracy and acumen in making such diagnoses in the laboratory. Howard Lilienthal later said the surgeons came to prefer to wait "a day or two" for Mandlebaum's report on a specimen. Mandlebaum also did extremely good work on bladder tumors and devised an original method of finding tumor cells in fluid exudate.

A learned musician, Mandlebaum played the violin, especially in quartettes, with professional skill, and the piano almost as well; he was even able to tune big pipe organs. His patience and feeling for detail were legendary even in his own time. Some of his stained specimens were prized as objects of art by his colleagues. When he was asked to plan the equipment for the laboratory building on 100th Street, he delayed his report for months, to the open annoyance of the officers in charge of the building plans. When Mandlebaum's plans were ready at last, however, they found he had drawn every single piece of equipment to scale, in the exact place it was to occupy on the floor, and had even specified the particular sort of acid-resisting paint to be used on laboratory tables.

Because Mandlebaum had a marked allergy to formalin, he could not perform a good deal of the autopsy work that is so important a part of pathology. During the years before the First World War, this part of the laboratory's activity was handled by Emanuel Libman, a man of remarkable force and energy, one of the best-known physicians

of his generation, who had a deep and lasting influence on the development of medicine at Mount Sinai and elsewhere.

Libman, son of a prosperous middle-class family, was born in New York. He got his M.D. from the College of Physicians and Surgeons, and went to Mount Sinai as House Physician in 1896. He was much influenced by Jacobi and Koplik; he determined, after his internship, to become a pediatrician. Koplik persuaded him to go abroad to study developments in pediatrics, pathology and bacteriology, which Libman did. He studied in Vienna, Graz, Munich and Prague, and observed in other laboratories at which he did not study. Libman capitalized on this and other trips by maintaining a running correspondence with Europeon figures in medicine. Thus he began to build up the enormous acquaintanceship that was to be one of his chief assets as a member of the Mount Sinai staff and as a medical figure. His contemporaries generally agreed that, through him, the Hospital strengthened its contacts with the great centers of learning in England and France and Germany, and in this country.

Before this fact became obvious, as it eventually did, especially in the Hospital's educational program, Libman was laying the foundation for his remarkable career as a consulting diagnostician and as a pathologist especially interested in bacteriology. In 1897, working in Theodor Escherich's Vienna laboratory, he had found a streptococcus responsible for streptococcal enteritis in infants. When he came back to work at Mount Sinai, he pushed his interest in clinical bacteriology to the point at which Mount Sinai's bacteriological laboratory was to become one of the country's best.

Libman's name is permanently identified with the heart disease, subacute bacterial endocarditis, on which he became the country's outstanding authority. Libman's lifelong friend, the great William H. Welch of Johns Hopkins, said of Libman's studies of this disease that they embraced ". . . every aspect of the disease—bacteriological, etiological, pathological, clinical and preventive . . ." and that they "doubtless represent the high-water mark of his research activities and furnish a good example of his command of technique and of his powers of keen observation, critical analysis, and sound inference. . . ." And, Welch continued, "Libman's and his co-workers' studies . . . embrace all forms of cardiac disease and abnormality. . . . So numerous, original, comprehensive and important have been the studies of the heart emanating from the wards and laboratories

of Mount Sinai Hospital that I think one can correctly speak of the Mount Sinai school of cardiologists, of which Libman was the founder and guiding spirit."

Libman's medical interests were not confined to diseases of the heart nor to the pathology laboratory. Rather, they ranged over virtually all of medicine. Even those who disliked his brusque eccentricities admitted that his store of information was phenomenal, his memory colossal, his diagnostic ability rare. He also had an unusual gift for stimulating those with whom he worked and encouraging work of promise. Expert as he was in the laboratory, the basis of his approach to medicine was the patient. His examinations were dazzlingly fast and quite unorthodox; he claimed to be able to smell certain diseases. Toward the end of his career he startled many of his patients (and infuriated others) by jabbing them without warning in the mastoid region to determine their sensitivity to pain. His theory was that people with varying pain thresholds react differently to the onslaught of disease; the pain threshhold, therefore, was a factor to be considered in both diagnosis and treatment. Libman remained on the staff at Mount Sinai in various capacities until his death in 1946.

A good part of Libman's influence at Mount Sinai was felt indirectly—not so much in the clinics or laboratories as through his interest in training and education. He was, in fact, one of the country's leaders in these fields, and especially on the postgraduate level. He believed that medical education should continue throughout life, and bent most of his efforts toward physicians who already held degrees.

It was through his initiative that the Committee on Medical Instruction was established at the Hospital. He was active on the Committee on Medical Education of the New York Academy of Medicine and, in 1931, launched the Academy's Graduate Fortnights. He was also instrumental in establishing the Janeway and Welch lectureships at Mount Sinai, the Noguchi lectures at Johns Hopkins, and the Rolleston lectures at the Royal College of Physicians in London. He devoted much time and effort to the establishment of the Hebrew University in Israel. After his death, his friends established the Libman Fellowships in his memory.

Medical education in the early days of this century was somewhat haphazard, once the prescribed years at medical school were over. Not all young physicians served internships, and those who did some-

times found that any benefits they might derive from their post-graduate period would be entirely of their own making because the older staff members felt no particular obligation to help them learn.

This situation began to change coincidentally with the development of the laboratory approach to medicine. At Mount Sinai, it was also coincidental with the growth of the Hospital and the recognition by the clinical chiefs that the new demands of science made it necessary for them to concentrate on the training of their juniors.

The Board of Trustees also recognized the new situation. The Annual Report for the year 1906 notes the change in sentiment about using patients as research and educational material: "Twenty-five or thirty years ago . . . it was regarded as heresy. . . . Not so now. It is well understood that the Hospital must furnish the facilities and opportunities for education, research and experience. . . ."

But Mount Sinai, a large and busy general hospital without a medical school connection, staffed by men whose practices outside the hospital were quite as demanding as their work in it, was in no position to turn itself overnight into a purely educational institution. Nor was this the object of its officers and staff.

They were interested in improving the general level of medical education and of medical care, true; but they were primarily interested in improving their own Hospital's service and in training their own men. Eventually they attacked the problem in two ways—in both of which, it should be noted, they were helped by the fact that, within the Hospital, one or more of the chiefs of service was consistently a man of international or national fame. Furthermore, the directors were sufficiently imaginative and generous to supply the money for intellectual expansion as well as for physical improvements.

The first step was imaginative and effective. Ever since the house-staff system had been inaugurated at Mount Sinai, the candidates for internships had been very carefully screened. The Hospital had been very fortunate in selecting a consistently talented group of young physicians. Thus the senior staff determined to select the best graduates of the house staff, train them for a year or longer in Mount Sinai's own laboratories, then send them elsewhere for intensive training along specialized lines, both in the United States and abroad. This program was implemented, largely, by fellowships set up by Board members.

When the training period was over, the men returned to the Hos-

pital and worked in the laboratories at the same time that they served on the clinical staff. Men were chosen deliberately because they showed unusual promise along particular lines; the idea was that with extra training, their promise would be fulfilled, to their own benefit and that of the Hospital. Among others so trained were Alfred Cohn, Israel Strauss, Albert Epstein, George Baehr and Reuben Ottenberg —all of whom have long since established themselves in the top rank of American medicine.

Much of this kind of activity was necessarily carried out on a fairly informal basis. But in 1908 more formal steps were taken. The Annual Report notes that ". . . to extend the usefulness of the Hospital for . . . medical education, conferences have been held with . . . various medical schools in this city for . . . opening our wards to their students for clinical instruction. . . ." In the following year, students from Bellevue and the Columbia College of Physicians and Surgeons were admitted. Arpad Gerster was appointed Professor of Clinical Surgery, Nathan Brill and Libman Professors of Clinical Medicine and A. A. Berg as Associate in Surgery on the faculty of the College of Physicians and Surgeons.

Meanwhile, the Hospital's intramural education program had been developed far beyond its simple beginnings.

The first internships on Lexington Avenue had been in straight surgery and straight medicine for a period of two years. The clinical services of the Hospital at that period were broken up into the four major divisions of medicine, surgery, pediatrics and gynecology. Training outside the formal divisions of medicine and surgery was customarily obtained in "apprenticeships" to established specialists in clinical practice, not in the Hospital. Specialties were represented in the Hospital by specialists who, in fact, were consultants, and who did not always have hospital beds for their patients.

By the time the Hospital moved to 100th Street, a number of specialties in medicine were already quite highly developed. Many of them had bed services on the wards. The internship training program was therefore radically revised. By 1908, internships covered two and one-half years of service. Surgical internships included a period of service on each of the surgical specialties. In medicine, internships included a period of training on each of the medical specialties. However, six months of the surgical internship were spent on the medical wards, and six months of the medical internship on

the surgical wards. The surgical internship ended with six months as House Surgeon and the medical internship ended similarly as House Physician. Interns were appointed each year, following a competitive examination in which often a hundred or one hundred fifty of the best students from the medical schools throughout the country competed. The examinations consisted, first of a difficult written examination; those who survived the written examination had to pass an oral examination given by three or more of the senior surgeons and physicians of the Hospital, each of whom examined the candidates individually.

In addition to the regular two-and-a-half-year internships leading to the positions of House Surgeon or House Physician, there were a number of two-year positions which were more of a rotating character, although they were still predominantly either surgical or medical. These positions were given to men who did not rate among the first eight in the examination. Earlier, there were a number of one-year positions, rotating six months on the medical side and six on the surgical. The one-year men did not live in the Hospital; they were known as "externes." All the "regular" two-and-a-half-year interns, both surgical and medical, spent at least six months in the private pavilion.

11

Development of Administrative and Social Services

COINCIDENTAL WITH ITS MOVE TO THE FRONT RANKS AS A CLINICAL AND scientific institution, Mount Sinai was achieving pre-eminence in what was a completely new field: hospital administration. This was almost entirely because of the presence on its staff of one of the most influential figures yet produced in American medicine: Dr. S. S. Goldwater. Goldwater was the first professional medical administrator in the United States. More than that, his career created a new medical specialty; the administrative practices and ideas of a whole medical generation stemmed from his work. By the time his career reached its close, it was plain that Goldwater had influenced the development of contemporary hospital practice and thought more than any other man of his time.

Goldwater's name is permanently associated with Mount Sinai, although he spent a good many years of his life in public service or as a consultant to other hospitals. His influence spread through his training of other men, through his prolific writing, through the numerous social and government agencies with which his liaison was close and intimate.

Goldwater was born in New York in 1873. He began his career at eighteen, as a staff member on a trade paper in New York. However, his bent from the very beginning was toward what might be called practical ethics; he loved justice in the abstract, and he was casting about for a way to put his principles to concrete use. He studied

politics, sociology and economics at Columbia and Leipzig, but found nothing to satisfy him until he turned to medicine. Years later, in a letter to a friend, he described the course of thought that brought him to decide on a medical career:

"With an ethical background and [a youthful] love of and belief in justice . . . I speedily arrived at the conclusion that a mere analysis of economic conditions without a social objective was hardly worthwhile. . . ."

Appalled by the dog-eat-dog economic practices and the chaotic social organization he saw around him, and profoundly convinced of the fundamental equality of men, he decided that what he really was interested in was improving the living standards of all men through a just distribution of wealth. Characteristically, Goldwater defined this generalized objective further in the simplest and most concrete terms: he wanted to see that no one was allowed to fall below minimum standards of health. By this he meant not only that people should be free from disease, they should also be warm, well-fed and sheltered. He viewed health not as a privilege but as a right.

"How," he asked himself, "could such a standard of living be determined? This line of thought led straightway back to a physiological definition of health and suggested to me that any system of applied economics designed to satisfy human needs would eventually have to be administered by public-health officers. At once I . . . took to medicine as a stepping stone to what I then hoped would be a useful public-health career."

After taking his medical degree at the New York University College of Medicine in 1901, Goldwater applied for a position on the Mount Sinai house staff. He did brilliantly in the competitive examination—only three of the candidates successfully solved a difficult diagnostic problem and he was one. He made an outstanding clinical record during his internship. In fact, he was so promising that, when he announced his intention of going into hospital administration, virtually every senior clinical man who knew his work tried to discourage him. He was not to be put off, however, and was appointed assistant superintendent at Mount Sinai.

To him, the hospital was "a strange, fascinating, forbidding mixture of elevating and depressing elements." He spent the year 1902 studying hospitals, hospital procedure and hospital architecture, in France, Germany and England. After that year, he wrote, "One gets swallowed

up in this work. . . . All day questions of life and death, and happiness and employment and discipline and dissatisfaction . . . in which a thousand persons are interested who forget the rest of the great wide world."

It was on his return from this year abroad that Goldwater began to acquire his spectacular reputation as an administrator and organizer. The fact that he was a physician gave him an enormous advantage over his predecessors, who had been housekeepers, rather than hospital administrators.

Goldwater thought of the Hospital from the beginning primarily in terms of the patient: "The most important person in the hospital is not the governor, the contributor, the doctor, the nurse, the superintendent, or the secretary; the most important person in the hospital, beyond all question, is the patient," he wrote. Although his understanding of scientific medicine was dynamic and progressive, he approved of expansion or the creation of new departments only if he was convinced that they would, in the end, contribute directly to the better care of patients. Hence, in 1906, he actively encouraged the formation of a Social Service Department at Mount Sinai—the third in the United States (Massachusetts General Hospital in Boston and Bellevue in New York had set up such departments earlier). He saw hospital social service as part of a broad medical program, rather than as an end in itself: "When the social service worker asks not only for more thorough treatment but for a more careful inquiry into the causes of disease, he touches elbows with the apostles of preventive medicine whose program embraces eugenics, prenatal care, infant hygiene, school clinics, physical training, the development of recreational facilities, venereal prophylaxis and treatment, industrial hygiene, periodic physical examination, model housing, diagnostic laboratories and the enactment of countless sanitary regulations in urban and rural communities."

Goldwater was also active in pushing for establishment of the Dentistry Department at Mount Sinai and expansion and better organization of medical education—both unusual and costly steps for a general hospital to take. But, he argued, "Hospitals that lend themselves disinterestedly to the purposes of medical education are pursuing a wise social policy and are serving many patients besides those on their wards."

Goldwater believed firmly in the general hospital as the best instru-

ment for giving patients the benefits of modern medicine. He insisted on this from the start of his career, even though he began his work at a time when medical specialties were establishing themselves by the dozen and the trend in hospital construction was toward more and more specialized hospitals. As Mount Sinai's Director, he was wary of over-development of highly specialized departments and of the isolation of surgery from medicine. Yet, as a physician, he actively encouraged expansion of such departments as X-ray when the technical development of the specialty demanded it. His thesis was that all branches of medicine should be integrated for the benefit of the patient.

Again ahead of his time, Goldwater was extremely interested in the development and use of the Out-Patient Department. He believed that the same staff should serve in-patients and out-patients. He thought of the Out-Patient Department as a polyclinic, and insisted that proper use of its diagnostic and treatment facilities would prevent much unnecessary and expensive hospitalization. He also believed that the Out-Patient Department, properly organized, could serve as the best training ground for young physicians and was firmly committed to the idea that the O.P.D. should be an integrated part of the hospital, and not merely an appendage to it.

Among the most firmly held of Goldwater's ideas was his belief in the pavilion-type hospital. When he first went into hospital work, doctors, architects and others interested in the building of new hospitals and the remodeling of old ones disagreed as to the most efficient kind of physical plant. Strong opinion favored the cottage-type hospital, which was essentially a group of disconnected buildings on a large plot of land. A number of famous European hospitals were of this type; many of them, however, had not been planned as multi-unit hospitals, but had expanded haphazardly as need arose into whatever buildings were available. On the other hand, the single-unit, many-storied hospital also had strong supporters. Their argument was that the pavilion hospital, although many examples existed, had been outmoded by improvements in sanitation, ventilation, heating, lighting and plumbing. They thought of the hospital as a monolithic institution, into which patients and medical science were to be fitted, rather than as a flexible accommodation which could adapt itself to the demands made on it.

Pavilion-type hospitals, essentially segmented units, could be

planned with the idea of co-ordinated activity in mind, and so arranged that communication and co-operation among the different units would be efficient and rapid. On this point, Goldwater wrote: "Maximum personal efficiency presupposes minimum lost motion. This can be accomplished only if the hospital is so organized that all of the institutional and most of the professional activities of the visiting staff, whether in relation to private or charity patients, are carried on in a single establishment."

On another occasion, although he did not believe that either hospital planning or hospital administration would ever fossilize into "perfection," Goldwater wrote: "There are three basic principles in hospital planning, which if commonly applied would vastly improve the character of our hospital buildings. Unity is the first principle. The architect, having in mind the diversified character of hospital work, often forgets that the institution must also be a unit working in harmony. Diversity, the second principle, may be carried to an extreme, but on the other hand a plan may be adopted which is too simple in design and which does not allow for sufficient specialization of the functions of the hospital. Flexibility, the third principle, which provides for convenient expansion, if blended with unity and diversity, will make a physically perfect hospital."

Goldwater, beginning as early as 1908, as Consulting Expert in Hospital Construction for Bellevue and Allied Hospitals, and eventually advising 200 different institutions all over the world, had a world-wide influence on hospital construction. Thirty hospitals in New York called him in for expert advice, as did eighteen in Philadelphia, and one or more in St. Louis, Cleveland, Newark, Pittsburgh and Rochester. He helped plan the American Hospital in Paris, St. Paul's Hospital in Manila, St. Luke's in Tokyo and worked on the plans for the Institute of Experimental Medicine in Leningrad. He worked with the Rockefeller Foundation in planning the Peking Union Medical College and carried out a sweeping reform of Charity Hospital in New Orleans at a time when political corruption had almost ruined it as a medical institution.

Goldwater was fascinated by the relationship of medicine to the community, especially as expressed through hospital and public-health facilities. As early as 1908, he became a leader in professional hospital organizations (in that year he was elected president of the American Hospital Association), an activity he continued until the end of his

life. He was one of the first experts to recommend community-health surveys to determine hospital needs and strongly influenced hospital administrators to think in terms of community-wide co-operation rather than in terms of their own institutions alone. To further such co-operation, he advocated organizations of groups with similar interests as early as 1912, when he helped form the Association of Out-Patient Clinics to co-ordinate and improve dispensary work in New York.

Another channel for both achievement and influence lay in Goldwater's conception of the role of the lay boards which govern hospitals. The key to this conception was in Goldwater's own insistence that they should take active responsibility for hospital affairs instead of merely lending their names or allowing their financial contributions to speak for them. In this, he was ably seconded and sincerely championed by George Blumenthal, as President of Mount Sinai. The teamwork of these two forceful men is as responsible as any other factor for the establishment of Mount Sinai as a great hospital.

At the same time, Goldwater made a sharp division between matters properly in the lay board's province and those primarily the concern of the medical staff.

In practice, he encouraged organization of special committees within the lay board, with specific responsibilities toward specific Hospital departments or functions. For himself, although he recognized that it would be easy to act directly under the wide powers delegated to him by the Board, he chose to refer all major decisions to it or to its appropriate committee. In this way, the Mount Sinai Board of Trustees acquired a real working knowledge of the intricacies of hospital management and a practical interest in the welfare of the Hospital. The result of this policy was fortunate for Mount Sinai.

For one thing—very important from the viewpoint of hospital efficiency—it made co-operation between the lay and medical boards easier and more constructive. "A hospital board that knows no value but quantity needs to be taught that clinical practices vary in method and efficiency and that statistical summaries of 'cures' cannot always be taken at their face value," wrote Goldwater. Members of both lay and medical boards served on joint committees. Thus, the lay directors learned about clinical and scientific problems at first hand, while the Medical Board learned about financial and administrative difficulties.

Goldwater also developed a smooth-working relationship between the administrative staff and the Medical Board. In this, to a large extent, he had the advantage of the generation-long influence of the respected Abraham Jacobi, and also of a working system of Joint Conference Committees of the two boards. As the Hospital expanded and more and more new services and departments were added under his administration, Goldwater developed a more sophisticated system.

Throughout his career, Goldwater demonstrated his double concern with the broadest and smallest aspects of hospital work. He carried on a tremendous correspondence with other hospital and public-health experts all over the world. For many years, he dictated a diary to his confidential secretary. The diary contains not only his broad ideas and basic plans, but notes on items of vital concern to him. He was concerned about hospital beds too narrow for comfort, budget problems, the advantages of centralization of administration over decentralization, choosing proper personnel, simple kindness on the part of the medical staff, and so on.

Goldwater worked extremely hard. He developed a phenomenal control over his memory and had volumes of operational and statistical minutiae always at the tip of his tongue. Yet he never allowed himself to become so bogged down by detail that his larger purposes were obscured. And because, in his mind, the main purpose of his career was public service, he interrupted his work at Mount Sinai several times to do government work.

The first of these occasions was in 1913. In that year, John Mitchel, reform Mayor of New York, called Goldwater in as the City's Commissioner of Health. (The Mount Sinai report for the year notes that the Trustees "reluctantly agreed.") The Health Department then had a budget of $3,500,000 and a staff of 3500, but there was little organization and less of a program.

One of Goldwater's first acts demonstrated clearly that he was a physician first and an administrator second: he pushed through an ordinance requiring patent-medicine manufacturers to list every ingredient in their nostrums on the labels, or to register their formulas with the Department. Because that was the era of soothing syrups loaded with opium and "herbal remedies" consisting mostly of tap water or alcohol, such an ordinance was badly needed. It was also savagely opposed. In other aspects of the work, Goldwater extended the city's vaccination program to include the parochial schools, and, to

convince both public and public-health workers of the importance of periodic health examinations, instituted them as routine in his Department. He also established a Bureau of Industrial Hygiene—one of the first in the country—and an Occupational Clinic. In the belief that decentralized administration best serves a city as vast and varied as New York, he also instituted local health districts.

A characteristically forward-looking move was his establishment of a bureau of health education, although (again characteristically) he wrote of such attempts: "No amount of popular-health education will suffice in itself, because, while popular education may teach some of the people to protect themselves against specific dangers, many of the risks to which they are exposed and many of the diseases to which they are subject develop insidiously and are of such a nature that nothing but a careful and competent physical examination, supplemented by certain clinical and laboratory tests" will serve for either prevention or cure.

After two years' service as Health Commissioner, Goldwater returned to Mount Sinai as its Director. During the First World War, he served as Chairman of the Hospital Division of the Medical Board of the Council of National Defense. One of his main jobs was to coordinate the campaign being waged by the medical profession, educators and others interested in the problem against the drafting of medical students and interns as privates in the Army. Were this to be done, he argued, the supply of doctors would be irretrievably cut to the eventual detriment of the nation as a whole. The War Department eventually conceded their point, and drafted medical students and interns into a Medical Reserve Corps, leaving them free to continue their work.

Another campaign Goldwater conducted was typical of his hospital philosophy. He forcefully opposed the War Department's plan to build huge military hospitals in isolated areas. His reasons were, first, the hardships such isolation would work on the patients (he was ever mindful of the hospital's obligations toward the lonely, frightened patient cut off from family and friends), and, second, the difficulty of assembling good staffs. He favored, instead, a central medical bureau to make policy and do the necessary supervision of cantonment hospitals which would be rather loosely affiliated with it. The cantonment hospitals would then be free to adjust their operations to local conditions. This battle Goldwater lost, but only temporarily. The in-





)r. *Charles A. Elsberg as a Young Laboratory Assistant*

Dr. Howard Lilienthal





Dr. Emanuel Libman

Dr. Fred S. Mandlebaum as a Young Pathologist



Social Welfare Work, 1907



The Officers of Base Hospital No. 3



The Nurses of Base Hospital No. 3

efficiency of Veterans Administration Hospitals, organized according to the plan he opposed, became scandalously clear between the two wars. Goldwater's philosophy was put into practice only after the Second World War. He also recommended the training of nurses' aides to relieve the critical shortage of nursing personnel in hospitals of all types. In short, his policies during the First World War were those accepted as obviously essential, by hospital and medical experts, during the second world conflict.

On Goldwater's return to Mount Sinai, he threw himself into the Hospital's plans for expansion. The last big plan he submitted to the Hospital was accepted in the year of his resignation (1928-9). This was a plan for a $2,000,000 program of expansion and rebuilding, with a semi-private pavilion first on the list of projects. Goldwater, however, felt that the pressure of continuous responsibility for the Hospital's welfare now should pass to other hands. He had for years opposed permanent tenure of high positions; he believed that this suffocated initiative and ambition in younger men.

Accordingly, he offered his resignation and it was accepted with regret: "For those who have been in close touch with the operation of Mount Sinai Hospital for the past twenty-five years, it will be difficult to think of it without Dr. Goldwater as its active and administrative head, but such is now the case. Dr. Goldwater has . . . felt the pressure of his outside consulting work to be so great that he repeatedly expressed the wish to resign . . . [he has] finally felt the time has come. . . . The fame of Mount Sinai and his own have been closely linked . . . [he is] the leading authority both on hospital administration and construction . . . [he is] Consultant to the Hospital . . . ," wrote the President in the Annual Report. Dr. Joseph Turner, who had worked under Goldwater since 1922, was appointed as Goldwater's successor.

Goldwater's career was far from over, however. He continued his worldwide consulting work, his activity in professional associations, his voluminous writing for professional journals. More and more, his concern with an equable distribution of medical care deepened as the depression that set in soon after his resignation got steadily worse. Then, in 1934, came one of the great opportunities of his life: Fiorello La Guardia, long his friend, asked him to step in as Commissioner of Hospitals for the City of New York.

The assignment was formidably difficult. After years of corrupt con-

trol, the twenty-six city hospitals were in unbelievably bad shape. Responsible city officials knew that people were afraid to go to city hospitals for treatment. Yet more and more patients—20,000 daily—were forced to turn to them. Medical men and the members of the La Guardia administration knew that the staffs of the hospitals were riddled with politics, and that those staff members who wanted to clean up the situation were hamstrung by red tape and corruption. Nursing services were both inadequate and bad. Corruption had its usual effect on food and supplies. Buildings were old, rundown and dirty. There were brutality, indifference, laziness and inefficiency to contend with, as well as hostility in high places and, for any man determined to clean up the mess, the certainty of malicious attack and calumny.

Goldwater realized all this perfectly well. He dropped all his consulting work from the day he took office and stopped all activities not directly germane to his job with the city. In addition to the moral and professional challenge involved in reforming the department, he also had to keep it running from day to day. This involved planning for and administering the largest hospital department in the world—millions of visits by tens of thousands of patients, thousands of staff, dozens of buildings—at a time when the depression had cut funds to the bone.

But after seven years of effort, the city could look with pride on Goldwater's almost superhuman achievement. His goal had been a "Department of Hospitals . . . run on a non-political, non-profit, non-partisan, non-personal basis." To achieve it, he insisted on a high degree of autonomy for each staff and each institution; one reason for this insistence, he said, was that the staffs were legally and morally responsible for the care of their patients, even though they were under the general jurisdiction of the Hospital Department.

He reserved questions of over-all planning for the Department, however. He insisted that the purchasing division supply the medical staffs with exactly the supplies they requisitioned, reasoning that the physicians who were responsible for the patients should have the material they could work with best. He also insisted on strict merit-system appointments and advancement for lay employees. Interns, however, were not appointed through Civil Service, to allow for staff flexibility and the exercise of purely medical judgment in medical matters. To

make sure his policies were sound, he organized expert consulting boards in medicine, nursing, dentistry and administration.

In 1936 he got the first sizable city appropriation for pure clinical research; the money was expended under the supervision of an advisory council, including some of the most eminent scientists in New York. (The clinical investigations were centered in the new hospital on Welfare Island, which Goldwater had planned and which, after his death, was renamed in his memory.)

After the Hospital Department had been put on its feet, Goldwater resigned, to the city's open regret, to become president of Associated Hospital Service—the "three-cents a day" plan for hospitalization insurance which was then making headlines. He had always been a forceful supporter of the voluntary hospital system and, as early as 1919, an explicit opponent of compulsory health insurance (although he favored regulated per-capita subsidies from public funds to general hospitals).

Yet he was disturbed by the disparity in the amount and kind of medical care available to both the poor ward patients and rich private patients. He was convinced that voluntary-insurance plans would eventually narrow this gap. He was a bitter and outspoken opponent of the diehards in organized medicine who refused to recognize that medical economics had to be adjusted to human economics. He hoped, through Associated Hospital Service, to further his aim of co-ordinating the efforts of hospitals, interested social groups, medicine and government, to achieve adequate medical care for all groups of the population without sacrificing medicine's essential values. He also hoped to encourage the development of group practice.

But Goldwater did not live long enough to realize his final ambitions. He died on October 22, 1942, devastated by the outbreak of the Second World War. He refused dedicated numbers of *The Modern Hospital* and *Hospitals* in honor of his seventieth birthday, protesting that he had had reward enough and declaring, sadly, that "no sane man can undertake to make assured prophecy . . ." of the future of hospitals—or, perhaps, of the future of the world in which hospitals exist.

Goldwater was, to many who knew him, a cool, self-contained, efficient, assured administrator. To others, he was a contentious, difficult, resourceful opponent. To all, he was acutely intelligent, gentlemanly,

deeply convinced of the importance of the work he did and rightly confident of his ability to do it.

He had a surprising gift for satiric verse, which he used quite frequently for the amusement of his friends and occasionally for the discomfiture of his enemies. (Friends and students close to him have carried on this tradition since his death.) One of his poems, written in answer to an arrogant speaker who condemned hospitals sweepingly for lack of planning and extravagance in detail, shows many of the qualities that made him notable:

Go hospitals, and hide your heads diminished;
Exposed for what you are, your game is finished.
And why not? What have hospitals ever done?
They've served the sick, you say? They have, like fun;
They've squandered precious millions shamelessly
While rushing headlong onward, aimlessly.
You cannot show me one that has a plan
Says M.F. (though his Council says it can).
Physicians are like tiny Lilliputians
Crushed in the mouths of giant institutions.
Since only by their talents it can live,
The hospital takes whatever M.D.'s give;
It steals their patients, picks their fruitful brains,
To swell the volume of its ill-got gains.
It boasts of doorknobs made of solid gold,
But how it treats the sick must not be told.
Didst ever see a moron in a stupor?
Behold his perfect counterpart, the "Super,"
Who, to win fame, has but to shut the door
And stop the entry of the sick and poor.
To trustees, charity's an empty word,
Of medicine not one has ever heard;
The trustee is a monster—nothing less,
His feelings for the doctor pitiless.
Although he would destroy them (the poor fools)
A hundred thousand staff men are his tools.
Go hospitals, and hide your heads diminished,
Exposed for what you are, your game is finished.

EPILOGUE

How come the A. M. A. has never tumbled
Though all the world's aware that Fishbein fumbled?
Wake up, Messieurs, before it is too late
And gently give garrulity the gate.

* * *

Mount Sinai's dynamic growth during the years before the First World War coincided with a period of great social change, a period during which it might be said that the country was developing a social conscience, especially in regard to public health. It was during this period, for instance, that the long fight for a Federal Pure Food and Drug Act was won. Officially, it was led by Dr. Harvey Wiley, chief chemist to the Department of Agriculture, with a dramatic assist from Upton Sinclair's novel about the rotten meat and rottener practices of the Chicago stockyards, *The Jungle*. The long and dramatic fight over this bill—in which doctors participated from the beginning—caused an international scandal.

It was also during this period that medical social service began to develop, first in England, under Charles Stewart (later Sir Charles) Loch, and later in the United States. Social reformers, especially in New York, Chicago, and Boston had begun training social workers as early as 1898. Dr. Richard C. Cabot of Massachusetts General Hospital was one of the first to see how well the new field dovetailed with medical problems, especially in dispensary work. In October, 1905, he installed an experienced social worker to work with the physicians in the MGH Medical Clinic.

The acceptance of social work in hospitals spread rapidly, encouraged by physicians' increasing awareness of the social implications of disease. This awareness found its focus in the anti-tuberculosis movement then getting under way—a movement in which Mount Sinai participated fully, especially through Dr. Alfred Meyer, a tiny, hard-working, erudite physician who was also a gifted musician and a serious student of composition, whose active career spanned almost two medical generations.

Meyer, a brilliant diagnostician with a phenomenally good memory for pathology, was early convinced that much more than the efforts of private or voluntary agencies was needed to control tuberculosis, although he was active for many years in various tuberculosis associations. Dr. Ira Cohen, in a memorial in the *Journal of the Mount Sinai Hospital*, wrote of what was probably Meyer's best achievement: "By dint of hammering, hard work and much correspondence, and with the co-operation of the Charity Organization Society, the Association for Improving the Condition of the Poor, the St. Vincent de Paul Society, the United Hebrew Charities and the State Charities Aid Society, Dr. Meyer was responsible for meet-

ings at the New York Academy of Medicine which finally resulted in the establishment of the Municipal Sanitarium at Otisville in 1906. . . . Nor is the State less indebted to him for the establishment of the sanitarium at Ray Brook. After the introduction of the bill for its establishment in 1900, he appeared . . . in Albany to advocate its passage [before Governor Theodore Roosevelt] . . . he condemned the proposed site near Dannemora Clinton prison. . . . Finally . . . New York State was second only to Massachusetts in establishing a state hospital for its tuberculosis poor [July, 1904]. . . ."

In attempting to take care of its patients with tuberculosis, Mount Sinai actively co-operated with a number of social agencies, and with the Charity Organization Society's Committee for the Prevention of Tuberculosis, which divided the city into districts for tuberculosis care. This co-operation, plus a longstanding concern for the welfare of patients discharged from the Hospital, evidenced by repeated comments in the Annual Reports about the need for country convalescent homes, employment for the handicapped, and related matters, provided a solid foundation for establishment of a social welfare department in 1906.

In 1901, Emanuel Lehman and his sister had made a gift of $38,000 to the Hospital to be used for "helping the poor and needy" at the Hospital's discretion. In 1906, Paul M. Warburg supplied the money necessary to organize a Social Welfare Department on an efficient basis. The first social worker at Mount Sinai, as in many hospitals, was a nurse, Miss Jennie Greenthal, who took the job at the suggestion of Dr. Goldwater.

After studying Dr. Cabot's report and the recently formed department at Bellevue, Miss Greenthal was given a desk drawer for her papers and allowed to interview her clients in the office of the Admitting Physician. The Annual Report noted: "We anticipate important results and great benefits from the establishment of this truly philanthropic and most useful agency."

During the first few months of its operation, the Social Welfare Department was much concerned with getting compensation for workmen injured on the job (there were no Workmen's Compensation laws). Miss Greenthal also attempted actively to establish regular contacts with convalescent homes for the chronically ill—always a difficult task for so active a general hospital with such varied patients. Mount Sinai had close relations with the Solomon and Betty

Loeb Convalescent Home, established in 1906 at East View, with what was then the Montefiore Home (later the Montefiore Hospital) and with other convalescent homes near New York. There were, however, so many chronically ill patients and so many who needed long and restful convalescence that Mount Sinai began, in 1906, to think about building a 250-bed convalescent home of its own. This project, however, although enthusiastically backed by the directors and Dr. Goldwater, would have to be put off for at least a generation.

Miss Greenthal visited patients in the wards and in their homes, discussed family problems, arranged emergency care for children, and bought surgical appliances for needy patients. At the end of three months, she returned to her nursing duties and was replaced by Miss Rose Johnson.

In its first two years, the Social Welfare Department handled 800 patients. It was supported by special gifts from interested directors. But in the Annual Report for the year 1908 was a note that indicated the Department had been accepted as an essential part of the Hospital: "It is now recognized that the condition of a patient's family while he is in our wards, as well as his needs immediately after his discharge from the hospital, constitute so vital a part of his ability to recover, and to retain his health, that the work of this department has come to be recognized as a legitimate part of the functions of the institution."

By 1909, two nurses were assigned to the Department, and one of the Associate Physicians regularly advised them on the medical aspects of the 1471 cases they handled. The expanded Department had begun visits to "the homes of children and infants discharged from the hospital for the purpose of instructing their mothers in the principles of hygiene, methods of infant feeding and sanitation."

It was not only through the Social Welfare Department, however, that Mount Sinai tried to serve the extra-mural interests of its patients. Another very important activity was its Tuberculosis Clinic.

Starting in 1907, when the city was divided into tuberculosis districts with a hospital in each district assigned the task of caring for all the district's tuberculosis patients, Mount Sinai also assigned a visiting nurse to "instruct the patient at his home in the proper care of himself, and in the avoidance of practices likely to infect those associating with him." In 1908, in co-operation with the Ladies'

Auxiliary Society of the Presbyterian Hospital, the Tuberculosis Clinic sent some of its patients to a day camp established on a boat, the *Middleton*, in the East River, where they were "furnished with nourishing food and enabled to breathe fresh air and enjoy the cool breezes."

In the following year, however, Mount Sinai had to close its tuberculosis clinic temporarily and use the facilities of the German Hospital as well as the floating day camp and some of the facilities of the Vanderbilt Clinic. In spite of the fresh air, the milk and eggs, and the special instructions about sanitation, however, the problem of tuberculosis continued vast and complex, the Annual Report admitted despairingly—not only for Mount Sinai but for the city.

Another channel through which the Hospital reached into the homes of its patients was the District service. The Hospital supplied nursing service, and medicine, as well as physicians' services.

The employment of nurses in so many activities of the Hospital reflected the slow rise of nursing from its anomalous beginnings to the level of a profession. Nurses had had a hard time getting a foothold in hospitals in spite of the humanitarianism of the late nineteenth century. For one reason, patients and doctors had become habituated to the rough "Sairy Gamp" kind of nurse; for another, the prudishness of the era all but closed nursing to "ladies," and even to less daintily reared women, except in the children's and women's wards. And, although Florence Nightingale and her followers had done so much to improve nursing service and nurses' conditions of work, the profession was still unattractive to many women because of its scullery-maid aspects.

At the beginning of the twentieth century, however, conditions began to improve. The Mount Sinai Training School had been reorganized in the mid-nineties. The effect of the reorganization had been to give both the Medical Board and the Board of Trustees of the Hospital far greater control over the affairs of the Training School. With the growth of scientific medicine, more serious thought was given to the content of the nurses' curriculum and rather less to the question of getting the most service from the fewest possible nurses at the least expense.

When Mount Sinai moved to the 100th Street site, the Training School moved into its own building, where the nurses could live as well as study. The School had been awarded medals for excellence at

the Paris World's Fair in 1900, and at the St. Louis Fair in 1904. Requirements had been stiffened by making "affiliations" (courses of study at hospitals other than Mount Sinai in such branches of medicine as infectious diseases and obstetrics) compulsory, rather than elective, and registering the School with the Board of Regents of the State of New York.

Much of the reorganization was accomplished under Anne Deavo Van Kirk, who was appointed superintendent in 1905. Miss Van Kirk was a graduate of Smith College and of the Presbyterian Hospital Training School, a gifted organizer, energetic, enthusiastic and intelligent. It was at least partly through her efforts that the nursing school was accepted by the Board of Trustees and the staff of the Hospital as a serious institution of learning rather than simply as a convenient source from which nurses could be drawn.

In the Hospital's Annual Report covering the year 1905, the President asked, as he had been doing for a number of years, for increased support for the Nursing School. But, instead of emphasizing the comfort and solace nurses could bring to frightened patients and worried families, and the humble aid they could give to doctors, he struck a note that echoed the emergence of women into the economic world: "The Mount Sinai Training School," he wrote, "renders invaluable practical services in more ways than appear at first thought. Its obvious mission is . . . to educate a corps of women . . . competent in caring for the sick, either in hospitals or private homes—a very excellent purpose, and one which, alone, would recommend the school to generous consideration. But it has a second mission, whose results from an economic standpoint are certainly no less far reaching and influential—that of fitting women to earn a livelihood through noble work." Although he did not state that the number of women who had to earn their livelihoods was growing ever larger, the constantly increasing enrollment at the School bore this out.

After Mr. A. W. Scholle resigned as President of the Board of the Nursing School, Mr. Hugo Blumenthal was elected to succeed him. Hugo Blumenthal, cousin of George Blumenthal, President of the Hospital, was courteous, soft-spoken, thoughtful and devoted to the interests of the institution he headed for many years. During his first year as President, he established the Estelle and Hugo Blumenthal Scholarship Fund of $35,000.00, to be used to maintain a $500.00

scholarship to be awarded yearly to the graduating student showing the greatest aptitude and fitness for advancement in nursing. Another provision for disposition of the income of the Fund—a gift of $25.00 to each nurse who successfully completed the three-year training period—was typical of the warmth and personal interest Hugo Blumenthal brought to his philanthropy.

Somewhat earlier, in 1905, Murry Guggenheim gave $20,000 to set up twelve annual scholarships for the students with the best scholastic records. In the same year, the Eugene Meyer, Jr., reference library fund was established. By 1908, 174 nurses from the Training School were employed in the Hospital (this figure included both graduate nurses and students, who in those days spent most of their time in the wards, not in the classroom). The Registry had also answered 2,579 calls for graduate nurses from outside the Hospital.

Three years later, it was decided to enlarge the Training School, which had been planned for 150, because there were then 168 student nurses and the number was expected to reach 200. Perhaps the most telling evidence of acceptance came in 1911, when the Annual Report noted: "There is a mistaken impression abroad that the remuneration received by trained nurses is sufficiently liberal to enable them to provide, out of their earnings, for the time when they may become disabled, for one reason or another. So trying are the duties of a conscientious nurse that several months of rest every year is practically a necessity if an early breakdown is to be avoided. To encourage Mount Sinai nurses and to give them a practical expression of sympathy, friends of the school . . . have raised a fund of $60,000, known as the 'Pension Fund of Mount Sinai Training School Alumnae' out of the income of which provision will be made, as far as possible, to take care of nurses having had twenty years of service and who are no longer able to take care of themselves. . . ."

The final proof of the indispensability of scientifically trained nurses, which was to come during the looming First World War, would more than justify this forethought.

12

The Modern Hospital Emerges

ONE WAY TO TRACE THE EXTREMELY RAPID GROWTH OF MOUNT SINAI after the Hospital was moved to 100th Street is to contrast the size of the staff that moved with the Hospital with the staff it needed a decade or so later. When the new buildings were opened there were thirty-nine staff members, exclusive of four consulting physicians and surgeons. The special services included gynecology, ophthalmic and aural surgery, neurology, dermatology, laryngology, radiography and anesthesiology. There were six professional members in pathology.

In 1912, the consulting staff included one physician, two surgeons and an ophthalmic and aural surgeon. The active staff numbered sixty-five. The thirteen members of the Pathology Department were all professional men, including two physicians holding fellowships and one intern. There were three pediatricians, six gynecologists, four ophthalmic surgeons, three aural surgeons, three genito-urinary surgeons, three neurologists, three dermatologists, an orthopedist, a laryngologist and an associate laryngologist, and a physician and surgeon in the isolation service. The Staff also included a radiographer, a radiotherapist and an associate radiographer, five anesthetists, a dentist and an adjunct dentist, a physician-in-chief to the District Service and two district physicians.

The House Staff in 1905 had included ten medical and ten surgical interns and four "provisionals" for the first half of the year; three

"provisionals," and twenty medical and surgical interns, made up the House Staff during the second half of the year. The Dispensary staff of twenty-seven chiefs and seventy-six assistants cared for a daily average of 460 patients in twenty-seven departments.

In 1912, the Dispensary staff of 195 was divided among fifteen departments: internal medicine, surgical, children's, ear and throat, eye, neurological, dermatological, gynecological, clinical microscopy, orthopedics, genito-urinary, radiotherapy, physical therapy, pulmonary diseases, and the admitting department. Seven women physicians, a very large number for the period, served on the Dispensary staff—one in internal medicine, one in surgery, three in the children's department (including Dr. Sara Welt as chief of one clinic), one in ear and throat and one in neurology. The House Staff was divided into two sections each in medicine and surgery. Five house officers and two provisional assistants were assigned to each division. The private-pavilion resident staff numbered four—two surgeons, a physician and an anesthetist.

The increase in the amount of work the Hospital was called on to do during the same period was reflected in its statistics. In 1905, the Medical Board recorded a total of 5,330 patients treated in all Hospital departments; there were 1,086 accident cases in addition. In the Dispensary, there were 139,557 consultations in all departments with an average daily census of 460.58 patients. In 1911, there were 8,121 patients treated in all Hospital departments, 3,811 accident cases, and 226,898 consultations for 87,853 Dispensary patients.

During this time, the Annual Reports noted regularly that the expense of operating the Hospital was steadily mounting in all departments. Much of this increase took place because the number and quality of services available to patients were constantly increasing, both medically and in the housekeeping departments. Partly, also, it derived from the fact that the general level of wages and prices for all kinds of work and all kinds of commodities was also advancing.

In 1905, for instance, the per-capita daily food cost, for some 358 interns and nurses and some 312 patients (the average number daily in the Hospital) was 33.15 cents, against 29.64 cents in the previous year. The combined expenses of the Hospital and Dispensary for that year totaled $250,510.14, not including costs of improvement and repairs and the cost of maintaining the Dispensary. Income from all

sources applicable to the support of the Hospital, in 1905, was $327,-674.17. (This income derived from the various classes of membership in the Hospital corporation, from paying patients, from the city for the care of some patients, from legacies, from the Training School for the support of its nurses, from one or two special funds, and so on.) Disbursements totaled $308,814.90, leaving a balance of $18,-859.27.

When the yearly report was issued in 1912, total income (from much the same sources) was recorded as $436,223.42. Expenditures amounted to $447,709.31, leaving a deficit for the year of $11,485.89, which, added to deficits from the previous two years, put the Hospital's total deficit at $22,289.65.

So fast had the Hospital grown that, within five years or so from the date the new buildings were opened, most of its departments were clamoring for more space. The Laboratory Staff found the Pathology Building too cramped to allow for an adequate teaching program; even routine work could hardly be accommodated, and the volunteers who wanted to do original research were almost crowded out. The fast-growing Dispensary, doing more work than any other in the city, needed more room for patients, staff and equipment in all its divisions. The Training School, which had had eighty-five students in 1904, expected to enlarge its student body to 200 before the decade was over. Since the Training School building could house only 160, additional accommodations were absolutely necessary.

In response to these and other demands, major additions and improvements to the physical plant of the Hospital were made during 1910 and 1911. The children of Meyer Lehman, who had given the funds for the Dispensary Building, gave an additional $78,528 to enlarge and remodel it. Two floors were added to give space to new departments and improve the quarters of the old ones.

Many of the clinics were in urgent need of expansion. The Tuberculosis Clinic had in 1910 cared for 783 patients who made 4,650 visits. The Skin Clinics were especially active; dermatologists from all over the country visited Mount Sinai to study their work. Dr. Hermann Goldenberg, the Attending Dermatologist in charge of the Syphilis Clinic, received some of the first Salvarsan to be sent to the United States, and in 1910, a year after the discovery of Salvarsan, a separate clinic was organized for the treatment of syphilis. Mount

Sinai was thus among the earliest American hospitals to introduce modern methods in the treatment of syphilis.

Enlargement of the Dispensary made possible the establishment of three new departments: Orthopedics (for the first time as a full-fledged service), Physiotherapy, and Radiotherapy. (In giving physiotherapy so important a place in its work, the Hospital was well in advance of the time. Physiotherapy was used both for its immediate value and as an adjunct therapy.) Establishment of the Radiotherapy Clinic marked the first use of therapeutic X-ray at the Hospital. New quarters for the X-ray Department were established on the ground floor of the medical building; until then the Department had functioned in one small room off the operating theatre on the fifth floor of the Administration Building. Two stories were also added to the Nursing School; as an eight-story structure, it could accommodate a larger student body and faculty group.

All these alterations, however, were in the nature of patchwork, as was other minor construction done during the same period in the wards, clinics and laboratories. The fact was that the buildings, although they had been more than adequate when they were first opened, did not suit either the medical or social needs of a decade later. Medically, advances were being made so fast that there was constant need for more space for special equipment, special personnel, special laboratories. Improved anesthesia made more operations possible; advances in surgical techniques again increased this number. Laboratory analyses became increasingly subtle and numerous; improved medication and better understanding of disease enlarged the scope of internal medicine in all its branches. Pathology, in the old sense of morbid anatomy, was still contributing new and accurate understanding of disease; but the new pathology, which joined physiological techniques and an interest in the dynamics of disease to the older pathology, was doing even more. Physics, by improving the accuracy and control of such vital tools of medicine as the X-ray, was contributing heavily to the complexity of modern medicine.

At the same time, New York was filling up. The area Mount Sinai served—counting only the population of Manhattan—was, in 1904, inhabited by about 2,000,000 people. Ten years later, the population numbered a million more.

More, the idea of running a hospital as a simple, direct charity, or as a service given to the community by generous private individuals

on a strictly private basis, was disappearing. In its place, a new concept of social rights, duties and privileges was growing in strength and acceptance, although it would be a long time before it would be accepted without question. The words "the deserving poor" were disappearing in favor of the words "the medically needy"—a shift in emphasis which, though subtle, was significant.

The net effect of all these factors, and others that were also at work outside the Hospital, but impinging on it nonetheless, was to make hospital administration more complex and demanding for all concerned. Plans had constantly to be changed, a never-ending series of adjustments made, preparations started for what was doubtless to be an even more demanding future. In 1913, Mount Sinai announced a program of building and remodeling that, it was hoped, would enable the Hospital to meet the demands on it for some time to come.

In the 1913 Annual Report, the President wrote: "When the plans for the present Hospital were made, the Committee on Buildings and the architects were guided by the experience previously gained in the conduct of the Mount Sinai Hospital and other similar institutions, and in their deliberations they were assisted by a committee from our medical staff. Upon the opening of the new buildings, it appeared that a good deal of foresight had been shown, and the plant . . . was so far superior to what we had heretofore that everybody was satisfied and justly so. . . . However . . . as the years went on, new needs developed, and we were forced to recognize the inadequacy of our accommodations."

For several years it had been pointed out that the Laboratory Building was too small. The expansion announced in 1913 included plans for building a new one. The arrangement of the Children's Building had been found inconvenient. Its wards were too large to allow patients to be properly classified and segregated; smaller wards were needed. Balconies for convalescent children, which had been found effective in other hospitals, were also needed. In fact, advances in pediatrics had thoroughly outdated the original Children's Pavilion. A new 100-bed building was called for.

A big part of the proposed program was to be a patients' building with facilities for medical and surgical specialties. It was pointed out that only the departments of medicine, surgery, gynecology and diseases of children had enough beds for worthwhile clinical study. The rapidly growing specialties had to work in cramped quarters with so

few beds that work in these fields was discouraging. Specialists found it hard to draw valuable conclusions either for immediate clinical use or for the later instruction of interns when the number of patients in their care was too small to furnish adequate material for study. Furthermore, when beds were few and accommodations crowded, development of the specialties to their full potential was apt to be slow. Even the purchase of equipment specially designed for these services was likely to be discouraged. It was obvious that, to develop these departments at Mount Sinai, they must be allowed to expand. From this reasoning came the plan for a building to house 100 patients from the special services.

The new Clinical Building was also supposed to provide room for "white-collar" patients who could not afford the Private Pavilion, yet who did not belong in the wards. Only twenty-four beds, in two "private wards" of twelve beds each, were available for the accommodation of such patients. This compromise was far from satisfactory: ". . . there is no department in the Hospital where a larger percentage of applicants must be refused than in this particular one," noted the 1913 annual report, "and none where more hardship is inflicted on those who cannot be admitted."

The 1913 building program included three other major items. The quarters set aside for the Children's Clinics had grown increasingly crowded, even after the Dispensary had been remodeled in 1910. So great was their volume of work that it was necessary to build a Dispensary for these clinics alone. A building to serve as a home for the Director of the Hospital had also become an essential part of the plant, as was a dormitory to house 240 of the Hospital's employees.

Cost of the whole program was estimated to be $1,350,000. Eleven months after the first announcement of the plans (by December of 1913) $1,000,000 of the sum needed was at hand, thanks to the generosity of 222 individuals. The remainder was still to be found; efforts to do so, however, were interrupted and considerably deterred by the outbreak of the First World War and the general financial uncertainty that prevailed during the war years. The Laboratory Building, the Children's Clinic and the dormitory were already under construction before the full financial impact of the War was felt. Special funds for building the Laboratory had been given by Adolph Lewisohn, whose philanthropy had covered the expenses of the department since 1904.

The building site was on 99th Street between Fifth and Madison Avenues. The Hospital had been acquiring ground in that block for a number of years, making purchases as early as 1905. The Children's Dispensary was being built on 100th Street, facing the buildings built in 1904. (Funds for its construction were given by Mr. and Mrs. William Walter in memory of their children, Florence Walter and Marjorie Walter Goodhart.) The dormitory building stood on 99th Street.

Even this program, which had seemed ambitious in outline, was not enough however. By 1916, it had to be expanded to keep pace with the Hospital's current and anticipated growth, and somewhat altered to suit changing economic conditions. The Private Pavilion was totally inadequate to the demands being made on it. The children of Barbara and Meyer Guggenheim offered $559,000 for a new private pavilion as a memorial to their parents, to be built on Fifth Avenue between 99th and 100th Streets. The Hospital administration pledged that income from the new Private Pavilion would be used to support medical care for ward patients, as far as possible, although the old Pavilion had not been a source of much income to the Hospital. However, the prospect of a new Private Pavilion opened up the possibility of converting the old one into a building to house the special services and of using the old Children's Pavilion to house the semi-private wards. More land had to be acquired to allow completion of this ambitious program, and an additional three-quarters of a million dollars had to be raised.

Many factors combined to delay completion of this program for almost ten years, and to add enormously to its cost. Periods of economic confusion and labor shortages affected it, of course, but the prime factor was the First World War.

One reason so much expansion was necessary at this period was the swift growth of specialties within medicine, impelled by the steady advance of the basic sciences. At Mount Sinai, as elsewhere, considerable departmental reorganization was called for to keep the Hospital abreast of the times.

The facilities of the Neurological Service, for instance, were increased in 1913 by establishment of neurological wards (endowed by Samuel and Harry Sachs in memory of their parents, Joseph and Sophia Sachs). In spite of its limited facilities—it had been allowed six beds on one of the male medical wards and six on one of the

women's medical wards—the Neurological Service had been very active, clinically and scientifically.

Mount Sinai's neurologists were greatly interested in syphilis of the central nervous system. Bernard Sachs, then Chief of the Service, had devoted much study to the Wassermann test after it was announced in 1907. In 1909, when Salvarsan was hailed as a specific cure for syphilis, he went to Europe to study at first hand the new methods for diagnosis and treatment of the disease. On his return, he published *The Wassermann Reaction in Its Relation to Diseases of the Central Nervous System*—a paper in which, characteristically, he advised against acceptance of either test or treatment as miraculously effective. The Mount Sinai group of neurologists (Sachs, Israel Strauss, and David J. Kaliski, then doing serological research) thereafter reported a number of definitive observations on this important subject as well as on other aspects of neurology.

Meanwhile, the stimulus from the activity of the neurologists led to the development, around 1917, of neurosurgery as a specialty—a development in which Mount Sinai pioneered, although a separate department of neurosurgery was not organized until 1932. As more was learned about localization of function in the brain and about the anatomy and physiology of the nervous system, more young surgeons wanted to specialize in neurosurgery and, simultaneously, to learn more about diagnosis of diseases of the nervous system. Neurologists also recognized that the new field would have to be separate from their own; they began to ask to have their neurosurgery done by men who had had experience in the field, instead of by general surgeons. This trend culminated in the eventual organization of a separate Neurosurgical Department.

Closely related to both neurology and neurosurgery was the growth of Otology at the Hospital. Otology had its start under Dr. Emil Gruening, who retired in 1910. In that year, the Otology Service was separated from the Ophthalmological Service, with Dr. Frederick Whiting as its first head. This was the first separate Otological Service in any New York hospital. Whiting had, in 1905, published a classic textbook—*The Modern Mastoid Operation*—which was the first surgical text to attempt to explain a procedure by step-by-step illustrations. Whiting was himself a surgeon of foresight who devised, or was among the first to perform, many new procedures. But he was also laboratory-minded and a stickler for correct antiseptic and asep-

tic technique. After his retirement, he recalled that when he first came to Mount Sinai, surgeons never used rubber gloves; they scrubbed their hands until they were raw, then plunged their arms to the elbows in tanks of antiseptic. Whiting was the first to banish the sea-sponges then used to wipe up blood during operations from the operating room; he introduced the use of sterile gauze wipes instead.

In 1914, the main surgical service was reorganized to take into account the increasing trend toward specialization within surgery. The first steps toward this reorganization had been taken in 1910, when Dr. Gerster was reaching the end of his long period of service to the Hospital. His successors—Drs. Edwin Beer, A. A. Berg, Charles Elsberg, Joseph Weiner and George Brewer—proposed to the Board of Directors not only that they divide the work of general surgery, but that beds in the surgical wards be assigned to the surgical specialties. The directors agreed with this suggestion, and beds were assigned to genito-urinary surgery, neurosurgery, surgery of the neck and face, and surgery of the abdomen—all fields in which Mount Sinai was to make notable achievements.

In fact, in 1910, Edwin Beer—who had been graduated from the House Staff in 1902—had published a paper describing a revolutionary method of destroying some kinds of benign bladder tumors, using high-frequency electric current instead of the complex and dangerous surgical procedures relied on up to that time. Beer's method made it unnecessary in many cases to operate at all. Once his paper on his high-frequency method was published, it was adopted almost immediately all over the world. Beer later, with Abraham Hyman, made many contributions to the technique of cystoscopy in children, and published the first comprehensive reports on urology in children in 1912 and 1914.

In 1914, the division of surgical work into specialties was formalized by creation of four surgical services, allowing for specialized work on the brain and spinal cord, the thorax, the stomach and duodenum, and the kidney and ureter.

In 1916, wards for the surgical treatment of diseases of the stomach and intestines were endowed by Charles A. Wimpheimer, a member of the Board of Directors. It was in these wards that, under Dr. A. A. Berg, Mount Sinai's notable development in gastroenterology took shape. At first, gastroenterology was thought of as almost entirely a surgical sub-specialty; nevertheless, from the very

beginning, interested members of the medical staff were drawn into its development, as was the Laboratory staff and members of the Out-Patient Department staff. Dr. Burrill B. Crohn, who himself was an active participant in the growth of the department, wrote later: "The first recognition of medical gastroenterology dates from the inception of a specialized Out-Patient Division for this purpose," established in 1913 under Dr. Edward A. Aronson. One of the features of the gastroenterology service was the extremely careful follow-up of patients on whom surgery had been performed. On the medical side, laboratory staff and active clinicians worked on biochemical problems, test meals, the effects of drugs on gastric secretion, variations in secretory curves in health and disease and studies of pancreatic secretion and functional activities.

Closely related to the growth of the surgical services was the development of radiology in the Hospital. Mount Sinai's first X-ray machine, bought in 1900, was the first in a New York hospital and one of the first in the country. It was set up in the synagogue between two operating rooms in the Lexington Avenue building; the first picture made with it revealed a fracture in the upper thigh of a very fat patient—but only after ten minutes' exposure. So rapidly was the new technique accepted by the staff that in August, 1901, the X-ray service was made a Department, and in 1908 a "radiographist," Dr. Leopold Jaches, was engaged. Demands on the Department became heavier every year. In 1910, during the extensive reconstruction of the Hospital, it was moved into larger quarters in the basement of the medical building; in 1911, a separate division of radiotherapy was set up in the Department. The first radiotherapist was Dr. Samuel Stern, who had invented an X-ray tube designed to produce "soft" X-rays for treatment of skin lesions; the tube could also, when necessary, be inserted into body cavities.

By 1920, the Radiology Department was one of the busiest and fastest-growing in the Hospital. The Hospital did not own any radium, however; patients who needed radium treatments had to be referred to other hospitals for them. A fund to buy radium—the goal was $250,000—was started in 1920. Two years later, the X-ray Department was re-equipped and relocated.

Improvements in anesthetics and anesthetic techniques were also made during this time, and the activities of the Anesthesia Department altered correspondingly. In 1909, two full-time, salaried anes-

thetists were engaged. In 1910, Dr. Elsberg devised a portable apparatus for the administration of anesthesia by means of intratracheal insufflation of air and ether—a forward step of great importance because it made possible operations on the chest that could not have been performed earlier. Tests were made first on dogs; when an apparatus suitable for use on human patients was devised, it was first used to give artificial respiration by blowing air alone directly into the lungs of patients who had stopped breathing. (One of the first lives saved by this method was that of a patient whose respiration had stopped due to opium poisoning.) In two years, some 400 operations had been performed safely using this anesthetic method.

Until about 1910, all anesthesia at Mount Sinai had been performed by physicians. When the burden of work became too great, however, the Hospital engaged a few nurse-anesthetists—although reluctantly.

The Hospital also found room for new developments in other branches of medicine. The Cardiographic Laboratory was established in 1915, with a machine given to the Hospital by the children of Bernard Sutro in his memory. The huge, cumbersome machine was set up in a small room in the basement of the Laboratory on 101st Street. Drs. B. S. Oppenheimer, M. A. Rothschild and Morris Kahn, after having learned cardiographic technique and methods in Europe, began studying patients on the two medical services and on the Pediatric Service with the cardiograph. They were later joined by Dr. Irving Roth and Dr. Hubert Mann. In 1917, a paper on the results of their studies of myocardial involvement was presented at the American Medical Association; the Association, in that year, presented its gold medal to Dr. Oppenheimer for an exhibit describing the electrocardiographic work at the Hospital.

The Cardiographic Laboratory was extremely active from its inception. After 1927, when Dr. Oppenheimer was appointed to the Consulting Staff, it was headed by Dr. Rothschild, who was succeeded by Dr. Arthur Master, who had long worked in the laboratory as a volunteer and Assistant Cardiographer. Among the achievements credited to the Cardiographic Laboratory staff and their associates are the first description of arborization block (Oppenheimer and Rothschild) and the development of the idea, now generally accepted, that what was once thought of as left bundle branch block was actually right bundle branch block, and vice versa

(Mann). Dr. Arthur Fishberg, whose book on renal disease and hypertension is a classic in the field, also worked closely with the Laboratory.

In later years, the standard test of heart function (exercise plus an electrocardiogram performed immediately thereafter) was developed in the Cardiographic Laboratory (Master and Enit T. Oppenheimer). This was followed by a series of studies on coronary occlusion and angina pectoris. In more recent years, the Laboratory has undertaken extensive studies leading to the more precise use of cardiography as a diagnostic aid. Many of its studies have helped establish the definitive descriptions of important pathological conditions of the heart and blood vessels.

The Laboratories were also expanding to accommodate their increased work load. In 1914, four major divisions of function were set up in the Laboratories: surgical pathology under Dr. Mandlebaum (who was also the active head of the Laboratories), bacteriology and serology under Dr. Libman, chemistry under Dr. Bookman, and morbid anatomy and autopsy under Dr. George Baehr, who had been Assistant Pathologist under Dr. Arthur Cohn until the latter left to head the Rockefeller Institute's new Cardiology Division.

It was during these years of intense activity that Mount Sinai made a signal contribution not only to the resources of medicine but to the welfare of humanity. This was the development of the modern technique of blood transfusion, which depended on the discovery, by the surgeon Dr. Richard Lewisohn, of a safe and simple method of preventing coagulation of the blood outside the body.

The history of blood transfusion had been long and gloomy, stretching back in a record of failure and misunderstanding to the early Egyptians. Not until Carl Landsteiner announced, in 1901, his Nobel prize-winning discovery of the blood groups, was there a scientific basis for transfusion of blood from one human being to another without danger to the patient. The next step was taken by Dr. Reuben Ottenberg, then an intern at German Hospital, who was later to join the Mount Sinai staff (first as a George Blumenthal, Jr., Fellow in Pathology and then in a number of laboratory and clinical positions). In an article titled *Transfusion and Arterial Anastomosis,* published in the *Annals of Surgery,* April, 1908, Dr. Ottenberg noted the importance of testing for blood-group compatibility before transfusion.

Dr. Ottenberg later wrote ". . . The subject is brought in only incidentally in a footnote. I was still an intern and did not realize how important the testing was to become. . . ." (In 1911, however, further work by Ottenberg established that it was safe to transfuse blood whose serum would act on the cells of the patient, but dangerous to use blood which would be acted on by the serum of the patient receiving it. This observation eventually led to the widespread use of group O, whose cells are inagglutinable, as a "universal donor.")

Not even the idea of matching the blood of donor and patient, however, solved all the problems connected with blood transfusion in the early part of the century. Because no one had discovered how to avoid the dangers of coagulation (human blood outside the body normally clots in less than five minutes) any transfusions attempted had to be direct. So many precautions had to be taken, and the operation itself was so difficult, that transfusion was resorted to only as a dramatic emergency measure. Two operating tables had to be set up side by side, one for the donor and one for the recipient; the surgeon performing the operation had to have three or four trained assistants; three or four nurses were needed to handle all the instruments. After extensive preparation (which often took two hours or more), the radial artery of the donor was exposed, and a vein in the arm of the recipient was dissected. The two vessels were then united with a special cannula (before about 1907, artery and vein had been sutured together).

There were many obvious disadvantages to this method, even though it was the best available. The slightest movement on the part of either donor or recipient would disrupt the union of the blood vessels. The surgeon had no way of knowing exactly how much blood had been passed from donor to patient. The method could not be used in emergencies—e.g., patients suffering from shock during operations could not be saved by transfusion, nor could patients suffering from profuse sudden hemorrhages. Transfusion was out of the question for babies—their veins were too small, for one reason, and movement was fatal to the success of transfusion. Nor could many patients be practicably offered multiple transfusions—no more than one transfusion could be passed into any one vein because the vein had to be dissected to receive it. Furthermore, the method was beyond the economic reach of many patients and many small hos-

pitals and communities, which could not afford to develop the special transfusion teams needed to perform the operation.

Efforts to improve the situation were numerous. Dr. Charles Elsberg in 1908 perfected an improved cannula; Drs. Ottenberg and Libman, with David Kaliski, worked on blood grouping and studied the indications for and the management of transfusion. In 1913, the syringe method of transfusion was introduced; this method made it possible to separate donor and patient and to measure the exact amount of blood introduced into the patient's veins. However, it had the disadvantages of expense and difficulty of administration (two well-trained doctors and two nurses were needed); nor could it be used during operations. Furthermore, because the blood was introduced by rapid injection, there was always the danger of overloading the recipient's circulation.

To cap all these disadvantages, and in spite of later refinements in the syringe method (such as paraffinizing the glass to retard coagulation by a few minutes) the overriding problem of coagulation remained. As long as it was not solved, transfusion would remain risky, expensive and rare—a situation that distressed many surgeons, including Richard Lewisohn of the Mount Sinai staff. In a memoir, Lewisohn later wrote: "It was perfectly obvious that the only reason for the complicated methods . . . in vogue was the fact that human blood clots outside the body in from three to five minutes. If it were possible to retard the rapid coagulation of the blood, transfusion could be performed with the greatest ease, without undue hurry, and without requiring any special technical skill. . . . The only logical solution to the problem was the use of anticoagulants. . . ."

A number of interested physicians in both the United States and Europe had been working on the problem, reasoning along similar lines. However, experiments with a number of substances, including glucose, sodium bicarbonate, and sodium oxalate, had failed. "The best known anticoagulant was, unquestionably, sodium citrate," wrote Lewisohn later. "This drug had been used for many years in laboratory work at a strength of 1 percent in order to keep blood fluid for blood chemistry or blood cultures. It seems incredible that until the end of 1914 nobody studied this chemical carefully as to its toxicity and effect on the clotting time of the recipient's blood." (Previous work with sodium citrate, done as early as 1908, had been abandoned; it was thought that the amount of the chemical needed

to keep the donor's blood from clotting would inevitably destroy or damage fatally the clotting power of the recipient's blood.)

Lewisohn, with George Baehr, started a series of experiments with dogs to find out the minimum dose of sodium citrate—i.e., the smallest possible amount which would keep the donor's blood from clotting and, at the same time, be completely non-toxic to the recipient. Tests with dogs' blood (and later human blood in the laboratory) rather quickly established the minimum dose at 0.2 percent.

But, Lewisohn stated, a "universal method of transfusion . . . should be applicable in large transfusions (up to 1500 cc.). If citrated blood in view of the hazard of toxicity should be used only for small transfusions (up to 200 or 250 cc.) its usefulness would be limited." Further experiments indicated, however, that the minimum dose was also the safe dose. It was also established that injection of citrated blood shortened the clotting time of the recipient's blood only fleetingly. Citrated blood, therefore, was clinically acceptable under all circumstances.

(Announcement of successful citrate transfusions was made almost simultaneously by Luis Agote of Buenos Aires.)

Use of citrated blood immediately simplified the transfusion procedure; all that was needed was "a graduated glass beaker for the collection of blood and its citration, and a Salvarsan flask as it was used in those days for intravenous Salvarsan therapy." Scrupulous cleanliness (use of triple-distilled water, autoclaving of all equipment and similar measures) soon cut the number of untoward transfusion reactions to a tolerable minimum. Nonetheless, it was a number of years before citration was universally accepted.

Many years later, Dr. Howard Lilienthal recalled the first citrate transfusion to be performed at Mount Sinai—probably the first in any hospital—which he administered on January 26, 1915. The patient was a man of fifty-five, who complained of severe weakness and anemia of two years' duration, for which no cause had been found. Dr. Charles Elsberg concluded, from examination of X-ray plates, that the patient was probably suffering from a carcinoma of the stomach. Dr. Lilienthal later concurred in this diagnosis. He decided to remove a suspicious node from the left supraclavicular region for pathological examination before undertaking extensive surgery.

He knew that a syringe transfusion, followed by a chill, high fever and aggravation of the patient's anemia, had been performed at

another hospital a few days before the patient came to Mount Sinai. But when he was admitted, Lilienthal administered 700 cc. of citrated blood, with dramatic results. There were no untoward side effects from the transfusion; in fact, the patient was markedly improved, both subjectively and objectively. Diagnosis of carcinoma with metastases was confirmed by Dr. Mandlebaum; the patient was discharged two days later without further surgical intervention.

Even while the first citrate transfusion was being administered, the victims of the First World War were dying on the battlefields of Europe. Many of them might have been saved by transfusion.

Before the War was done, however, some attempts at citrate transfusion for the wounded and dying would be made. In the same fashion, other advances developed by Mount Sinai staff members would be put to use for the benefit of the fighting men. But Mount Sinai was destined to take an even larger part in the conflict.

13

Mount Sinai's Second War: Base Hospital No. 3

IN 1916, THE FIRST WORLD WAR HAD BEEN RAGING FOR TWO YEARS IN Europe. The United States was beginning to see that a part in the conflict could not be avoided. Even though the whole country was singing *"I Didn't Raise My Boy to Be a Soldier,"* popular sentiment for entering the war on the side of the Allies increased steadily as people understood more and more clearly the German methods and motives. The Wilson Administration, recognizing that the sweeping character of the conflict made it a new kind of war politically and militarily, was preparing the many measures necessary to put the country on a combat footing.

"In the sense in which we have been wont to think of armies," said Wilson, "there are no armies in this struggle. There are entire nations armed. Thus the men who remain to till the soil and man the factories are no less part of the army than the men beneath the battle flags. . . . It is not an army that we must shape and train for war. It is a nation."

In keeping with these sentiments, Wilson called to Washington men who had made their marks in civilian life, who had an essentially civilian outlook, on whom he could rely completely. Among them were Leo Arnstein, Eugene Meyer, Jr., Majors S. Herbert Wolfe and Myron Falk of the Mount Sinai Board of Trustees. Other members of the Board devoted all or part of their time to Red Cross work or to other war activities.

The Regular Army Medical Service in those days was not much different in organization from that of the Civil War, which had incorporated advances beyond those conceived by General Letterman. It had few permanent personnel, and these had meager combat experience; its equipment, especially in field items, was primitive compared to Second World War standards. It did not have enough ambulances—either horse-drawn or motorized. One division of 20,000 men in the First Corps arrived in France "ready" for combat with only four Fords and eight G.M.C. ambulances. Another came equipped to carry fewer than thirty-two patients. And some medical units came to France with no ambulances at all!

To make up for its unpreparedness, the Army turned to the American Red Cross and hospitals throughout the country to furnish medical personnel and to organize units for medical service. In 1916 the American Red Cross requested Mount Sinai to ready a unit in the event that war was declared. Under the professional leadership of Dr. Nathan E. Brill and with the lay leadership and financial support of the Hospital's president, George Blumenthal, the unit was organized and equipped.

Recruiting enlisted personnel for the Unit was not the anonymous assembly-line business it was to become in the Second World War. It had the aspects of a highly individualized operation. But it was not without its difficulties—or humor.

To Dr. (later Major) Walter Brickner goes the credit for the screening and recruitment of men which made the Unit an almost self-contained community. The enlisted personnel corps included barbers, chiropodists, carpenters, plumbers, steam-fitters, electricians and many other trades and skills. The corps also had its own baker —reputed to be the best baker in the Army when the Unit arrived in France, a man other units constantly tried to pirate. To this day, wherever Base Hospital No. 3 holds its reunions, they talk of Radovic. How much of the legends about his skill is true and how much they have been enriched by history is hard to tell.

When the recruiting officer examined Radovic, it is told, he was found to be toothless. The regulations stipulated that a certain number of teeth were necessary for enlistment, and so Radovic was rejected. When the Commanding Officer heard that this excellent baker had been rejected for such a reason, he was enraged. He ordered the recruiting officer to go down to the Lower East Side to

find Radovic. Once the toothless baker was found, he was brought back to the recruiting center in a taxicab, it is said, at the enlisting officer's personal expense, in order to make amends for the error. A set of teeth was made for Radovic by the Unit's dentists, Drs. Leo Stern and Jacob Asch.

For a time Radovic was happy with his new set of false teeth, but not with Army life. One day he "disappeared" from the center. A Corporal's guard was dispatched to the Lower East Side to find him. Finally apprehended and brought back uptown, he was cross-examined and asked why he had disappeared. His answer was that he had "resigned." His resignation unaccepted, he remained in confinement until the Unit went overseas.

The Unit was singularly unprepared and unversed in military matters. Reserve officers, commonplace these days, were practically unknown. The Medical Reserve Corps had only been in existence eight years when the Mount Sinai Unit was organized and only a handful on the Hospital's staff, who had been previously commissioned—among them Drs. Baehr and Lilienthal—had a nodding acquaintance with the military.

Dr. Baehr's experience, however, was more than casual. In 1916 he was already at the front, so to speak. With Dr. Harry Plotz, another Mount Sinai physician—later to become world-famous as a Pasteur Institute and Second World War bacteriologist—Baehr went to Serbia as a member of the Strong Commission investigating typhus. After many difficulties, Baehr and Plotz established a laboratory in an American Red Cross hospital in Belgrade—certainly not the safest place in the world for scientific investigation and quiet inquiry. Thirty-six hours before the bombardment of Belgrade, their ears full of the sounds and confusion of impending battle, Baehr and Plotz "decided" to pursue their studies elsewhere. They set out for Uskub, where they established a new laboratory in the British Lady Paget Hospital. No sooner were they settled in Uskub than the town was captured by the Bulgarians, and Plotz and Baehr found themselves temporarily prisoners of war. Their first six months in Europe medically and militarily were almost a dead loss; not only did they find almost no typhus but their movements were, perforce, a succession of retreats.

When the Bulgars discovered the young doctors to be Americans —and neutrals, at that point in the war—on a medical mission,

Baehr and Plotz were invited by the Bulgarian and Austrian Governments to work under their auspices. They then went to Sofia, Vienna and Lemberg and on into Russia. During this journey they saw perhaps more of the war and the warring armies than most regular U.S. Army officers had until that time. This experience with organizational problems, field conditions and armies—unusual as were the conditions under which he acquired it—was to stand Dr. Baehr in good stead and prepare him for the role he was to fulfill not only with the Mount Sinai Unit but in subsequent years as well.

In the spring of 1917, after the United States entered the war, the Mount Sinai Medical Reserve Corps doctors were called to active duty. During the summer, they received their indoctrination in military life and the intricacies of saluting, right-about-face and route-step in a variety of camps throughout the country. Many went to Fort Benjamin Harrison for their instruction under the senior military strategist of the group, Major Baehr, fresh from his European experiences.

In December, the Unit, to be known thereafter as Base Hospital No. 3, was fully mobilized for war service and prepared to sail for Europe. At the time it consisted of twenty-four officers, sixty-five nurses and 155 enlisted men. On February 6, 1918, they sailed on the U.S.S. *Lapland*, presumably for France. A submarine attack on the convoy of which they were part forced a change in plans; the Unit disembarked at Glasgow. The Commanding Officer, Major Michael A. Dailey of the Regular Army, and the troops proceeded to Southampton and then to France. The second-in-command, Major Baehr, convoyed the nurses separately to Southampton, thence to Paris. Even to an experienced officer like Dr. Baehr, *Operation Petticoat*, which involved shepherding, feeding, billeting and paying for the requirements of sixty-five women, has remained a memorable one. In Paris the nurses were detached for service throughout France and were not to return to the Mount Sinai unit until the Base Hospital was fully organized and permanently quartered.

Major Dailey, distinguished for his military mien, his knowledge of military hospital planning and sanitary engineering, lost no time in whipping the Unit into a military organization and in converting an unfinished mental hospital into an Army hospital capable of caring for almost 3,000 patients with any type of injury or ailment.

The French hospital assigned to the Unit at La Chartreuse de

Vauclaire on the River Isle at Vauclaire (Dordogne), some forty miles from Bordeaux, had once been a Carthusian monastery. Its score of buildings of mixed Gothic architecture were surrounded by gardens and cloisters. Alongside the monastery-turned-hospital ran the tree-bordered Isle—the scene of such recreational activities as were within reach of the staff and patients.

In completing the modernization of the buildings the variety of skills possessed by the enlisted personnel proved of great advantage. Originally planned for 500 beds, facilities were soon increased to accommodate 1,000. By October, 1918, when Major Baehr succeeded Major Dailey as Commanding Officer, Base Hospital No. 3 could accommodate 2,800 sick and wounded.

In the perspective of the military events since, the First World War seems a relatively mild affair. It was, however, without precedent in terms of mechanization and concentration of fire power and high explosives. In the wars before the First World War the overwhelming proportion of wounds were caused by bullets. Among German troops in the Franco-Prussian War, for example, nine percent of all wounds were caused by explosive shell; 90 percent by bullets. Among Japanese troops in the Russo-Japanese War, the proportion was 8.5 percent to 85 percent. In the First World War the proportion was almost reversed. Among French troops in 1914, 75 percent of battle wounds were shell-inflicted and only 23 percent by bullets. In the A.E.F. the proportion ran about 3 to 1.

Some idea of this concentration of fire power—still not to be compared to the Second World War—can be gathered from the disposition of steel on the Meuse-Argonne front. On this twenty-two kilometer front, on September 25, 1918, there was one gun every eight meters; in caliber, they ranged from 75 to 340 mm. Over 250,000 rounds were fired; in addition, the troops had to face the bombs dropped by the 508 planes in the operation, thousands of rounds fired by cannon and by the machine guns in the seventy-three tanks in action, and the innumerable thousands of hand and rifle grenades and bullets fired by the ground troops. Neither the soldiers nor the medical service were knowledgable enough to understand this storm of steel nor were they prepared or equipped to meet it.

Five days before the great Meuse-Argonne battle, there were only ninety-three ambulances available for all the American forces engaged. A day after the battle started, the entire Army in France

had been combed; but only 400 ambulances, sixty trucks and thirty sightseeing buses had been assembled. Evacuation of the wounded, in any war a complicated affair, was a grim business. Triage (screening patients for adequate disposition and treatment) was primitive. As a consequence many of the over 11,000 so-called "simple" casualties of the first phase of the Meuse-Argonne Offensive who were sent to such hospitals as Base Hospital No. 3 presented extraordinary medical difficulties. They arrived with their wounds infected, exsanguinated and in shock.

Base Hospital No. 3, with its own ambulances, transported rail-borne casualties to its compound. Its facilities were adequate for most demands, but during major operations like the Meuse-Argonne, its wards looked like a front-line aid-station. Casualties poured in in a steady stream and were bedded in the corridors, in the outdoor pavilions and along the walks.

But the organizational and medical skill upon which the Unit had been built stood it in good stead. Its reputation throughout its months of service, no matter how enormous the demands made upon it, remained unassailable.

The fall of 1918 was destined to be recorded in medical and military annals. The First World War was to end; the influenza pandemic about to begin. At a conference of the High Command on October 17th, General Ludendorff stated: "At the front the enemy's attacks of yesterday have not succeeded. The enemy did not come on with his usual ardor. If he had done everything he could we should have been beaten. At these points the fighting power of the Entente has not been up to its previous level. Further, the Americans are suffering severely from influenza." The suddenness of the influenza tidal-wave overwhelmed the Army medical services. Days and nights of anxiety followed one another for months. The wounded kept pouring in; the number of sick sky-rocketed; medical personnel was exhausted and depleted.

During the year that the Hospital was in operation at Vauclaire a total of 9,127 patients had been treated. Its compound had housed nearly 4,000 people at one time for medical or administrative purposes. For its professional work, headed by Drs. Lilienthal in surgery and Herbert W. Celler in medicine, the Unit as a whole received a commendation from the then Surgeon General, M. W. Ireland. Management of illness, battle wounds and injury was by no means



Unloading Litter Case at the Railhead



Walking and Litter Wounded at the Railhead



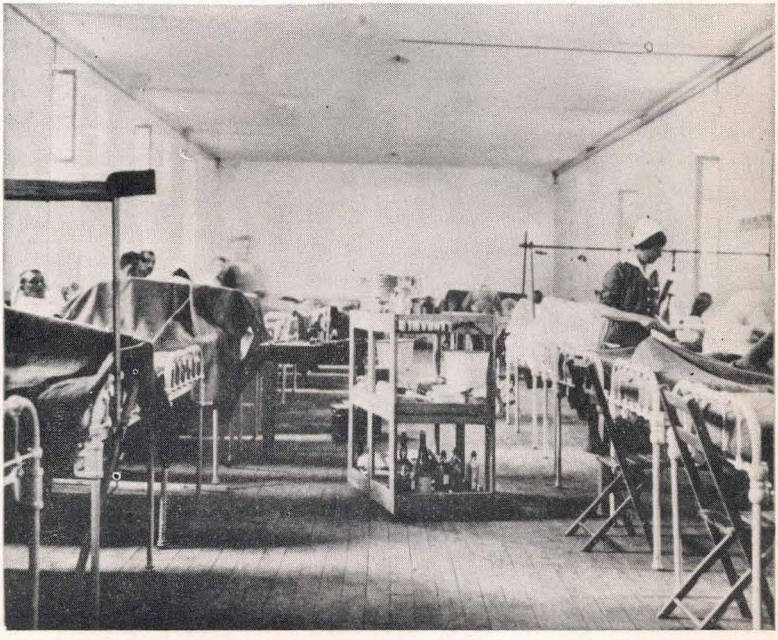
Classifying the Wounded at the Hospital



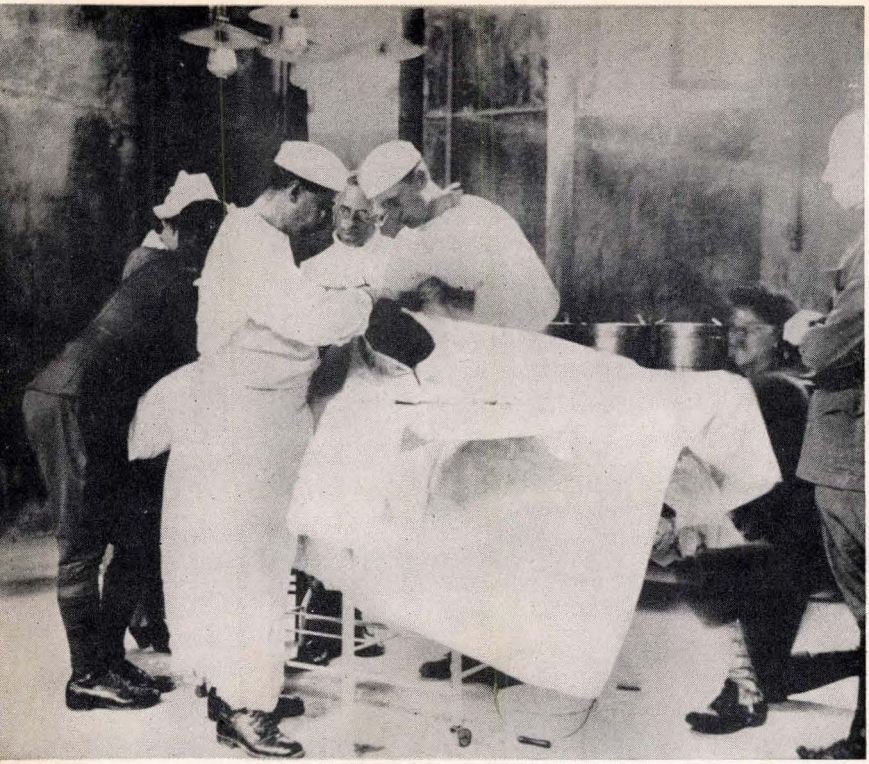
Unloading an Ambulance at the Entrance to a Ward



The Mount Sinai Base Hospital No. 3 in France, 1918



A *Ward*



Surgery at Base Hospital No. 3



Overflow of Patients into the Outdoor Corridors

their sole function nor the sole source of their distinction. Their work in epidemiology was also significant.

During the battle of Chateau-Thierry some of the troops reaching the Base Hospital directly from the front were found to be infected with bacillary dysentery. By means of rapid culture and identification, the exact type of dysentery was detected within twelve hours. The Chief Surgeon in the forward echelons was thus informed of the presence of the disease even before he was himself aware of its widespread existence. In this and in many other ways, the Hospital played an important role in the control of epidemic diseases among the troops.

Base Hospital No. 3 was recognized throughout the theatre for the service of its officers with other units as well. Dr. Lilienthal, a Lt. Colonel in 1918, was repeatedly detached from the Mount Sinai Unit and, as director of a surgical team, went to Evacuation Hospital No. 8, eight miles from Verdun, during the Argonne and St. Mihiel operations, and also to U. S. Army Hospital No. 101 to organize and carry out difficult thoracic surgery. He was cited and received the Distinguished Service Medal for his work. Dr. (then Major) Edwin Beer and his surgical team, consisting of Drs. Leo Meyer and Edwin Sternberger, were ordered to the American Hospital in Paris where they distinguished themselves. Baehr, then Executive Officer and Pathologist of the Unit, after organizing the Unit's own laboratories, was likewise detached to set up laboratory services in other base hospitals throughout France, notably in a group of seventeen near Bordeaux.

Base Hospital No. 3 continued to serve at full capacity long after the Armistice. In January, 1919, however, it was relieved by another unit to evacuate sick and wounded to the United States. Its officers and nurses started for home and release from active duty. Colonel Baehr remained with the troops. The Unit as such embarked at Bassens, March 14, 1919, for home. They landed at Newport News eleven days later and were transferred in a week on the *City of Montgomery* to Camp Upton, where they were honorably discharged.

The story of Base Hospital No. 3 is a large part, but by no means the full story, of Mount Sinai's participation in the War. In addition to its personnel serving with the Unit, there were a number of other doctors, nurses and laymen who volunteered their services in military and civilian capacities.

At the request of the Federal Government, Drs. Bernard Sachs, Charles Elsberg, Leopold Jaches and P. W. Nathan organized courses and trained members of the Medical Reserve Corps to prepare them for military service, in neurology, neurological surgery, roentgenology and orthopedics. Dr. S. S. Goldwater, the Hospital's Director, was constantly called upon and freely gave his services to governmental agencies in connection with hospital and sanitary-service planning problems.

At the request of the Adjutant General of the State of New York, the Hospital organized a Medical Advisory Board, headed by Dr. Emanuel Libman, to assist in the examination of registrants under the Selective Service Act. It worked in the following nine specialties: medicine, surgery, ophthalmology, dermatology, neurology, ear, nose and throat, dental laboratory and X-ray, and genito-urinary surgery. The Board served as a consultation center in these fields in difficult or doubtful cases arising out of the examination of registrants. It was called upon by local boards to aid in the detection of malingerers and draft-dodgers as well as to evaluate true claims of physical disability.

Throughout the War these and other activities, and the consequent depletion of the staff posed many serious problems for the Hospital. Volunteer help in virtually all departments kept the essential services going; the newly formed Social Service Auxiliary, organized largely by Mrs. Herbert H. Lehman in 1916, and headed by Mrs. Alfred A. Cook, was especially helpful.

Hope for normal progress in spite of the War, expressed in plans for renovating wards and operating rooms, modernization of the power plant, as well as completion of the building program projected in 1913, was deferred by the outbreak of the influenza epidemic in 1918.

The first victim of the epidemic was listed on September 26th; after that, the disease spread with terrifying rapidity for two months. The report of the Training School for the year 1918 records that it "played greater havoc with the nurses than with any other group. Eighty-five nurses contracted influenza, eighteen of whom developed pneumonia. Three of our pupil nurses, one a member of the graduating class, died within one week, and two graduate nurses later succumbed. At one time forty-two pupil nurses were off duty ill, many in most serious condition . . . [but] every nurse stayed faithfully at

her post without hours of rest or relief, often caring for others uncomplainingly when ill enough to be in bed and having proper care. Special credit should be given to the group of fifty-eight nurses admitted in the September class. After consulting the Training School authorities, the Superintendent of Nurses called the group together and suggested to them that their class disband and return home until the epidemic should be over. This suggestion was put to a vote. Every member of the class not only voted to stay and give all possible assistance, but insisted on being allowed to do so."

Renovation of two of the children's wards was suspended; they were used as infirmaries for the sick nurses.

By the time the influenza epidemic was under control and the Hospital was ready to resume normal operations, it found that the world with which it had to cope was startlingly different from prewar days. It could no more return to the relative simplicity of 1916 than to the pastoral days of its founding.

14

Postwar Progress: Surgery, Gynecology, Mental Hygiene

IN THE MID-TWENTIES BEGAN THE "BIG BULL MARKET" OF RUNAWAY prices and tremendous profits that lasted until the debacle of 1929, and is still the symbol of the decade. Fortunes were made and re-invested, lost, remade, and re-invested again. A few economists argued for restrictions on speculation, limitation of credit and other measures that would stop the market's wild careering. The Government refused to intervene, however, and the great illusion of unlimited ceilings and unlimited wealth was maintained until it ended in complete disaster.

At the end of the War, the building program Mount Sinai had outlined in 1913 and revised in 1916 was still incomplete. In the years immediately following the War, prospects for its completion were still uncertain.

Although both the 1913 plan and the modified plan of 1916 had been carefully calculated to accommodate the anticipated rate of Hospital growth without exceeding its resources, still further revisions were necessary at the end of the War. The new employees' dormitory had been finished; the new Laboratory Building was about to be completed. The Report for the year 1918 noted that both should be in use by 1919, and that construction on the rest of the program should begin no later than the spring of 1920. (Speed was necessary especially in construction of the Children's Pavilion to satisfy limiting provisions in the will of Lewis Einstein, whose bequest would subsidize the building.)

Waiting lists for private and semi-private beds frequently exceeded the number of beds available. The planned renovation of the wards had been virtually completed by 1918, however; the Hospital could resume work in complete quarters while the badly needed new ones were added. The postwar plans still envisioned a Private Pavilion of 130 rooms, a Children's Building to accommodate 100 children, conversion of the old Private Pavilion into a ward building and remodeling of the old Children's Pavilion to accommodate semi-private patients. The War had boosted construction costs to such an extent, however, that the original estimate of $2,150,000 (including the cost of land) had to be revised to $3,250,000.

It was in 1919 that the Hospital decided, for the first time, to put the responsibility of raising funds for major Hospital needs in the hands of the newly formed Federation for the Support of Jewish Philanthropies of which the Hospital had become a member. (Beginning at this time, the Federation was to play an increasingly significant role in the community financing of such member Hospitals as Mount Sinai.)

The Federation had set a goal of $10,000,000 to satisfy the reconstruction requirements of all its member organizations. By the end of 1919, $7,000,000 of the $10,000,000 had been raised; members of the Mount Sinai Board had contributed $700,000 of this sum. Besides this, the Guggenheim family increased their pledge for the building of the new Private Pavilion.

The 1919 Annual Report notes: ". . . The cost of this building in excess of the value . . . of the present Private Pavilion . . . was fixed at three hundred and fifty-nine thousand dollars. Wishing to defray the entire cost of the new building, including equipment, the Messrs. Guggenheim, in view of the increased cost of labor and material, have generously offered to add another two hundred and fifty thousand dollars to their gift, so that their total contribution for this purpose will be six hundred and nine thousand dollars, plus the value of the present private pavilion, or approximately one million dollars . . ."

The effect of the War and the postwar financial chaos was ruefully summed up in the Annual Report for 1920. "During all these years, from 1913 to 1920," the President wrote, "we did a great deal of figuring as to the cost of the work we had set out to do, and we figured with all the assistance of those best qualified to help us in

this task. All our figuring looks today as if it had been guesswork, and bad guesswork at that, but the discrepancies between our estimates and the actual facts are due to the entrance of new factors, beyond anybody's control, all of which may be summarized in one terse and incontrovertible statement, viz., that the cost of buildings such as we are erecting rose from 35-40 cents a cubic foot in 1913 to somewhat over $1.00 in 1920. This fundamental change in conditions explains why the total cost of our new construction will be somewhat in excess of $4,000,000, instead of the $2,300,000 previously considered sufficient for the purpose."

A major addition to the building program was the plan, announced in 1919, for an Auditorium Building. It was needed, the Annual Report said, for "annual meetings, the commencements of the Training School, meetings of the clinical society of the Hospital, addresses by distinguished medical visitors, lectures by members of the staff to residents and to graduate and undergraduate medical students, talks to nurses and to Social Service workers. In addition, owing to our advantageous location, it was believed that a Hospital Auditorium might serve a useful purpose in connection with Federation meetings and conferences, section meetings of the clinical conferences which are held in New York from time to time, meetings of various organizations that are concerned with hospital development and progress, and possibly lectures on health and hygiene in co-operation with the Board of Education, the Department of Health, Columbia and New York Universities, and various medical associations, including societies for the prevention of tuberculosis, the control of cancer and the promotion of health." George Blumenthal, President of the Board, and Mrs. Blumenthal, contributed $150,000 toward the erection of the Auditorium, to which they later added a similar sum. The interior was finished in a rough gray stone reminiscent of Renaissance interiors because of Mr. Blumenthal's interest in the period.

The scientific activities of the Hospital had not been halted by the difficulties attendant on its expansion. One of the notable contributions of the years just after the War was in gynecology. Gynecology at Mount Sinai had had, through the years before 1919, a long and constructive record. Under the leadership of the successive Chiefs of the Service—Emil Noeggerath, Mundé, Brettauer and Vineberg—the Hospital had established an outstanding reputation in gynecological surgery, pathology and research. The emphasis of the

gynecological staff was always first on the comfort and well-being of the patient. Brettauer, for one, was outspokenly opposed to any procedures which would put a patient in jeopardy or to examinations which would cause her discomfort, but its members also were interested in the new techniques and new ideas coming out of the laboratories.

One Mount Sinai gynecologist who combined these two points of view was Isidor C. Rubin, a graduate of the House Staff in 1908 after taking his medical degree from the College of Physicians and Surgeons in 1905. Rubin spent some time studying in Germany and Austria with a group of other young physicians from the Hospital. At the end of his study abroad, he returned to work at the Hospital. Ten years later, in April, 1920, he described his epoch-making uterotubal insufflation test to the Section on Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association meeting at New Orleans.

The test was deceptively simple. Rubin, like many other gynecologists, had been searching for some time for a way to investigate the causes of sterility in women without resorting to operation. His first investigations along this line had been made in Europe as early as 1909 but were, for all practical purposes, without result. On his return to Mount Sinai, he continued his work.

Before the First World War, the physiology of the female genital tract and the mechanism of conception were not too well understood. In the case of a barren marriage, the fault was usually laid to the wife; any remedial measures that could be resorted to were performed on her. The gynecologists' resources were limited, however; in the absence of obvious infection or inflammation, he could only make a thorough pelvic examination to find out whether the structures were normal or whether there was any obvious obstruction in the major parts of the genital tract.

The possibility of obstruction in the Fallopian tubes (which has since been found to be responsible for some 40 percent of cases of sterility in women) was rarely thought of; the tubes could not be seen, and manual examination revealed nothing significant about them. Great reliance, therefore, was placed on dilatation of the cervix, curettage, and the use of stem pessaries, on the theory that obstruction was more likely to be found in the cervical canal than any place else.

These measures were inefficient and unpredictable, however, and results were poor. Gradually, more and more gynecologists came to suspect that malformation or malfunction of the Fallopian tubes was actually responsible for more cases of sterility than they had thought. Still, they hesitated to investigate; the only practical method of determining the actual state of the tubes was by surgery, and an exploratory abdominal operation was too formidable a procedure to be undertaken lightly.

It was to this problem that Rubin, long persuaded that the Fallopian tubes were responsible for many baffling cases of sterility, addressed himself. The problem, as he saw it, could not be solved until some way of visualizing the tubes without opening the abdomen was found. He decided that this could best be done by outlining the tubes with some substance that could be seen on an X-ray plate. His first attempt was made, experimentally, with one of the then-new radio-opaque substances, Collargol. This, and the halogen salts he tried shortly thereafter, produced a reasonably good picture of the tubes. But use of such substances in human patients carried with it grave dangers of chemical irritation in the tubes themselves or in the abdominal cavity which, should the tubes prove open to their passage, they would eventually reach.

To avoid these dangers to the patient, Rubin decided to pass oxygen through the tubes. If the tubes were open, the oxygen would rise through the abdominal cavity to the diaphragm, producing an artificial pneumoperitoneum; the gas could also be seen on a fluoroscope screen. On the other hand, if the tubes were closed, the gas would be regurgitated.

This method proved to have a double advantage as an indicator of the patency of the tubes. Not only was the gas visible under X-ray, but its pressure on the phrenic nerve would produce a pain in the shoulder. (Although an exact explanation of this pain has not yet been made, it is thought that it is produced by referral through nerves that arise at the same place in the spine as does the phrenic nerve.) As more and more doctors have had experience with the test, the pain itself has come to be considered diagnostic. Later, Rubin substituted carbon dioxide for air and oxygen, because it is more readily soluble in blood than either oxygen or air, and its use would diminish the possibility of embolism.

The first Rubin test was performed on October 3, 1919, in the

X-ray department at Mount Sinai. The apparatus was not then perfected; enough oxygen was administered actually to distend the patient's abdomen. Very shortly thereafter, however, the rate of flow and the amount of gas were regulated so that the absolute minimum necessary for the test was passed through the tubes. In 1925, a kymograph was added to the apparatus, as was a safety valve to regulate gas pressure during administration of the test.

Rubin determined definitely that the fluctuations of the mercury column in the manometer (and their graphic representation) are due to tubal contractions. They depend on ovarian function, and hence vary with the phases of the menstrual cycle. All these observations, properly interpreted, added to the value of the test itself.

After a considerable number of tests had been made, recognizable patterns of contraction were established for normal tubes, partially blocked tubes and wholly closed tubes. The Rubin test, as a means of finding out the actual state of the Fallopian tubes, became standard procedure. Doctors everywhere began to use it.

In the course of the years, furthermore, it was found that the test itself actually acts as a treatment in some cases of partial blocking or stricture of the tubes. As a research tool, it has also proved valuable; it is used to study the physiology of the tubes in such conditions as functional amenorrhea, the menopause and X-ray castration. It is used to treat some cases of dysmenorrhea, to assay clinically the biodynamics of hormones and other drugs, to maintain tubal patency once this is restored, and as a substitute for laparotomy to improve the status of adherent or strictured tubes.

The Rubin test, which combined not only clinical insight and experimental ingenuity but contributions from X-ray technique and the science of physics, was but one example of the inventive energy pervading the medical sciences at the close of the War. Although the great speed of development and discovery in the basic sciences that had marked the earliest years of the century was slackening somewhat, younger men were consolidating the gains made then and co-ordinating newer knowledge into the body of medical resources.

One of the most notable of the general advances was made in 1921, in Toronto, when Frederick Banting and C. H. Best announced their discovery of insulin. This discovery opened a new era in treating diabetes. Diabetic patients, before the advent of insulin, had been doomed to lives of semi-starvation or to quick death. Insulin is first

mentioned in the Mount Sinai medical staff's report for the year 1923: "A committee has been appointed to take charge of the application of Isletin, the valuable preparation now available for use in special cases of diabetes."

Physicians interested in diabetes at Mount Sinai continued to investigate and improve the dietetic methods of controlling the disease which, before insulin, had been their only resource. Their program included special instructions to patients on the proper methods of cooking and buying food. This service, first given by social workers, was later expanded to include dietitians, who first explained and then supervised the patient's diet.

In gastroenterology, in 1922, Mount Sinai became the first American hospital to sponsor a radical new operation for ulcer. The subject of gastric surgery had been a controversial one for many years, ever since the first successful resection of the stomach for cancer, an operation performed by Theodor Billroth in 1861. One reason was that diagnosis of gastric ailments was difficult; X-ray methods were not fine enough to permit exact diagnoses, and chemical aids to diagnosis were just being developed. Furthermore, before the First World War, accurate classification of gastric diseases, and especially of the various types of ulcers, was not widely practiced. Mount Sinai, with the assignment of special beds for gastroenterological patients in 1914, had pioneered in the grouping of related surgical diseases. This enabled the Mount Sinai surgeons to give extremely close study to the end results of their work, whether favorable or not.

As in other American hospitals, patients with duodenal ulcer who came to Mount Sinai for surgery were subjected to a gastroenterostomy—creation of a new passage between stomach and intestine—with one or more variations or additions to the standard operation. The operation was almost universally considered the most satisfactory one for the condition.

Dissenters, however, pointed out one of its most serious drawbacks: although the original ulcer was often cleared up by this method, many patients subsequently developed gastrojejunal ulcers which left them worse off than before. Even though the proponents of this type of surgery admitted that secondary ulceration did occur, they insisted that so small a fraction of the patients (2 percent or less, was the claim) were so affected that the risk could be dismissed as of no real consequence.

Nonetheless, in the Mount Sinai laboratories, Drs. Burrill B. Crohn and A. O. Wilensky were carrying out physiological studies on the results of gastroenterostomy. Dr. Crohn has recalled: "Our results led us to doubt that the operation had a sound physiological basis, to question whether acidity was sufficiently reduced and mobility proportionately accelerated to warrant the use of the operation in any cases except those of pyloric stenosis." Crohn and Wilensky were asked by Dr. William Mayo, who heard of their work during a visit to Mount Sinai, to present and demonstrate their findings before a meeting of the American Gastroenterological Association. The Association gave them a rising vote of thanks, but the controversy over gastroenterostomy could not be settled so easily.

Meanwhile, in the meticulous follow-up clinics in the gastroenterological service at Mount Sinai, statistics were beginning to show that far more than 2 percent of patients on whom gastroenterostomy had been performed actually developed secondary ulceration. In one series, in fact, as many as 34 percent of the patients were found to have developed gastrojejunal ulcers—a situation that was more alarming than controversial.

In the summer of 1922, Richard Lewisohn, then an Associate Surgeon to Dr. A. A. Berg, who was in charge of the gastroenterological work, went to Europe on vacation. There, he investigated the work of Dr. H. Von Haberer in Innsbruck, Austria. Von Haberer, faced with the same unsatisfactory results as the Mount Sinai group, had discarded gastroenterostomy for ulcer in favor of the far more radical subtotal gastrectomy (removal of as much as ⅘ of the stomach as well as the ulcerated site). Von Haberer's technique and results impressed Lewisohn deeply. On his return to the United States, he described the new operation to Berg. Berg, a fabulously deft technician with a consuming interest in gastrointestinal surgery, immediately adopted the new operation. Results were more than satisfactory almost from the beginning.

The medical profession by and large, however, did not accept the new procedure. Berg and Lewisohn presented their arguments and reported their favorable results at many medical meetings throughout the country. Although many surgeons thought that the operation was far too drastic because so much tissue was removed to cure such relatively small lesions, Berg and Lewisohn argued that only by this means could excess gastric acidity be prevented. They insisted

that elimination of acid was, with removal of the ulcer, a primary object of the operation. The controversy continued for a number of years but gradually, as surgeons in other institutions reported good results with it, subtotal gastrectomy was accepted as a standard surgical treatment for ulcer.

Of all the specialties that began to develop in medicine after the turn of the century, one of the most important was pediatrics—a field in which Mount Sinai had long been interested through the pioneer pediatrician Abraham Jacobi, his wife, Dr. Mary Putnam Jacobi, Dr. Sara Welt, and others of its early staffs whose prime interest had been in children. The early pediatricians, however, had little choice but to treat children like small adults.

Many children's diseases either were not understood or simply could not be treated with the resources available. The physiology of childhood was largely unstudied. The science of nutrition was primitive; the need for supportive therapy, particularly necessary for sick children, was unrecognized. Only after blood transfusion had been perfected, after the need of the body for fluid and salt balance was understood, after special instruments which allowed more accurate exploration of the child's body had been developed, could pediatrics be regarded as a science in itself. A great contribution was made by the pediatricians who crusaded for pure milk, helped set up milk stations, backed pasteurization ordinances in the cities, and so on. The cause of health for children was also advanced by those doctors who became interested in the new ideas about education and recreation for children which began to develop just before the First World War.

Among these was Ira S. Wile, a physician, educator and public servant who joined the Mount Sinai staff in 1904 after receiving his medical degree from the University of Pennsylvania in 1902. Wile turned to psychiatry early, bringing to it his profound interest in social problems and education. He was energetic, active and well-informed, one of the founders of the journal *The Nervous Child*, and a firm believer in education as the basis for the psychotherapeutic approach to maladjusted children. His main interest was in behavior problems, but he was also expert in nutrition and hygiene.

Wile served as Commissioner of Education for the City of New York from 1912 to 1918; as Commissioner, he did much to emphasize the importance of mental hygiene in the schools. He founded the

Manhattanville Day Nursery, served on the New York Milk Commission and the School Lunch Commission, was a director of the Federation for Child Study, organized the Round Table of Speech Improvement, served as Chairman of the Sociological Section of the American Public Health Association, and taught for many years at universities and medical schools in the New York area. Wile died in 1943. He is remembered as a man whose interest in medical and social progress led him to act where others, in the name of discretion, hesitated.

Wile's clinical career was identified primarily with Mount Sinai. There, in June, 1919, he opened the first child-guidance clinic in the United States that functioned as an integral part of a hospital's pediatric service. (One other such clinic had been in existence previously, but it was conducted on a research basis only and was not connected with a hospital.)

Wile's clinic was called the Children's Health Class and had its quarters in the new Children's Dispensary Building. It was supported by the income of a fund then unique in hospital endowments: the Babette Lehman Fund, which was set up in 1912 in the amount of $100,000 for the advancement of preventive medicine, and an annual grant from Mrs. Philip Roth. The Annual Report which recorded establishment of the Children's Health Class noted: "Preventive medical work had long been a part of the Hospital's activities; many of the investigations that are carried on in the laboratory have as their object the discovery of means for the prevention of disease, and a considerable part of the activities of the Social Service Department has to do with disease prevention. All of this work, however, has been regarded as incidental to the major work of the Hospital, which concerns itself with treatment and cure rather than with prevention." The Children's Health Class was the first channel through which preventive medicine was integrated with the rest of the work of the Hospital on an equal footing.

The work of the clinic was well described in the same report: "The attention of the class is directed chiefly to the periodic examination of children between infancy and school age. This is a period during which the health of the poorer children is commonly neglected and when physical mismanagement may readily implant the seeds of disease, against which the Department of Health and other agencies subsequently struggle in vain. It is our aim, by bringing children

into the Health Class, to keep them out of the clinical departments of the dispensary. . . . Through the work of the Health Class, minor physical defects are noted at a time when they can be easily corrected; such conditions as underweight, etc., are dealt with chiefly by educational means, and the statistical charts of the department show convincingly the success of the department in increasing the vitality of the children. The class aims to and actually succeeds in relieving conditions of malnutrition through dietary modifications; that is, by educational methods rather than by means of medical relief. . . ."

Most of the clinic's patients were between two and six, an age group whose health needs were repeatedly emphasized in the surveys that reflected the increasing concern both of medicine and of government with the welfare of children. (Shortly before the Class was instituted, the New York State Reconstruction Committee had urged special attention to pre-school children.)

The Social Service Department report for the year 1919 asserted, however, that in the Children's Health Class "The family, rather than the child, is the unit of treatment. . . . The conception of health is the broadest possible, involving not only the physical, but also the mental and moral growth of the child. . . . The direct relation of the physician and the patient is of the utmost importance. . . ."

Wile himself described it in an article in *Modern Medicine:* "The Health Class is, in fine, an attempt at applying humanized and socialized medicine, employing all medical, psychological, educational and economic measures to build up a new generation. It is founded on the positive idea of health, rather than the negative idea of disease; it visualizes physical, mental and moral potentials; it shifts the emphasis of dispensary work to prevention rather than cure; it aims to make health contagious. . . ."

In 1923, the Hospital invited another pediatrician of renown to serve as Pediatrician to the Hospital. This was Dr. Bela Schick, born in 1877 in Hungary and for many years professor at the University of Vienna. Dr. Schick left Vienna during the chaos following the First World War, and was promptly invited to join the Mount Sinai staff, many of whose members he had known in Europe.

Dr. Schick (who received a license on recognizance because of his international eminence and the importance of his contributions to

medical science) had directed his major efforts against a disease that had been the scourge of children for centuries—diphtheria. This terrifying disease claimed the lives of thousands upon thousands of children; it developed insidiously, spread from child to child like the plague it was, and found medicine virtually helpless against its onslaught.

In 1913, however, Dr. Schick developed the next best thing to a cure: he found a way to determine which children were susceptible to the disease and which were immune. Most babies, he knew, derived a passive immunity from their mothers; but this immunity lasted only a year or so. Immunity for the others could only be achieved by other means—either by an attack of the disease itself, or by injection of toxin-antitoxin (and later toxoids). If all children were immune—which would be the ideal situation—the disease would disappear. But the first step had to be determination of those already safe.

The Schick test—which has, since it was first described, become a standard procedure in millions of children's lives—consisted at first of the injection, under the skin, of 0.2 cubic centimeters of salt solution containing one-fortieth the minimum lethal dose of toxin derived from diphtheria organisms. (This was later modified to 0.2 cubic centimeters of salt solution containing one-fiftieth the minimum lethal dose of diphtheria toxin.)

In a susceptible patient, a brownish stain appears at the site of the injection some forty-eight hours later; the stain remains for any period from a week to two months or so. Appearance of the stain is a sure indication that immunization is necessary (immune children show no reaction).

Another unusual clinic was established in 1923, under Clarence Oberndorf, who at that time was an Adjunct Neurologist on the Hospital staff and President of the American Psychoanalytic Association. (Psychiatry as part of the Neurological Service had been carried on in the Hospital since 1913.) The new clinic which he headed was one of the first psychiatric clinics to be set up in the Out-Patient Department of a general hospital in New York. The object of the clinic was as much to help its patients adjust themselves to society as to provide treatment for their emotional and mental difficulties.

Patients were referred to the Clinic from other Out-Patient clinics, from doctors outside the Hospital, or from the Social Service Depart-

ment. For the most part, they did not need hospital treatment, but those who did were admitted to the neurological wards. Most of the patients showed neurotic disturbances, rather than mental damage based on physical causes or constitutional inferiority. Adolescent patients were given prophylactic treatment to forestall further breakdowns.

Many of the patients were people who, under normal circumstances, could take care of themselves in illness; their family responsibilities were such, however, that the whole family structure would collapse under the strain of caring for mental illness. Brief psychoanalysis (half-hour sessions three times weekly) was used in appropriate cases. The Out-Patient Department's Occupational Therapy facilities were also available to patients. The Clinic concentrated, however, on re-educating its patients to meet the conditions of their lives without untoward emotional reactions.

Perhaps the most remarkable aspect of the Children's Health Class and the Mental Health Clinic was their advanced approach to their subject matter; preventive psychiatry was not to be practiced on a large scale for a number of years.

Other divisions of the Hospital, however, were doing equally notable work, both in clinical and laboratory medicine.

15

Postwar Progress: Research and Education

MOUNT SINAI'S LONG-STANDING RECORD OF HOSPITALITY TO THE CLINICAL investigator and the rapid development of new research techniques led to a number of discoveries and innovations in the years immediately following the War.

Outstanding among the innovations was the Hospital's decision to employ, in 1926, full-time salaried laboratory chiefs, experts in pathology, chemistry and bacteriology. As a consequence of this step —a most unusual move for a hospital not part of a university center —Mount Sinai's laboratories assumed, to some extent, the character of academic laboratories. Yet they did not lose the intensity of clinical purpose which had marked them from the first.

Although the Hospital's policy toward laboratory activity was, in general, one of steady encouragement, the question of how far it was feasible for a general hospital to support research not directly aimed at immediate solution of clinical problems occasionally arose. The increased refinement of the medical sciences and pressing demands for progress made it impossible to draw a definite line marking the end of the clinical and the beginning of the "pure." Nonetheless, during the War years and just afterward, when costs were skyrocketing and demands on the Hospital for clinical service were steadily increasing, the problem pressed for solution.

A paragraph in the 1919 Report stated both the dilemma and its solution concisely: "Students of hospital policy are not of one mind

with regard to the extent to which research work should be carried on by general hospitals. The rich clinical material which one finds in a general hospital affords splendid opportunities for laboratory research in connection with clinical cases, and it seems plain that it is the function of every important general hospital to contribute, through research work, its share to the advancement of medical science. However, there are those who contend that money . . . contributed to the hospital for the relief of sickness . . . must be directly and not indirectly applied to that end; and those who hold this view are inclined to find fault when funds primarily intended for the care of the sick are used for the indirect relief of sickness through scientific research. The two opposing views are very happily reconciled when research . . . is supported by funds specially designated for the purpose . . . [at Mount Sinai] a special fund has been recently established for scientific research, and the work of research will be permitted to expand only insofar as money is contributed for this special purpose. . . ."

A strong force behind the steady development of the Mount Sinai Laboratories was the Hospital's long-time and devoted trustee, Adolph Lewisohn. Lewisohn joined the Board in 1898 and remained a member until his death in 1938.

One of the most notable businessmen and philanthropists of his time, Lewisohn came to the United States in 1867 from his native Germany. He was President of Adolph Lewisohn and Sons and had extensive and successful interests in mining developments in many countries. He was the friend and adviser of many famous men; a dedicated issue of the *American Hebrew*, marking the fiftieth anniversary of Lewisohn's arrival in the United States, included tributes from President William Howard Taft, from New York's reform Mayor, John Purroy Mitchel, from Senator Dwight W. Morrow, from President Nicholas Murray Butler of Columbia University and from other government officials, public servants and philanthropists.

Lewisohn's interests were as varied as his friends. He decided early to share his fortune during his lifetime, and chose a very large number of channels through which to do so. "My aim in life," he said, "has always been to do something that in my opinion makes an improvement in the world or in the people, to improve the condition of people in all walks of life. . . ." In achieving this aim, he was active in bringing about prison reform in New York State penal

institutions; he devoted much energy and vast sums of money to orphaned and friendless children; he took part in a very large number of educational and civic enterprises.

Probably the two endeavors with which his name will be longest associated, however, are education and the arts—especially music, which he loved. (He was an enthusiastic amateur musician himself, and it was at his house that the great physicist, Dr. Albert Einstein, first played in the United States in an amateur quartette.) He originated the world-famous summer concerts at New York's Lewisohn Stadium which he gave to the College of the City of New York; he founded an educational course in chamber music at Hunter College and encouraged the careers of many musical artists. In art, he was a patron and collector of taste and foresight. His particular interest was in impressionist painting, but he also collected notable sculpture, much of which he gave to the Brooklyn Museum. In education, Lewisohn gave $300,000 to the School of Mines at Columbia University, his own library of rare German books to the College of the City of New York, and large sums to such organizations as the Hebrew Technical School for Girls, the Committee for Lighthouses for the Blind, the Scientific Foundation at Hamburg, Germany, and the Wilmer Institute of Johns Hopkins University Medical School.

One of the most important of his scientific benefactions was his support of the Laboratories at Mount Sinai. Altogether, he gave the Hospital, during his lifetime, sums of something like $400,000. Most of this money was earmarked for laboratory use. Because he was scientifically-minded and technically expert, Lewisohn had been impressed by the importance of research in medicine from the time he first joined the Hospital's Board. As he watched the steadily intensifying impact of the laboratory on clinical medicine during the great era of bacteriological and chemical development at the end of the nineteenth century, he became convinced that a first-rate hospital must also be a first-rate research center. The result was that when Mount Sinai moved to 100th Street, Lewisohn volunteered to supply the funds for constructing a separate laboratory building, primarily for pathology, and offered, in addition, funds for equipping this building and a fund of $5,000 a year for five years to be used for salaries for those engaged in scientific work. In 1916, when the Hospital's expansion called for a new laboratory building, funds for its equipment again came from Lewisohn.

Later, Lewisohn added $150,000 to his gifts; this sum represented the difference between the costs of the old pathology building and the new laboratories (which were named after him).

With this impetus and an increasing public appreciation for the importance of research, a number of funds for research purposes were established at the Hospital. By 1927, they included the Henry and Emma Rosenwald Foundation ($100,000); the Kops Foundation for Pathological Research ($60,000); the Max Nathan Laboratory Fund ($30,000); the Elias Asiel Research Fund ($21,000); the Rosie Bernheimer Memorial Fund ($10,000); the Morris Fatman Medical Research Fund ($10,000); the Etta C. and Arthur Lorsch Fund ($10,000); the Elsie and Walter Naumburg Fund ($10,000); the Virginia I. Stern Fund ($10,000); the Herman Younker Fund ($10,000); and the Arthur E. Frank Medical Research Fund of $7,500.

Besides these, during the year 1927, a number of other funds were set up. They included: the Lorsch-Sachs Endowment Fund ($60,000) and the Morris J. and Carrie Hirsch Fund for the study of cancer ($10,000). Only the income of these funds was available for use. Other gifts, however, specified that the principal could be used. Most of these were for specific research projects. They were: the Samuel Keller Jacobs Fund, for research on Thrombo-Angiitis Obliterans for three years ($3,000 per year); the Lucius N. Littauer Foundation, for the study of inflammatory diseases of the heart and blood vessels, for three years ($3,700 yearly); the L. S. Frankenheimer Fellowship Fund in Pediatrics ($600); and the Nathan Hofheimer Fellowship Fund, for research in anaerobic infections ($4,000 yearly). Other gifts included $6,000 from the Manhattan Research Foundation for Bacteriological Research; a total of $4,000 for research in gastroenterology from four donors: $600 given anonymously for work on anaerobic bacteria; a gift totaling $8,450 from five donors for general research; $6,750 from four donors for work on pneumonia; and another special fund of $5,000 for research on typhoid, given by four donors. The final item was $25,000 for general research work from the Eugene Littauer Fund.

In 1923, the Laboratory staff numbered twenty-two professional members—twenty-one of them physicians. This staff, which included ten holders of fellowships, worked in clinical pathology, neuro-pathology, serology, surgical pathology, bacteriology and physiological chemistry. In addition to the work of the regular staff, more than

sixty "volunteers" worked long hours in the laboratories. These men were physicians, members of the clinical staff of the Hospital, yet sufficiently interested in laboratory work to devote much time and energy to it. In 1924, when the Laboratory staff numbered twenty-four, total expenditures for routine activity were $32,000; for research, $17,000 was spent. These sums were, for that period, extremely large investments for a hospital to make in medical activities away from the bedside.

The amount of money spent, however, is an excellent indication of the intense enthusiasm evidenced by so many staff members, both in the Laboratory and on the clinical side, for progress in medicine. None of the staff members, including the chiefs of Laboratory divisions, received any significant remuneration whatever. Dr. Mandlebaum's income during most of his service derived from his private practice in pathology; toward the end of his career, he received a salary of $2,400 a year for the work he performed for the Hospital. Dr. Bookman's income was entirely private. Dr. Libman was eventually given $900 a year for conducting the bacteriological work; he paid a secretary perhaps three or four times this amount from his own pocket. Dr. George Baehr, after 1914 in charge of morbid anatomy and autopsy pathology, received a stipend of $600 as George Blumenthal, Jr., Fellow in Pathology for two years at the beginning of his laboratory career.

The same situation prevailed among the other medical personnel. In other words, the private practice of medicine was largely sacrificed to these physicians' interest in developing laboratory methods, to their determination to accumulate the basic knowledge necessary to the best development of clinical medicine.

Many of the laboratory staff members often worked until midnight or later, after arriving at the Hospital at eight in the morning. They worked in cramped quarters, in basements or wherever there was space, with only meager assistance or with none at all. They took time only now and again for brief office hours or rare calls on patients. Their rewards came in the form of permanent association with the progress of scientific medicine and, more important, in the maintenance of an extremely high level of clinical standards in the Hospital. (This resulted not only from the interest of the staff men themselves, but because, all else being equal, preferment in clinical promotions was given to men with a laboratory background.)

In spite of such devotion, however, the burden was becoming intolerable. The number of routine tests, analyses and investigations that had to be done grew yearly; the number of promising avenues of research to be explored constantly multiplied. Increased knowledge demanded constantly increasing rigor in applying it; ever more critical standards were set up for those who hoped to contribute fresh facts. Signs that the era when the Hospital's scientific progress could be safely left in the hands of part-time enthusiasts was drawing to a close.

The old organization, however, was retained for several years. Then, in 1926, Dr. Mandlebaum died—ironically, of subacute bacterial endocarditis, the disease so closely associated with Mount Sinai and with the name of Emanuel Libman, who had been his colleague for so many years. At the same time, Dr. Bookman announced his intention to retire. This combination of circumstances, plus the fact that Dr. Louis Gross had been appointed, in 1925, as assistant to Mandlebaum, made possible a complete reorganization of the laboratories.

Gross was a very young man—in his thirtieth year, in fact—when he came to Mount Sinai. He was a friend and protégé of Libman, who had recommended him because he combined an interest in administrative work with an interest in clinical research, especially on diseases of the heart. In 1921, Gross had published an important study in his chosen field, *The Blood Supply to the Heart*, which was considered to be an extremely important contribution to the knowledge then available.

Gross was an enthusiastic scholar, an accomplished musician and an artist of professional skill. He was an honor graduate of the McGill University Medical School; after receiving his medical degree, he spent several years studying blood circulation by the then-new methods of X-raying the organs after having injected them with radio-opaque materials.

He studied in London, at the Royal College of Surgeons and the University College; later, he worked in the research department of the New York City Board of Health on problems in bacteriology and immunology. He then spent some time as head of the laboratories of the Brownsville and East New York Hospital (later the Beth-El Hospital).

Gross maintained his fundamental interest in the pathology of the

heart throughout his career; the two diseases—aside from general problems of circulation—which most fascinated him were rheumatic fever and bacterial endocarditis. For his investigations, both the American Medical Association and the Canadian Medical Association awarded him medals. His career was cut short, however, in 1937, when he died in an airplane accident while enroute to California, where he planned to live and work during his later years.

Before his death, however, Gross had participated actively in the reorganization of the Mount Sinai laboratories. Neither Libman nor Baehr, in spite of their long and intimate association with the laboratories, felt that it was possible for one man to shoulder the entire responsibility for administration, research and routine clinical work. They and other responsible officials wanted to bring in experts to head the various laboratory divisions on a full-time, salaried basis. This point of view was most unusual at the time even though it was logical for a laboratory organization as large and busy as Mount Sinai's. Mount Sinai was certainly among the very first major hospitals to organize its laboratories on a rational basis. Gross undertook the administrative duties; three experts were appointed to head the three main laboratory divisons—pathology, bacteriology and chemistry.

In pathology, the choice fell to Dr. Paul Klemperer, who still holds the position. At the time of his appointment, he was associate pathologist at Postgraduate Hospital. Klemperer, who was born in Vienna and graduated from the University of Vienna in 1912, had come to the United States in 1921. Most of his training and experience had emphasized the importance of "pathological anatomy" as the keystone of medical investigation; one of his teachers was the eminent Carl Sternberg. The same emphasis prevailed at Mount Sinai; when Klemperer first assumed his duties, the autopsy rate had reached the surprising figure of 60 percent. By the end of the twenties, it stood at nearly 80 percent.

Klemperer's prime responsibility as full-time pathologist was to be in morbid anatomy. His personal research has emphasized the diseases of connective tissue, and especially lupus erythematosus; the cardiac manifestations of the disease were described by Emanuel Libman and Benjamin Sachs at Mount Sinai in 1924. With George Baehr and Herbert Pollack, Klemperer has described its effects on connective tissue.

When Klemperer joined the staff he told Dr. Goldwater that, although he could not make specific promises as to productive research, he would pledge full co-operation with all other departments. A pathologist, Klemperer feels, is useless working in isolation. Clinicians must benefit directly and continuously from his work. The result of this policy has been a close integration of activities in the Pathology Laboratory with clinical work in the Hospital and an unusually intense educational program revolving around pathological findings.

Gregory Shwartzman, who holds the M.D. degree from both the University of Odessa (1919) and the University of Brussels (1920), and studied at the Lister Institute in London, was appointed as the Hospital's first full-time bacteriologist. Shwartzman, an expert clinical bacteriologist, was also known as an original research worker. Although, as in any hospital laboratory, his main concern has been with all phases of clinical bacteriology, his name is permanently associated with research on a broader scale, and especially with the Shwartzman phenomenon. The phenomenon was discovered in the course of investigations into the effect of bacteria on the body and methods to treat bacterial infections. The principle behind the discovery was the fact that disease-producing bacteria do not, generally speaking, produce their effects by direct action, but by liberating toxins which diffuse throughout the body.

It was relatively easy to detect the toxins produced by many common bacteria and to produce antitoxins against them in the Laboratory. But many other organisms, also quite widespread, appeared to produce no effects on laboratory animals when attempts were made to infect them. Shwartzman discovered, however, that when two successive injections of some of these bacteria are made, a characteristic reaction, marked by hemorrhage at the site of the injection and in some internal organs, takes place. The noteworthy aspect of the phenomenon is that the drastic reaction occurs only after the second injection.

In experimental demonstrations of the phenomenon, for example, typhoid bacillus is injected into a rabbit's skin; this is called the "preparation" dose. No visible effect follows.

But twenty-four hours later, a similar injection is made into the animal's blood stream (the "precipitation" dose). Within a few hours, a severe hemorrhagic lesion appears at the site of the first injection. When the animal is killed, the characteristic and fatal in-

ternal hemorrhages are seen. Demonstration of the phenomenon led to much profitable work with bacteria such as those which cause whooping cough, post-operative peritonitis and similar infections.

Further investigation of the phenomenon since 1928, the year it was discovered, has pointed to the possibility that it may explain the way many ill-understood symptoms and diseases, especially those involving internal vascular damage, are produced. Because the phenomenon can also be elicited by successive injections of two kinds of bacteria, the later work also suggests that some diseases may have a multiple etiology—that they may be caused by a combination of agents, known or unknown, which produce their effects in accordance with the operation of the Shwartzman phenomenon.

Dr. Michael Heidelberger, then of the Rockefeller Institute, was engaged to head the chemistry laboratories. Heidelberger's name, at the time he joined the Mount Sinai staff, was known for his contributions to the synthesis of tryparsamide, a powerful and useful arsenical. After a brief period of service, Heidelberger resigned to take a position at Columbia, and was replaced by Dr. Harry Sobotka.

Sobotka, son of a Viennese physician, had joined the Rockefeller Institute in 1924. He combined an expert knowledge of clinical chemistry with a strong bent for original research. Sobotka set about organizing the Chemistry Department primarily to supply the clinical services with all the routine chemistry needed for correct diagnosis and proper supervision of therapeutic measures. Research, the second function of the Department, flowed out of clinical problems. The third function of the newly reorganized Department was to act as consultant to other clinical and laboratory divisions on chemical problems.

Sobotka himself has been for many years much interested in the chemistry of body metabolism, especially that of bile and related body compounds. Later, he published a definitive two-volume work, *The Physiological Chemistry of the Bile*. Because bile is a steroid—one of a group of important compounds including vitamin D, the sex hormones and other powerful substances—Sobotka's work with it led to some important investigations of steroid chemistry. He has also published a second major book on the subject.

The chemistry laboratories at Mount Sinai participated actively in the rapid growth of clinical chemistry during the twenties. A number of valuable analytical procedures were developed there, including

methods for the microanalysis of various sugars, for vitamin E, the female sex hormones and salicylic acid. A microbiological assay for inositol was also developed there, as was a physical method for the analysis of vitamin A.

Co-ordination between the laboratories and the clinical departments became more necessary and more productive as each year brought more and more complex knowledge and procedures to all the branches of medicine. It was during this period, in fact, that the pattern of "group research"—research performed by teams of specialists rather than by one or two men—began to emerge at Mount Sinai, as well as elsewhere. It was a somewhat confused time in science, and especially in its biological branches; the influence of pre-war methods and ideas was still strong, but the outlines of the important changes to come could be faintly discerned. Much of the research done during this period was tentative and preliminary in character; much was sound but necessarily incomplete. It had to wait for the development of contemporary methods and ideas to be brought to fruition and placed in perspective in the over-all medical picture.

The Mount Sinai laboratories performed much valuable work during this time, much of it involving long-term collaboration between members of the various laboratory staffs, or between laboratory men and clinicians. A list of outstanding contributions of the Hospital includes, for instance, the first complete description of an important brain tumor by Dr. Israel Strauss, the Hospital's neurologist, and Dr. Joseph Globus, the neuropathologist. Although the work was virtually complete by 1924, the first major presentation was made by Dr. Globus at the International Neurological Congress in Switzerland in 1931. This tumor Strauss and Globus named *spongioblastoma multiforme* (it is now called *glioblastoma multiforme*). One of its chief characteristics is its acute onset; it is the most rapidly growing and malignant form of glioma. It can affect any part of the brain and probably accounts for almost half of all intracranial growths.

This work was done in the Neuropathology Laboratory which, early in the twenties, was contained in a basement room; its work had increased so by 1931 (it was one of the country's most active) that it had to be moved to much larger quarters in the old laboratory building. The main concern of the Neuropathology Laboratory was with morphology in its bearing on clinical diagnosis and treatment.

With this emphasis, the men working in neuropathology were able to make numerous important contributions both to neurology and to neurosurgery.

In 1924 was published another significant paper describing an obscure, though generally benign disease—generalized giant lymph follicle hyperplasia of the lymph nodes and spleen (*follicular lymphoblastoma*). This work was done by Drs. Nathan Brill, George Baehr and Nathan Rosenthal, who were the first to describe the disease and its course and to differentiate it from the cancerous diseases it resembles.

In 1928, Drs. Robert Frank and Morris A. Goldberger published their work on the female hormones in the blood. Dr. Frank, who died in 1949, was one of the leading gynecological scholars of his generation. He took his medical degree from the College of Physicians and Surgeons in 1900, spent three and a half years on the Mount Sinai house staff, and followed this by a period of further study in Europe. He spent most of his career at Mount Sinai; after the First World War, however, during which he served with Base Hospital No. 3 as Captain and then as Major, he had to spend some years in Colorado for his health.

In 1925, he returned to Mount Sinai to continue his work in pathology, endocrinology and gynecology; it was chiefly at his instigation that a special endocrinological research laboratory was established. Frank had been interested in endocrinology long before the first war. He was among the first to demonstrate the female sex hormones in the follicular fluid of the ovary and the circulating blood, and developed a test, named after him, to find the hormones in the blood. As early as 1907, he had confirmed the presence of hormones in the placenta by injecting placental extracts into laboratory animals, and in 1911 he published a classic treatise on ovarian function.

On his return to Mount Sinai, he brought with him the results of his work in Colorado on the isolation of alpha-esdradiol. He came very close to success before the Nobel Prize-winning work on the same problem by Edward Doisy and his colleagues was announced. Frank also developed a chick-comb test for the bio-assay of androgen and a rapid rat test for pregnancy.

In surgery, Frank's name is linked with that of Dr. Samuel H. Geist, himself a gynecological endocrinologist of note. Together,

Frank and Geist developed a practical operative technique for the construction of an artificial vagina.

Much of the stimulation for the work done by individual staff members of the Hospital during these years was derived from the exchange of ideas at the Hospital's famous Clinical Pathological Conferences.

Throughout the years since the Pathology Laboratory had been established, groups of interested staff members had made a point of discussing the findings in patients who came to autopsy, comparing them with the clinical diagnosis and discussing the reasons for whatever disagreement there was between the two. Such discussions, invaluable from the standpoint of increasing knowledge about disease and improving the clinicians' ability to diagnose and treat it, were, before the First World War, more typical of European hospital practice than of American. Many Mount Sinai staff members who had studied abroad carried their enthusiasm for these conferences back to the United States with them.

Although there had been Clinical Pathological Conferences before the War (the first, in 1905, was addressed by Sir William Osler) at least once a month, they were not put on a formal, organized basis until the end of the War. Then, on the return of Dr. George Baehr from military service, a regular schedule of conferences was set up (in the fall of 1919). They were held on Friday afternoons in the autopsy room of the Pathology building. They were instantly popular. Both the President's Report and the Report of the Medical Board for 1919 note that attendance reached 150 or more. The Hospital Staff and the Dispensary Staff attended in force, and physicians from outside the Hospital also crowded in, many of them coming from communities outside the city.

When the new series of Conferences was begun, Baehr, as Associate in Pathology, conducted them alone. The Mount Sinai meetings followed a different plan from the famous meetings organized by Dr. Richard Cabot at Massachusetts General Hospital. Cabot's system was to review the clinical findings in the cases to be presented, without previous knowledge of the pathological picture. The pathologist would then present his data and point out the error in diagnosis, if there had been one. Discussion on how to avoid such errors followed. This method proved to be most effective in the instruction of undergraduate students.

At Mount Sinai, however, the Clinical Pathological Conferences had to serve as an educational medium for the staff members and for the practicing physicians of the community. As a result, Dr. Baehr has recalled, they "had to be geared in a different direction . . . I presented the cases from a clinical standpoint, often without revealing my knowledge of the final pathological findings. Then, having given the clinical sequence of events, I revealed the pathological findings, and followed this by a reinterpretation of the clinical course and criticisms of methods of procedure in diagnosis and treatment." General discussion followed.

This method was eminently successful with its special audience; attendance at the meetings increased yearly. In fact, when the nearby Academy of Medicine established its Friday afternoon practical lectures the Hospital was asked to hold the conferences on another day of the week because the Academy's lectures and the Hospital's Conferences attracted the same audience. The Conferences were transferred to Wednesday afternoons.

Quarters for them continued to be so cramped, however, that their value as a teaching medium was seriously threatened. The auditors had to jam into the small autopsy room, crowding around the table from which the discussion was being conducted. In 1925, with funds given by Martin Erdmann, in memory of Isaac S. and Sarah Erdmann, an amphitheatre was constructed. The walls of the original autopsy room were extended; benches seating 135 were constructed step-fashion around them. Even these expanded quarters, however, shortly became too crowded for comfort; the audience spilled over into the halls. The conferences eventually had to be moved to the Blumenthal Auditorium, where the hundreds of physicians who attended them regularly could be accommodated.

In 1927, Dr. Baehr retired as Associate in Pathology to devote more time to his clinical work. Meanwhile, Dr. Klemperer had taken over as full-time pathologist. The duties of conducting the Conferences were thereafter divided between the two men. Baehr undertook to present the clinical picture of the case under discussion; Klemperer presented the pathological findings. Because of the nature of the audience—virtually all practicing physicians, many of vast experience —all the material was carefully prepared in advance. Together, Baehr and Klemperer went over every detail of the case, studied the microscopic slides, looked over the pathological findings, and planned an

integrated presentation that would bring out the significant features of the case. In particularly interesting or obscure cases, they even "planted" questions to be asked by some of the physicians in attendance, in order to stimulate discussion. The discussions at the Mount Sinai Conferences eventually became very well known—even famous—in medical circles. They were thorough, to the point, and sometimes as heated as they were informative.

The Clinical Pathological Conferences had been reorganized in 1919 primarily for the benefit of the Mount Sinai staff. There was another reason, however, although it was not so explicitly stated. This was to establish the Conferences on such a basis that they would become a means by which the Hospital could reach the practicing physicians of the community. Since scores of physicians attended the Conferences weekly, year after year, this second aim was achieved early in their existence. In effect, Mount Sinai became, through the Conferences, a clinical postgraduate center; the Hospital's experience and methods were spread far beyond its walls.

Within the Hospital, however, the Pathology Laboratory conducted far more extensive educational activities. Essentially, these consisted of lectures and demonstrations in surgical pathology and morbid anatomy for the House Staff and other Hospital physicians. In practice, they also included lectures and demonstrations in general pathology and in special branches of pathology, like genito-urinary pathology, neuropathology, dermatological pathology and the pathology of the eye and ear. By 1931, when every clinical department of the Hospital was represented in the laboratories, in one way or another, the range of such special instruction was enormous.

Chemistry and bacteriology conducted similar programs of instruction for the Hospital staff. The burden of teaching, after 1926, fell on the full-time department chiefs. Their students included an increasing number of Hospital physicians, research fellows, and physicians from outside the Hospital. As in earlier years, when the laboratories were less complex, the institution's policy was to encourage young physicians of promise to spend a year or two in the laboratories before beginning their clinical careers.

This was done primarily by means of a fellowship which had begun, on a rather small scale, with the establishment in 1907 of the George Blumenthal, Jr., Fellowship in Pathology. By 1923, a number of other fellowships were available in pathology, neuropathology, and bacteri-

ology. In 1927, there were two more fellowships, two named in honor of the great bacteriologist, Theodor Escherich, and a short-term one, in pediatrics, named for Louis S. Frankenheimer. In 1931, the original list of fellowships had expanded greatly by the inclusion of such short-term ones as the Lionel and Florentine Scholle Sutro Fellowship, the Arthur Lorsch Fellowship and the Hernsheim Fellowship in Chemistry.

Generally, the holders of these fellowships had graduated into them after completing their internship period in the Hospital. The training of interns and residents has been the most important aspect of the Hospital's educational program from the time internships were first instituted, in 1872. House staff positions were considered prizes among young medical graduates. Examinations for them were rigorous in the extreme; competition was keen and the Hospital openly preferred those applicants whose scholarship was exceptional.

Before the First World War, internships lasted two and a half years, and combined the characteristics of present-day internships and residencies. Internships early in this century were simply periods of training in medicine and surgery; there was also one internship in pathology. Within these broad fields, the interns found and followed their special inclinations. Later, as medicine became more complex and the specialties developed, periods of training in special branches of surgery and medicine were added.

The first listing of ward residents among the House Staff occurs in the Annual Report for 1924; the Neurological Service, the Gynecological Service, the Pediatric Service, the Eye, Ear, Nose and Throat Service, and Radiography each had two residents assigned to them. One resident worked in Radiotherapy. (The House Staff had more than doubled since 1900; from twenty-two to forty-six, not including the four resident nurse-anesthetists also listed in 1924.) In the following year, five residents worked in the Private Pavilion.

The development and expansion of the residency system was an inevitable consequence of the growth of medicine. It was matched by other educational activities at the Hospital—among them the popular series of lectures which were open to the medical profession.

More important, however, was the unusual step the Hospital took in 1923: the establishment of a formal postgraduate teaching program in connection with the College of Physicians and Surgeons at Columbia University. This step was one which had long been planned. The

Mount Sinai constitution declared that it was the Hospital's intention "to afford to students of medicine the opportunity to acquire a practical knowledge of the art and science of medicine."

The Hospital had maintained very cordial relations with medical schools in New York over many years; students from Bellevue and the College of Physicians and Surgeons had visited its wards and been instructed by members of its staff. There was little formal organization of this teaching, however; in practice, it was usually done by Mount Sinai staff members who were also faculty members in the different schools.

The fact that the Hospital had not done more to formalize its teaching program caused concern to both the Medical Staff and the Trustees. In 1922, a major step toward clearing up the situation was taken by Joseph F. Cullman, who had been a member of the Board since 1897. In a letter to the Board, Cullman wrote "I am informed . . . that the development of medical teaching at the Hospital . . . is impeded by lack of a suitable executive organization, and that the general funds of the Hospital are not available for the establishment of such an organization. I desire, therefore, to put at the disposal of the Hospital the nucleus of a fund to be known as the Mount Sinai Hospital Fund for Medical Education, and herewith subscribe the sum of $25,000 to such a fund in the name of Joseph and Zillah Cullman . . ."

Cullman was to serve the Hospital until his death in 1938. Born in New York, he was an eminently successful business man whose philanthropic interests were primarily in education. His gift (augmented later that year by a $25,000 legacy from H. P. Goldschmidt, and, at Mr. Cullman's death, by a legacy of $50,000, as well as other gifts in later years) made it possible for the Hospital to accept Columbia University's long-standing invitation to begin teaching on a formal basis. A series of six-week courses was organized with the co-operation of the Columbia Administrative Board on Graduate Studies in Medicine.

The first series of eighteen courses included lectures and demonstrations on the diagnosis and therapy of diseases of the gastro-intestinal tract, gastro-intestinal radiography, practical dietetics, practical hematology, blood transfusions, diseases of the circulatory system, diseases of the chest, diseases of metabolism and disorders of the involuntary nervous system. Two general medical clinics were also conducted, one by Nathan Brill, the other by Emanuel Libman.

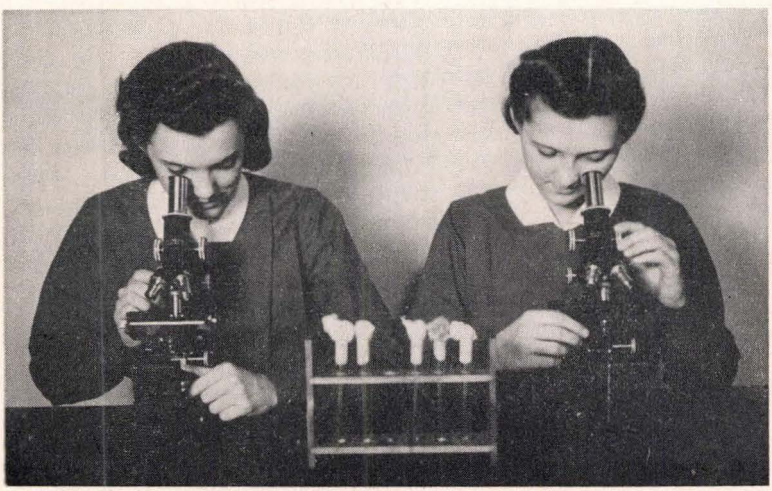


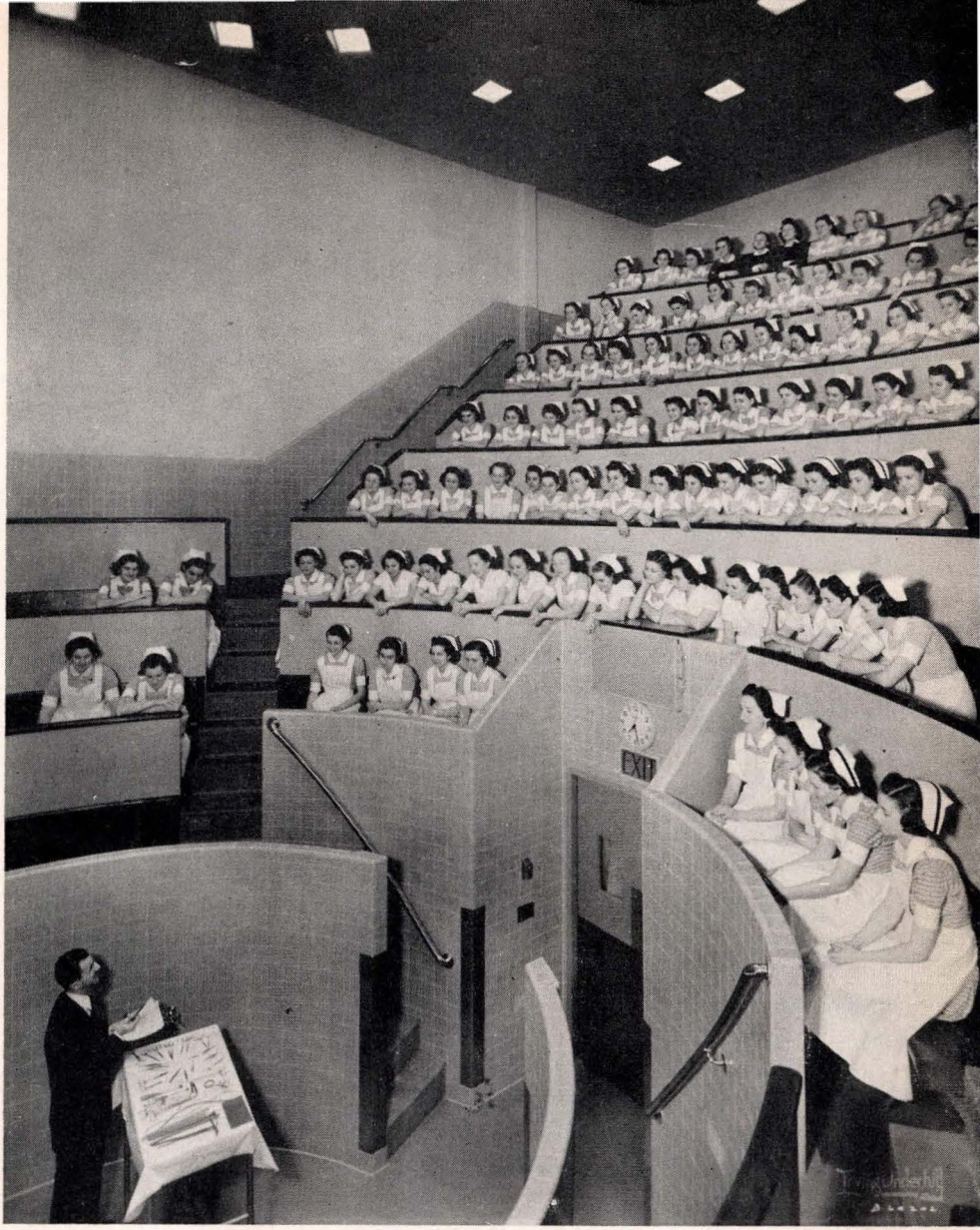
Clinical Pathological Conference



Bedside Training of the Nursing Student Today

Basic Science Training of the Modern Student Nurse





Surgical Instruction of the Nursing Student Today



The Nursing School Today

The courses, offered with the frank purpose of keeping both general practitioners and specialists up-to-date in medical developments, were an instant success. One hundred and six students enrolled for the first series, nearly all from New York and its immediate vicinity, one from Connecticut, and one from Pennsylvania. For the second series, when the courses available were extended to include pediatrics, applications were received from Nebraska, Missouri, and other distant points throughout the country.

In the years since the courses were founded, students have come from thirty-eight states and the District of Columbia, from Canada and from fourteen Latin-American countries, and from twenty-three European and Asiatic nations. The courses have been consistently well attended. Their content has varied with developments in medicine both in general (an increasing emphasis on the long-term diseases of an aging population) and in a specific, practical way (courses explaining new techniques and special procedures).

Administratively, the courses are supervised by the Committee on Medical Instruction of the Medical Board, one of whose officers serves as its active secretary. For many years, Dr. Bernard Sutro Oppenheimer was active in planning and directing these activities.

In 1926, the first "extra-curricular" courses, arranged informally between students who wanted them and instructors who could give them, but administered in the same way as the regular courses, were begun.

The Hospital's autonomy as an institution was a unique feature of its affiliation with the University. Autonomy was necessary, however, if the goal of the postgraduate education program—advanced training for qualified medical men already in practice—was to be reached. In the 1924 Annual Report there appeared a cogent statement of the Hospital's point of view: "It is a great error to assume, as many people do, that medical education in this country is confined to hospitals which are either owned or controlled by University medical schools, and which are used for the teaching of undergraduate students. Twenty years ago the most pressing problem in medical education in the United States was the problem of undergraduate teaching, which at that time lacked standardization and control and which upon the whole was conducted on a much lower plane than undergraduate teaching in the most advanced European countries. Since 1900, marked progress has been made in undergraduate teaching, and today

the actual treatment of the sick in this country is doubtless influenced far more by the mental habits formed by physicians after their graduation than by the knowledge which they acquire as undergraduate students. The key to nearly everything that makes for efficient medical practice is now in the hands of non-university hospitals because they are overwhelmingly in the majority."

16

New Trends in Nursing and Patient Care

THE SLOW ACCRETION OF MEDICAL KNOWLEDGE BROUGHT ABOUT, FROM year to year, changes in standards and methods of medical practice that appear dramatic only in retrospect; their effects as they occurred passed with little notice. Changes in hospital organization and practice took place in the same fashion. Some—like the consolidation of the Staffs of the Out-Patient Department and the Hospital itself, which had begun during the War and was virtually completed by 1922—originated within the Hospital itself. Others resulted from technological and social developments outside it.

The Hospital's nursing school (the name was officially changed from the original Mount Sinai Hospital Training School for Nurses to the Mount Sinai Hospital School of Nursing in 1923) was among the first of the Hospital's divisions to feel the pressures from the changing society of the twenties. It was also one of the most sensitive in responding to the pressures.

At the end of the First World War the Nursing School found itself, in spite of its long and successful record, in serious difficulties—difficulties which it shared with other institutions of the kind throughout the country. Some hospitals had to close their schools of nursing; others sharply curtailed nursing service for their patients. The Mount Sinai Annual Report for the year 1920 described the problem thus: "The nursing problem which confronts all hospitals is a most serious one. You all know how difficult it has been for some

years to secure trained nurses when needed in your own families, and the difficulties of the Hospital in this respect are a hundredfold greater. Many factors helped create the present situation, which involves not only a scarcity of graduate nurses, but even to a greater extent, that of qualified pupil nurses. The outstanding reasons are probably, first, the higher remuneration offered to women in other vocations; second, the large increase in the number of hospitals and training schools all over the country, and, third, the fact that owing to the difficulty of securing nurses when required in emergencies, many well-to-do families, particularly those with children or members well advanced in years, are taking trained nurses into their households in order to be prepared in case of need.

"The condition is serious and the outlook obscure. Our training school has not of late been able to secure the required number of probationers and in consequence the Hospital has been under the necessity of employing a considerably larger number of graduate nurses. Were this all it would not be so grave, because the employment of graduates is scarcely more expensive than the employment and adequate education of pupil nurses, but the danger lies in the fact that the supply of pupil and graduate nurses together tends to fall short of the needed number. Unless these conditions improve, the entire system of nursing will have to be changed. . . . Until we see quite clearly how this situation develops, our plans for the construction of additional quarters for our pupil nurses are subject to change. . . ."

The Training School Report for the same year commented ". . . this year has been characterized by great strain and anxiety on the part of those intimately concerned in the administration of the Hospital and Training School. The unparalleled shortage in nursing ranks and the limited number of women applying for admission, with the rapidly increasing demand on all sides for efficient and well-trained nurses, has created a new and entirely unprecedented situation."

Conditions gradually improved as hospitals and the newly formed Councils on Nursing Education (organized by philanthropic interests and medical educators) brought increased emphasis on nursing as a profession, rather than as a service occupation. One reason young women hesitated to enter nursing was because of the long hours of drudgery required of them, thanks to the persistence of the nine-

teenth-century idea of the nurse as a person suited to care only for the "domestic needs" of the sick. Another was the fact that hospitals depended almost entirely on student nurses to carry the load of bedside nursing, and at the same time required them to complete a curriculum that inevitably became more complex as the technical demands on nurses increased. The dominating spirit of the nurse was supposed to be one of "devoted self-sacrifice." In practice, this meant that there were few opportunities for nurses to develop either professional pride or self-respect.

The introduction, after the War, of the eight-hour day for student nurses, however, and increased attention to the nurses' economic needs eased some of these problems. More attention was paid to the number of hours a student nurse spent in the classroom, and standards for what she learned there were set higher and higher. Onset of the postwar depression which made jobs in other fields both scarcer and more uncertain also enhanced the attractiveness of the nursing field.

By 1923 the Training School was able to report: "The nursing situation itself has greatly improved. During the past year over eight hundred letters of inquiry and application have been received, an increase of three hundred over that of either of the two preceding years. . . . Those of us who know how greatly improved training-school conditions are in this present day, through the shortened hours of duty and better educational opportunities, feel that although economic conditions have undoubtedly had much to do with the increased number of applicants, a considerable part [of the increase] can be attributed to the publicity given to improved conditions. Parents are more willing to allow their daughters to enter upon a nursing career and nurses themselves are beginning to urge their own career on others."

In a later report it was noted that students in the Mount Sinai training school (aside from an eight-hour service day and classroom and laboratory work) were given the full academic preparation without which the New York State Board of Nursing Education would not permit a graduate to take the registration examinations. (The Hospital then had an average daily staff nurse population of 300, in addition to 150 private duty nurses in the Private Pavilion.)

The effect of the changed conditions under which nurses worked and the new attitude toward them could be seen in the results of a

survey of the professional intentions of students entering the school. Of these, 32 percent wanted to prepare for private-duty nursing, and 68 percent planned definitely on doing either public-health work or hospital-executive work. The same ambitions prevailed among the graduating class. In 1927, the length of the training period was increased to three years; most states required a three-year course for licensing, and higher scholastic standards also made it necessary.

The interest of student nurses in the public-health and executive aspects of the work bespoke the new atmosphere surrounding nursing, and the newly dignified acceptance of nurses as an integral part of the Hospital Staff. So too, in a different way, did the new building for the Nursing School. Plans for the construction of such a building had been included in the expansion program outlined in 1916-17. Wartime difficulties seriously delayed the project. So crowded were the nurses' quarters, however, that a compromise had to be made; the former Pathology Laboratory was entirely remodeled and, in 1919, put to use as an educational building for the nurses. According to the standards of the time, it was a model school, and "the first complete building devoted solely to nursing educational purposes organized in connection with any nursing school in this country." Additional temporary residential quarters for the nurses were set up in the old Private Pavilion.

Plans for the new Nursing School were further delayed by difficulties over the title to the land on 99th Street the Hospital had bought to accommodate it in 1923. Construction was finally begun in 1925. The building was designed by the architectural firm of Kohn and Butler, in consultation with Dr. Goldwater. It was completed and opened for use in 1927.

It was the tallest of the Hospital buildings (fourteen stories), of variegated red brick with limestone decoration to harmonize with the rest of the hospital group, with which it communicated through an underground tunnel. The building itself was H-shaped. Along the tunnel were utility rooms (including a special shampoo room); the building also had its own kitchen. The first and second floors contained reception rooms and offices, as well as a 400-seat auditorium and a living room and library.

The second floor, planned for teaching, contained three times as much space as had been available for this purpose before. Living quarters for the student nurses occupied eight floors of the building.

On the twelfth and thirteenth floors were quarters for the faculty and supervisory nursing staff. A gymnasium and infirmary occupied most of the fourteenth floor; on the roof was space planned for outdoor recreation and sleeping.

During the late twenties, enrollment at the Nursing School grew steadily; each class that was admitted—there were two a year—numbered somewhat over 100 students. From 60 to 65 percent were eventually graduated. By 1931, when the School was completing its fiftieth year, there were nine full-time instructors on the faculty in addition to the special lecturers drawn, usually, from the Medical Staff of the Hospital.

But, the Report of the Nursing School in its anniversary year was not self-congratulatory. Instead, it was studded with references to the economic problems brought on by the great depression. The graduate nurses who normally found employment through the Registry maintained by the School found work increasingly difficult to obtain; the Registry received 1,000 fewer calls than it had the year before. Day-to-day operations were normal enough, but, the Report reads: ". . . the past year has been a quiet and uneventful one. This was undoubtedly due in part to the fact that progressive or experimental endeavor was greatly restricted by the existing financial depression. The bedside nursing service of the Hospital during the past year has been made more difficult by the fact that most of the adult patients admitted were not only very ill, but generally also very much discouraged. . . ."

When the new Nursing School building was opened, the plan was to convert the old Private Pavilion it formerly used into semi-private wards. More beds for this kind of service were urgently needed; there were only twenty-four available, and the waiting list for them was often several times that number. But, like most hospitals, Mount Sinai had not anticipated the demand for them, although ward patients and private patients had been generously provided for when the 100th Street buildings were erected, and in the construction programs that followed.

What had not been foreseen in 1900 were the economic changes that resulted in the phenomenal growth of the middle class. By the mid-twenties, the United States was no longer divided so sharply into rich and poor as it had been when the Hospital moved from Lexington Avenue. The development of industry, increase in employment, higher wage scales, higher salaries and a generally broader

distribution of wealth had all contributed to the rise of a group of people who were ineligible for free ward care. Yet they could not afford the relatively stiff rates of the Private Pavilion. The false prosperity engendered by the "Big Bull Market" highlighted the existence of this group during the twenties, and foresighted students of the economy were convinced that the fundamental change to which the new middle class owed its existence was a permanent one.

In 1928, therefore, when the Hospital took stock of its twenty-five years on Fifth Avenue, some basic readjustments were decided upon. These were embodied in the last major program worked out for the Hospital by Dr. Goldwater with the assistance of Dr. Turner. The most important step was construction of a Semi-private Pavilion to take care of patients of moderate means. The plans called for 120 beds, besides operating rooms and service quarters to make the new building, in effect, a self-contained hospital and not simply a dependency of the older Hospital units.

(At the same time, a thorough renovation of the rest of the Hospital plant was planned: medical and surgical wards were to be rehabilitated; the Dispensary floor space was to be doubled; the Dispensary itself remodeled and to some extent re-equipped; and the laundry much enlarged or completely rebuilt. Money for the new construction and remodeling came, first, from the Trustees, who raised $1,066,500 among themselves, and second, from a public drive for $950,000. This drive was made through a special arrangement with the Federation for the Support of Jewish Philanthropies; the Federation's officials agreed to allow Mount Sinai to approach the community directly, provided that its own Trustees would contribute no less than $700,000.)

Mount Sinai's Semi-private Pavilion was the first of its kind in New York. (The country's first, the Baker Memorial unit at Massachusetts General Hospital in Boston, had been in operation for about a year when Mount Sinai began construction.) Construction was actively supervised by Dr. Joseph Turner, who succeeded Dr. Goldwater as Director of the Hospital in 1928.

When the new unit was opened, late in 1931, George Blumenthal, speaking as the Hospital's President, explained its attitude and intentions: "We hope," he said, "to remove the basis of that frequent complaint that a great majority of hospital patients must contract bills out of all proportion to their incomes or to be in a sense pauper-

ized through free treatment or treatment at a nominal cost in a ward." Blumenthal pointed out that the average wage-earner, even during the country's great prosperity, earned only $1,920 yearly. "Obviously, then, the average citizen cannot afford to pay the full cost of hospital treatment under the usual plan of care," Blumenthal said. "We shall try to demonstrate that it is not necessary for him to attempt to pay this amount for a bed, for expert nursing and for proper medical treatment."

The cost of a private room, at that time, ranged from $56 to $105 a week; day and night nursing cost another $119 weekly. In the Semi-private Pavilion, it was planned to cut these rates by more than half. Beds in the semi-private rooms would be available at $35 a week; group nursing, one of the most striking innovations in the Mount Sinai plan, would cost but $45 weekly.

The group nursing system made the services of graduate nurses, working in three shifts, available to all patients at all hours. The system was made possible by the construction, between each pair of four-bed ward units (although originally designed as three-bed units) of a glass-enclosed nurses' station and a small utility room. Not only were the nurses thus more accessible to the patients, but their own time and energy were conserved because they did not have to move constantly back and forth between patients' rooms and central utility rooms and nurses' stations. (Private nursing and regular floor nursing were also available for patients who needed or preferred them.)

The patients' rooms occupied the second to seventh floors. (The first floor was given over to offices, reception rooms and living quarters for the Resident Staff assigned to the Semi-private Pavilion.)

The special construction of the wards was the second radical departure from standard hospital practice. There were six four-bed wards on each floor. Each floor also contained separation rooms. All the wards were planned to face Central Park. Two beds in each were close to the windows; it was planned to use these for patients who had to be in bed around the clock. The Hospital's statistics showed that about one out of three patients spent most of the day out of bed. For their use during most of the day, each floor had day rooms and porches, and there were solaria on the roof. The beds could be separated by curtains; the ceilings and all noisy equipment

were soundproofed as far as possible. Each patient had a minimum of 90 square feet of floor space.

The utility rooms, elevators, treatment rooms and doctors' lounges were housed on the opposite side of the corridor.

The eighth and ninth floors of the building were taken up by twelve operating rooms. Each had an observation gallery fronted with shatter-proof glass. The top floor also contained the largest sterilizing apparatus made up to that time.

A third major innovation was the voluntary limitation of surgical and medical fees charged to semi-private patients. This, plus the fact that Hospital charges for special tests and examinations, X-ray studies and use of the operating rooms were scaled as low as possible, made the semi-private service a success from the beginning, in spite of the fact that it was inaugurated during one of the worst periods of the depression.

It was also in 1931, after several years of discussion and planning, that the Hospital inaugurated its unique Consultation Service. This plan, which precipitated a storm of controversy among doctors and in many other hospitals, grew out of Mount Sinai's explicit policy of rendering as much service as possible to the community. Dr. Goldwater, in a paper on the educational duties and opportunities of the non-university, closed-staff hospital, had put this policy forcefully. He urged creation of as many staff positions in ward and laboratory as each service could healthfully absorb. He also urged: "Invitations should be extended to the practitioners of the neighborhood to attend clinical and pathological conferences . . . diagnostic aid should be extended to unattached practitioners . . ." and even for the extension of occasional "courtesy staff" privileges for the treatment of private patients.

Between 1919 and 1931, the most effective means of reaching the doctors who were not staff members had been through the popular Clinical Pathological Conferences. Some staff members and officials, however, felt that the Hospital's influence would be more effective if its professional talents and physical facilities could be co-ordinated into a diagnostic service which could be used by outside physicians.

In 1928, it became evident that the Hospital needed such a service as much as did its potential users. From the purely administrative viewpoint, it was needed to improve the efficiency of the Out-Patient Department. The Out-Patient Department had to reject hun-

dreds of patients who relied on their neighborhood physicians for ordinary medical care but who, when serious medical problems arose, could not afford expensive diagnostic tests on a private basis. In many cases, also, their physicians did not have access to the facilities needed. These patients were, in Dr. Turner's words, "the ambulant equivalent of the in-bed semi-private hospital patient." Diagnostic facilities for them on the same low-cost basis as prevailed in the Semi-private Pavilion would solve the problem for both patients and Hospital.

From a clinical viewpoint, Dr. George Baehr arrived at the same conclusion. If a diagnostic service were set up, physicians throughout the community could use it for help with their problem cases, he reasoned. Because it would be limited to patients of modest means (income limits were $2,400 for single persons and $4,000 for most families) and would serve only those referred by their own doctors, the patients would get the kind of service from which they had been barred by economic considerations. The referring physician would benefit also, through his access to the greater resources and experience of the Hospital Staff. The Hospital also would benefit; beds it was forced to use for diagnostic purposes could be freed for use by acutely ill patients.

Much of the planning for the new service was in Dr. Baehr's hands; he was then Physician to the Hospital and Associate in Pathology. Baehr, already well-known as a medical scholar and for his scientific work with such problems as the renal complications of heart disease, was to become even better known for his interest in the sociological problems of medicine.

Before Mount Sinai decided how its Consultation Service would be set up, Baehr made a study of similar services at other hospitals. In general, he found that these services were, in fact, merely channels through which doctors could refer patients to the hospitals' regular Out-Patient Departments. No distinction was made between patients who came for regular O.P.D. treatment and those with the complicated problems the diagnostic services were set up to solve. Thus the original purpose was defeated. Instead of expert, concentrated attention, the patients received only the routine service. Very often, also, the patients were cared for entirely by inexperienced junior staff members.

Doctors did not use the services as actively as they might have because, in addition to the admission fee, extra fees were charged for

all the investigations. The ultimate cost was unpredictable; it often turned out to be beyond a patient's means.

Baehr felt that this financial barrier could be gotten over only by a fixed, all-inclusive fee, which would never be exceeded. (It was set at $35 in the beginning.) In a service requiring multiple consultations and laboratory procedures which might have to be repeated many times before a diagnosis could be made, the accepted specialists' custom of adjusting their fees for single services to their estimates of what the patient's purse could stand was totally impractical. The policy of a fixed fee would also make it easier for the referring physician; he could tell his patient what maximum cost to expect. The Hospital Staff, also, could work without limiting their investigations by the limits of the patient's pocketbook, and thus give consultation service patients the benefits of the co-ordination of laboratory and clinical medicine available to patients in the Hospital wards.

It was decided to call the new service a "consultation service" rather than a "diagnostic clinic" for a number of reasons. The term "diagnostic clinic," to many of the medical profession of that day, meant a clinic that accepted self-referred patients in direct competition with doctors in private practice. Some clinics even offered treatment to patients referred to them by private doctors. A service rigidly limited to consultation only would not be thought of as an economic threat by the family physicians who used it. To make this clear, the medical societies in the New York area were kept informed of plans for the new service as they developed.

When the plans were complete, a floor in the new Semi-private Pavilion was turned over to the Consultation Service; the wards were remade into history taking spaces and examining cubicles. (George Blumenthal met the cost of the alterations and equipment and offered, in addition, to pay whatever initial deficits might occur.)

In spite of the pains taken to assure doctors that the Hospital was not planning to practice medicine in competition with them, the actual start of the Service met with considerable opposition.

Opposition did not last long, however. After the Hospital's vigorous defense of its plan, increasing numbers of family physicians referred patients to the Service. During the first seven years the Consultation Service functioned, 3,527 doctors referred 12,613 patients to it.

Patients go back to their own doctors with advice for specific therapy based on the diagnostic findings of the Staff. The patient's private doctor then either carries out treatment himself, or refers the patient to whatever hospital or specialist he thinks best able to handle the case.

During the first three years of the Service, Dr. Baehr was its Medical Director; Drs. Ernst Boas and Herman Lande were Associate Directors.

Another contribution made by Dr. Baehr as a member of the Hospital Staff was the impetus given to the establishment of a standard nomenclature for diseases. This project, which eventually involved medical experts and hospital officials throughout the country, began in the record room at Mount Sinai in the mid-twenties. It led to the calling of a national conference on nomenclature of disease and subsequent development of a standard nomenclature which is now in use in all the major hospitals of the United States and in many hospitals abroad.

In 1926, Baehr became interested in improving the recording of diagnoses to make the files more useful for clinical research. A search of the Record Room revealed that diagnoses were very frequently misplaced because of the inadequacy of the disease classification used.

Earlier, an attempt to develop a standard nomenclature had been made at Bellevue Hospital. The Bellevue nomenclature became standard in many hospitals. Within its limits, many diseases could be classified under different headings. Hence, many could not be found under their correct classifications.

Many hospitals soon introduced their own modifications. Within a short time, the Bellevue nomenclature was no longer standard. Presbyterian Hospital then developed a nomenclature, modified after the Bellevue system. The Massachusetts General Hospital had also developed a widely used nomenclature. Like the others, however, it did not eliminate needless duplications.

Mount Sinai Hospital, under Dr. Turner, had adopted the Massachusetts General classification. Its use was handicapped, however, because the Record Room clerks had no knowledge of medical terminology. Furthermore, physicians used terms which were medically meaningless; they gave only a fragment of the complete diagnosis. This, plus the fact that many hospital medical boards constantly

modified the nomenclature they had adopted confused the situation further. This was the condition at Mount Sinai in 1926 and 1927.

Toward the end of 1927, Baehr attended a meeting of the Committee on Public Health Relations of the New York Academy of Medicine. Dr. Lesley Williams, Director of the Academy, asked whether the Committee might be interested in developing a standard nomenclature for disease. Baehr then suggested that "the confusion which existed up to that time in all hospital record rooms could never be solved except by national co-operation of the national societies representing medicine, surgery and all the basic specialties, in collaboration with the various governmental agencies interested in the problem of diseases and deaths and their classification." He suggested further that a national conference of all interested agencies should be held at the New York Academy of Medicine.

The first conference was held on March 22, 1928. Dr. Haven Emerson, distinguished leader and teacher in public health, presided. At this meeting, a National Conference on the Nomenclature of Disease was formed. Its final object was stated to be "to unite the important national societies representing medicine, surgery and their specialties, the federal medical services and interested national health organizations and life insurance companies in an effort to develop a standard national nomenclature of disease."

The National Conference included representatives of the American Hospital Association, the American Medical Association, the American Public Health Association, the American College of Surgeons, the American Statistical Association, the Association of American Physicians, the United States Bureau of the Census, the United States Public Health Service, and three physicians at large.

The Conference planned to adopt a dual method of classification: etiological and anatomical. The nomenclature would be designed primarily for clinicians; their diagnoses would be the main sources of information. The clinical point of view, therefore, always dictated choice of terms or of arrangement, provided it was not at variance with scientific accuracy or completeness.

This basic plan was ready for adoption at the Second National Conference (November 22, 1930); the Standard Nomenclature was prepared according to its provisions. It was designed to include every disease which can be recognized clinically, to avoid repetition and overlapping of definitions, and to classify diseases in a logical way.

It was also planned to include an alphabetic index, which would make it easy for clinicians, public-health officials and record-room clerks to use the classifications.

The first complete draft of the Standard Nomenclature was unanimously approved at the Third National Conference (December 14, 1931). A trial edition was issued in April, 1932, and widely distributed among representative internists, surgeons, specialists and practitioners of medicine in various parts of the country. Fourteen large and small hospitals installed the new Nomenclature in its trial form in their record rooms for an intensive six-month trial. Twenty-two national, clinical and scientific societies approved the plan at their annual meetings in 1932. The first official edition was published in January, 1933. The American Medical Association took over responsibility for subsequent editions.

The work on standard nomenclature that began at Mount Sinai had an international sequel. In 1938, the State Department appointed Baehr as a delegate to the International Conference to Revise the International List of Causes of Death, called in Paris by the French Government. After this conference, he continued as a member of the United States Committee on the International List. During the following ten years, this committee compiled a list of diseases and operations which was adopted by an international conference in Paris in 1948. Baehr was one of the delegates from the United States.

Shortly thereafter, the World Health Organization adopted the International List of Causes of Death for use all over the world. The American Public Health Association in 1947 presented an award for distinguished service to the United States Committee on Joint Causes of Death.

17

The End of an Era

ON NOVEMBER 13, 1929, THE BOOMING TWENTIES CAME TO AN END with the final crash of the Big Bull Market. The paralysis of the great depression began.

Only slowly did the country begin to understand how profound the shock of the economic debacle had been. Banks closed. Homes and farms were lost. Factories shut down. Families were broken up. Breadlines and soup kitchens did what they could to stave off starvation for the desolate. Apple-sellers appeared on the streets and became the living symbols of despair.

All this took place in spite of the unprecedented increase in the real wealth of the nation. The increase in the national income (in terms of physical goods) had been 93 percent between 1920 and 1929, against an increase of some 10 percent in the previous decade. Output per man-hour in manufacturing industries had doubled in the twenty years before the crash. Real wages had more than doubled since 1914.

Yet much of the evidence of this concrete achievement was wiped out in the scant three weeks between October 24, 1929, when the stock market began to slip, and November 13th. Between these two dates had come the unforgettable Black Tuesday, October 29th, when a record-breaking 16,410,000 shares were traded and prices plunged to levels that had been inconceivable a few weeks before. Men destroyed themselves rather than face ruin. The need for drastic action was imperative; yet nowhere did there seem to be confidence, imagination or power enough to do what needed to be done. So

sweeping was the catastrophe that men submitted to it like sacrificial sheep, incapable of any defense.

But worse was to come; and the worst, and most symbolic, of the ruinous events that ushered in the thirties was the fate of the banks. Bank after bank, unable to meet its depositors' demands and other obligations, closed its doors. Those struggling to stay open limited their payments. State governors declared bank holidays in their jurisdictions. Depositors stood in line for hours, waiting to withdraw their money; many clutched satchels, hoping to carry them away full of gold. There was not a person, a home, a farm, a business, free from the mark of fear.

By March 4, 1933, the day Franklin D. Roosevelt was inaugurated President of the United States, every bank in the nation was closed. On March 5th, Roosevelt declared an official bank holiday. Within five days, the first of the New Deal legislation—a bill regulating banking—had been passed. The country was caught up in the maelstrom of the thirties.

Early in 1929, Mount Sinai had admitted its 300,000th patient, one of the 12,400 admitted during the year. The Hospital was going confidently ahead with the $2,000,000 expansion program planned the year before; salaries and wages, according to the Annual Report, were being increased. The cost of maintenance for Hospital and Out-Patient Department was $1,727,977.00. The deficit for the year was $29,090.07—not an impossible sum, although it was one of the largest listed until then.

Yet the first note acknowledging the impact of the country's crisis on the Hospital occurs in connection with the contributions to the Hospital. Among the contributions listed in the Annual Report was one of $497,429.72, which came from the Federation for the Support of Jewish Philanthropies. The President wrote, acknowledging this amount, "We are deeply appreciative of the support granted us by the Federation, which because of the untoward financial situation during the latter part of the year was confronted with a particularly difficult task . . ."

By 1930, the financial crisis dominates the Annual Report: "The economic and financial depression . . . has had its repercussion on the affairs of the Hospital . . . the percentage of those not able to pay anything or only a very small fraction of the cost of their treatment has increased very considerably. . . ." The Out-Patient Depart-

ment physicians and staff worked overtime to accommodate the unprecedented number of patients—222,489. (In 1929, the number treated had been 207,949.) The deficit had risen to $56,205.31; prospects for the next year were "alarming." Charitable giving had come to a standstill.

In 1931, the Federation had a deficit of $300,000. United Hospital Fund collections were far from normal. The Hospital's deficit continued to rise, as did consultations in the Out-Patient Department, which reached a record of 236,234. Hospital funds were dangerously close to exhaustion. Salaries and wages for its employees were cut.

Not until 1934 was there any indication that the panic was dissipating; in that year, cuts in salaries and wages amounting to $25,000 were restored, and this was followed in 1935 by a further restoration of $30,000. Meanwhile, Federal minimum-wage legislation, legislation regulating hours of work, the increased trend toward the five-day week and similar developments were increasingly changing the way in which the institution was operated.

Probably the two most conspicuous changes were the institution of the eight-hour day for non-medical employees, and the gradual adoption of eight-hour duty for private-duty graduate nurses. This was first introduced as an experiment; patients in the Private and Semi-private Pavilions were given a choice of eight-hour or twelve-hour nursing. A steadily increasing percentage chose eight-hour duty; many of the nurses preferred it, and it became the accepted practice throughout the Hospital.

In 1935, also, the Hospital joined Associated Hospital Service; in the first year of the plan's operation at Mount Sinai, 111 A.H.S. patients were treated in the Private Pavilion and 163 in the Semi-private. The Hospital recorded a loss of $3,773 in caring for these patients; but, said the Annual Report, "This is a contribution the Hospital is glad to make for the benefit of those who . . . obtain treatment under the most favorable conditions at very reasonable rates." (As A.H.S. and other hospitalization plans grew in popularity during and after the depression years an increasingly higher percentage of the Hospital's income was to come from these sources.)

By 1938, when George Blumenthal resigned as President, the total deficits were more than $800,000. New taxes and the new kind of social organization resulting from increased government activity on Federal, State and municipal levels had altered the character of

philanthropy. It was no longer possible to conduct an institution like Mount Sinai on the basis of private philanthropy alone, nor was it possible for such an institution to hold aloof from others like itself. The Trustees hoped that the Greater New York Fund, then being created, would "succeed to such an extent that the Hospital will obtain . . . that monetary assistance which is so urgently needed."

Leo Arnstein, who was elected President to succeed Blumenthal, was prepared by both temperament and training to meet the new conditions. He was modest and quiet, and appeared reserved, almost austere, in spite of the warmth and understanding that were his outstanding characteristics. In 1896, after being graduated from Yale, he had become a volunteer worker at the Henry Street Settlement; he became known for his opposition to child labor and his interest in improving labor laws and especially in securing employers' liability legislation. In public life, he was secretary to Borough President George McAneny, an assistant to the President of the Board of Aldermen, a member of the Board of Education, and subsequently its General Manager. During the First World War, as a Lieutenant Colonel, he was attached to the General Staff in Washington. In 1934. Mayor La Guardia appointed him a member of New York's Emergency Relief Board and later Deputy Welfare Commissioner and finally Welfare Commissioner; his service was during a time when the City's relief rolls numbered 350,000. He was also active in the Federation for many years.

Arnstein was connected with Mount Sinai as a Trustee and finally as its President for forty-two years. His greatest interests were in organization and service; it was partly at his instigation that Out-Patient Department admissions were cut down from the swollen totals they had reached during the depression in order to maintain medical service on an effective level. When he died, in 1944, Mayor La Guardia praised him as "one of our city's finest sons." He was succeeded as Mount Sinai's President by Waldemar Kops, under whom the plans for expansion after the Second World War were made.

Arnstein's experience as a practical sociologist stood him in good stead when the wave of depression engulfed Mount Sinai. He knew that the impact of the crisis would be felt most in the Social Service Department and the Out-Patient Department. He had watched the neighborhood which the Hospital served change, during the ten years

after the War, until it had become one of the most overcrowded and disease-ridden slums in New York.

Much of this change was because of the influx of Puerto Ricans, who flooded into the United States in 1924, after the immigration laws were tightened. Physically, they were small, thin, ravaged by tuberculosis (the rate in Puerto Rico was roughly six times that on the mainland), venereal diseases, malaria, chronic malnutrition. They also suffered from dysentery, filariasis, hookworm and tapeworm. Dr. Frank O'Connor, consultant in tropical diseases to Mount Sinai, said "The Puerto Ricans . . . are heavily infested with parasites which . . . interfere with their economic progress . . . many [even] have come to this cooler country in order to avoid the recurring attacks of filarial lymphangitis which are common in their own country."

Socially, they were little better prepared for life in the North. As many as 40 percent of the Island's people were illiterate as late as 1930. The men had few trades, few professions; some of the women were skilled needleworkers. The only jobs most could find were ill-paid (though not by Island standards) and menial. They clung to their food habits (rice, beans, an occasional dried fish) through both ignorance and poverty. For the same reasons, they huddled together in slums without sanitary facilities, crowded with three or more families in one room. Many, even though they turned to the Hospital for help when they were sick, simply could not understand the most elementary facts about their illnesses, nor co-operate when treatment was offered.

Besides the Puerto Ricans, there were settlements of Italians, Negroes and Cubans; many of these people shared the social and economic problems of the Puerto Ricans. By 1935, when the Hospital calculated that 250,000 people in the area between Fifth Avenue and the East River looked to it for help, the district's health statistics were appalling. Upper Manhattan had the city's highest rates for infant mortality and tuberculosis, the highest registration of venereal disease cases and almost the highest registration of infectious and contagious diseases.

The reports of the Social Service Department and of the Out-Patient Department from 1930 on record how desperate was the situation. In 1930, the Social Service Department reported: "As an indication of the general employment situation, it may be noted that

in the past year 1,604 patients were referred for employment, of whom 207 were placed, while in 1929, 470 patients were referred . . . and 378 were placed." Patients in the Thrombo-Angiitis Obliterans Clinic, who needed sheltered facilities to be able to work at all, could find almost no jobs. In the medical clinics, the social workers found that "requests for medical treatment are frequently made in the hope that adjustments of employment difficulties will be effected. . . ."

The Out-Patient Department, although treating as many as 1,000 patients a day, had to turn 15,000 away during the year. By 1931, the Out-Patient Department found that thousands of its patients could not even pay nominal fees. The increase in tuberculosis, especially among Puerto-Rican children, was appalling. In the Diabetes Clinic, it was found that the patients could not afford to buy even the cheapest vegetables. (They had less than $1.50 weekly for food; 85 percent were on relief.) Social Service found its routine work almost impossible to perform because there were so many medical relief emergencies to be handled. A school relief program begun by the city somewhat eased the problems of the children's malnutrition clinic, but living standards generally, the social workers reported, were steadily sinking lower and lower.

By 1932, the constant problem of finding suitable convalescent homes for patients who needed aftercare was complicated by the "increase in the number of homeless men and women for whom some provision had to be made after their discharge from the Hospital." Because so many patients could not obtain adequate economic relief, the Hospital often bought coal stoves, paid gas bills and bought food for the more desperate families. Work in the Mental Health Clinic was impeded. Patients, the doctors found, could not be helped by orthodox psychiatric treatment because of the immediate threat to physical existence. The Clinic therefore emphasized environmental factors rather than intensive psychiatric case work. The psychiatrists, like the other physicians in the Hospital, found that medical problems as such were not drastically altered during the depression. The difference was that the anxiety and fear filling people's lives intensified and deepened both their emotional and physical ills.

Requests from the Hospital's pediatricians for extra milk went up 50 percent in 1933. The Orthopedic Clinic reported an increase in the number of patients with foot trouble, and attributed it to their

inability to secure proper shoes and "excessive walking due to lack of carfare."

The social workers were so overwhelmed by the scope of the need for help that they had to try to do much more than medical social service. Out of their "fear that there are many patients who will be unable to resume their work because they have become so despondent and apathetic" came the idea of a Social Service Workroom.

The Workroom, the only one of its kind, was opened in November, 1933. Miss Edith Sachs was in charge. Its purpose was not only occupational therapy, but economic rehabilitation for patients not strong enough to get full-time jobs. Although the work was tailored to the patients' medical needs, it was also planned to bring in a cash return to those who did it. Twenty patients (later nearly fifty) worked five afternoons a week in the Workroom. After a short experiment with a weekly wage, it was found that an "incentive" system was more suited to the purposes of the Workroom. Two skilled teachers of arts and crafts instructed the patients in the work that interested them most.

Workroom products were sold through special outlets. During the first four years, the volume of sales was something close to $22,000; more than half of this went to patients, and the rest for supplies and materials. A deliberate effort was made to see that the articles produced by patients met exacting standards of design and workmanship; it was also decided to concentrate on fashionable and easily salable articles, many copied from expensive imports. The hope was that such items would appeal to casual buyers as well as the Hospital's friends.

Other special efforts were made to help the patients adjust themselves. The Out-Patient Department organized food demonstrations in the medical clinics to show the patients (40 percent of whom were on relief) how to feed a family of five on their relief allowances. The Mental Health Class maintained a unique recreational group which met weekly, and which, for many patients, was their only social outlet. The social workers, in the mid-thirties, noticed that nervousness among the children was increasing; their efforts to send as many convalescent children to the country as possible were supplemented by many requests to the Emergency Relief Bureau for extra diet allowances on medical grounds.

Only in 1936, when both private employment and government

projects were giving work to many people, was it possible to strike a restrained note of hope. In that year, the Social Service report, although not so gloomy as it had been during the worst of the depression years, nonetheless commented: "The effect of the depression and the toll it has taken on the morale and health of the people have not yet been fully dissipated. . . . Some . . . have become so maladjusted or so apathetic that great effort and understanding are necessary to bring them back to the point where they can seek and accept work as it becomes available. . . . Another group is composed of families in which the wage earner has just returned to work but with income not yet sufficient to provide [necessities] . . ." Other groups of patients of concern to the Department were those who had maintained themselves through the worst of the depression, but had come to the end of their resources; still others found themselves in need of help because they had taken on family obligations beyond their immediate responsibility. All these groups still needed the many-sided help the Social Service Department had become expert in handling during the blackest years of the depression.

One of the recurring problems of the Social Service Department, especially during the depression, had been the question of finding convalescent homes willing to accept patients from the Hospital's many services. For many patients, this was a matter of urgent concern because the benefits of Hospital treatment were soon dissipated in the cold, lightless, foodless homes to which they had to return. Special difficulty was found in getting convalescent accommodations for men, for diabetic patients and others with dietary problems, for Negroes and for patients with special problems. The question of cost was also important; a few patients could afford nominal charges, but for many the care had to be free if they were to have it at all.

Although the Hospital had hoped, for many years, to build a convalescent home of its own, there were many practical difficulties in the way of such a plan. Meanwhile, access to convalescent facilities depended, for many patients, on private generosity or on chance. One of the numerous convalescent homes with which Mount Sinai established close relations was the Neustadter Home.

In 1936, relations between the two institutions were formalized. This was largely because of the efforts of William I. Walter, a Mount Sinai Trustee who had founded the Children's Clinic with his wife in memory of their daughters and who in that year retired as Presi-

dent of the Board of the Neustadter Home. (In 1935, the Hospital, as residuary legatee under the will of Bertha Weinman, received a legacy of $1,501,527.82 to be used, eventually, to build and support a convalescent home in memory of Moses Weinman.)

Mount Sinai was given preferential use of the Neustadter facilities. After an administrative reorganization, the majority of the Home's Board of Directors was selected from among the members of the Mount Sinai Board. The physician in charge at the Neustadter Home was a staff member at Mount Sinai (Dr. Herman Zazeela, at the time of affiliation); Dr. George Baehr, Physician to the Hospital, served as the Home's consultant in medicine. Administrative connections between the Home's nursing and dietary services were also made close and efficient and, of course, there was a steady liaison between the Hospital's Social Service Department and the Home.

By the end of the thirties, physical and administrative facilities at the Home had been improved to the point at which 841 patients were accepted. Of these, 322 were men (who had not been accepted previously). The rest were women. The average length of stay for each patient was twenty-two days. If it were necessary—as it was in the case of many patients, especially those with chest ailments—the physician in charge of the case during the acute illness was able to continue seeing the patient at a follow-up clinic during convalescence.

Much occupied as were the Hospital and its staff members as individuals, in doing what little they could to relieve the desperation caused by the domestic depression of the thirties, there was another shadow over them—a shadow menacing the whole civilized world. This was first the threat, and then the fact, of totalitarian domination in Europe.

Only a few of the world's most farseeing statesmen correctly gauged the immediate and potential menace of the Fascist and Nazi regimes after the First World War. To most people, Mussolini in Italy seemed somewhat isolated and, in democratic eyes, pinned down by his own braggadocio. Even sophisticated minds could not, for many years, recognize Italian Fascism as a serious threat to world peace. Hitler, with his first attacks on new-formed German attempts at democracy in 1920, was a mockery in his own land and less than that abroad. But in spite of public indifference, the upsurge of what has been called a "braggart nationalism" in many countries was to prove one of the most destructive political forces of modern times.

In fact, real courage was needed to oppose it. The Spanish War which, at the time it was fought, seemed a clear-cut battle between the forces of totalitarianism and democracy, has since proved to have been but a testing ground for two different kinds of totalitarianism. For a few nightmare years after that war was fought out, however, the weight of the whole world appeared to be in favor of the dictators. After the blank terror of the early thirties, it seemed that any apparent order was welcome.

Nonetheless, thinking men everywhere were appalled by Hitler's bald seizure of power in Germany in 1933. For the third time in Mount Sinai's existence, the world was shaken by the arrogance of a single nation claiming for itself racial, moral, intellectual and military superiority over all the rest of mankind. What was to come, few could predict in detail. But those who did took what action they could against the perils they could see and measure.

Among these were the Officers and Staff of Mount Sinai. For them, the rise of Hitler and the unfolding of his genocidal anti-semitism, presented a poignantly personal problem. Many had intimate connections—either through family or from their days as medical students—with Germany. Yet none could blink the vicious racism that was basic to Hitler's program for a "thousand-year Reich." The main point of this program, it became clear to everyone shortly after 1933, was the total annihilation of the Jewish people and religion from the continent of Europe and if possible from the entire world.

In essence, then, the problem that confronted Mount Sinai when the diabolical policies of the Hitler regime were made clear for all the world to see was the same problem that confronted all decent and humanitarian institutions and men. Hitler had to be stopped; his regime was a contradiction of all the ideals of mankind from beginning to end; its pretense at a "scientific" basis was laughable on its face, but fraught with horror not until then recorded in the history of humanity.

Mount Sinai, although founded as the "Jews' Hospital," had not been a sectarian hospital since the Civil War. Its patients and staff were admitted and chosen without regard to race, creed or color. The Hospital had dedicated itself not to sectarian interests but to the service and ideals of its country. It was a thoroughly American institution. Yet it had maintained its character as a symbol of the highest

attainments of the Jewish communal spirit through all the years since it had been established.

In keeping with this dual character, Mount Sinai had a tremendous obligation not only to the world, but to its own conscience, to help Hitler's victims and especially the Jews. In the absence of strong government action—which was not to come for a number of years—the Hospital and its Staff members could do no more, and certainly no less, than what they did. This was to establish the Hospital as one of the bastions of freedom in the United States to which refugees from the deepening terror in Europe could flee.

The first step was taken in 1933. The Directors appointed a Committee to study and report on the possibility of finding places in the Hospital for refugee German physicians, surgeons and research scientists. After that time, hospitality to refugees from all over Europe increased yearly until the sharp drop in immigration during the War.

Services were extended to three different groups: physicians and research scientists, patients and their families and non-professional workers who needed employment. In addition, a number of nurses were trained in the School of Nursing.

In 1933 the Directors among themselves raised a fund of $20,000 to make it possible for German scientists to continue their research in the Hospital's laboratories. The assurance of an appointment in the United States made it possible for a number of distinguished scientists, who otherwise might not have been able to obtain visas, to come to this country. (The Hospital co-operated with other agencies here and abroad to arrange the mass of detail necessary for each individual migration.)

In 1934, the Laboratory on 101st Street, which had been unused for some time, was renovated to make additional space available for the exiled scientists. The Hospital also supplied funds for materials and apparatus, and a stipend for living expenses. The purpose was not only to allow the newcomers to carry on their work, but also to give them an opportunity to become used to the social and scientific customs of the United States. The time spent at Mount Sinai plus the efforts of their colleagues to help them get resettled were, in several cases, the means by which the exiles obtained excellent positions in other institutions.

Aside from these special cases, positions in the Laboratory were given to a number of emigré scientists who had not been invited to

the United States by the Hospital. They received fellowships or research appointments after they had made their way to New York. In 1938, five refugees were regularly working in the Laboratories; in 1939, there were twelve, six on a volunteer basis. In July of 1942, fourteen emigrés were working in the Laboratories; of these twelve were paid, two were volunteers.

The Mount Sinai Laboratories were also open to medical observers from abroad who wished to learn American methods before taking medical licensure examinations here. Numbers of these physicians visited the Laboratories—some for a few hours, some for a month or more—for this kind of informal observation as guests of the Hospital. Staff members of the Chemistry and Pathology Laboratories also gave courses to help prepare emigré scientists for American examinations. One of these was a two-month course given by the Hospital's Chemist and his assistant to a group of about twenty refugees in 1940. Since that time, all those who took the course have secured positions in American laboratories.

After 1933, arrangements were made to allow many emigré physicians to work on the staff of the Out-Patient Department or to visit the Department as observers. A deliberate effort was made to accept as many as possible in order to give these physicians an opportunity to become acquainted with American medicine, American customs and the English language. Because State laws on medical practice forbid staff appointment for physicians who do not have New York licenses, some of these men were observers when the program began. But as an increasing number passed the State Board examinations, it was possible to appoint them to regular positions in the Out-Patient Department.

The number of refugee physicians in this Department in 1933 was fifteen. A year later it had more than doubled. The report of the Department for 1934 notes: "Special clinical opportunities were provided for refugee German physicians. Each of the two afternoon medical clinics has taken a group of six to ten; others were assigned to some of the special medical clinics. Altogether, there are nearly forty refugee German physicians working at present. . . . In the afternoon medical clinic, they receive a retraining under the direction of physicians on the medical services. As they are not yet licensed to practice medicine in this State, the diagnostic investigations as well as the treatment of the patient remain under the direct supervision of

members of the visiting staff of the Hospital. This opportunity for retraining in medicine is most important for them in order that they may familiarize themselves with American methods of medical practice. Opportunities are also provided for them to attend all the clinics and departmental conferences of the Hospital and to make an increasing number of contacts with American physicians."

Between 1933 and April of 1938, 182 refugee physicians had received appointments in the Out-Patient Department; thirty-four had served as observers only. In April, 1938, 105 appointees and twenty-one observers were still in the Department; seventy-seven former Staff members and thirteen observers had received appointments elsewhere. During the year new appointments were made. By 1939 "There were 137 German, Austrian, Italian and other refugees working with the regular staff in almost every out-patient clinic." Five Directors formed a special committee to work with the chairman of the Out-Patient Department on whatever problems might arise from the effort to extend all possible privileges and opportunities to refugee physicians. The number of displaced physicians in the Department eventually increased to more than 200. This figure remained more or less constant for the three following years; in June of 1942 there were 190 regular appointees and fifteen observers.

In addition, thirty-six physicians served one-year "externships" in the Out-Patient Department under an arrangement suggested by the National Committee for Resettlement of Foreign Physicians. The purpose of this plan was to help the newcomers in their examinations for license to practice, to acquaint them with the practice of medicine in America and to prepare them for practice, especially in rural districts. Most of the refugees had been city specialists; the training they received under this plan gave them not only an introduction to American methods in medicine, but also a broader medical knowledge which equipped them for more general practice.

For men shattered by persecution—some by actual experience in concentration camps—association with American colleagues and the renewal of professional respect proved of real therapeutic value. Several New York hospitals offered such externships; Mount Sinai accepted the largest number. The externs rotated in groups of two or three from one clinic to another. They also attended ward rounds, staff conferences, pathology conferences, lectures and other hospital functions to help become useful practitioners in the United States.

The externships existed for two years; there were twenty in 1939-40 and sixteen in 1940-41. All these physicians are now successfully established.

Some refugees also served on the Hospital's in-patient medical staff. In June, 1942, there were six: two in medicine, two in the Electrocardiography Department, and two were Resident Physicians. One more was appointed later, as Anesthetist. In the years 1933 to 1939, there were altogether thirty-eight refugees on the Medical Staff, including those in the Laboratories. Outside the Laboratories, figures for separate departments show, in 1938, two in Physical Therapy and one in X-ray. In 1939, two served in Electrocardiography, two in Physical Therapy, and one in Anesthesia.

Naturally, members of the Medical Staff of the Hospital and Out-Patient Department by no means limited their efforts to help refugees to official Hospital activities. Many of the Hospital's physicians were active in the National Committee for Resettlement of Foreign Physicians. Others worked closely with other refugee organizations to help make available in the United States the medical contribution the exiles had to offer.

Fourteen refugee students were graduated from the Mount Sinai School of Nursing; other emigrée students of nursing could not be accepted because they could not meet the State Board academic requirements. This service was important because only citizens could enroll in the municipal schools of nursing. Mount Sinai was able to accept students who had their first citizenship papers only.

The number of refugees admitted as patients to the Out-Patient Department varied sharply. The peak years were 1938 and 1939, when refugees accounted for one-fourth of the total new admissions. The Annual Report for 1939 recorded: ". . . district limitations were waived where possible in order to assist in their choice of medical care, and a large proportion of those residing in New York City found their way into the Hospital's Out-Patient Department. In the latter half of 1939, several surveys of new patients revealed an intake of refugees amounting to 25 percent of the total number of new admissions. Special considerations frequently entered into the care of these individuals, requiring time-consuming adjustments, correspondence and follow-up procedures." (One-fourth of the new admissions in that year was 2,539 patients, the total number being 10,157.)

No separate records were kept on the number of refugees treated

before 1938. In 1940, 2,035 refugees (20 percent of new admissions) were admitted to the Out-Patient Department. The following year, the number decreased to 1,492 (16 percent of new admissions). Thus, in the years 1939-41 the O.P.D. treated 6,066 refugee patients; about half of these were known to the National Refugee Service.

The practice of waiving regulations governing admissions was continued in order to care for these exiles. Social workers and physicians co-operated in giving special follow-up care to assure the refugees the best possible opportunity for eventual adjustment to the new country.

The earliest figures for refugees received as patients in the Mount Sinai wards are for 1940; in twelve months, from August, 1940, through July, 1941, the ward patients listed as refugees number 884. In the first five months of 1942, the total of patients known to the National Refugee Service was 140.

Many of the needs of the thousands of refugees who passed through Mount Sinai were met by the Social Service Department. The Social Service Report for 1938 comments: "Our clientele numbers many from the oppressed minority groups of Europe. The painful process of adjustment to a new and often lower standard of living by those who have recently come to the United States concerns us deeply and taxes our case work skills to the utmost."

The Department's aim was to help the patients and their families in understanding and adjusting to a new and difficult situation, complicated not only by new surroundings and ill health, but also by a social readjustment many found exceedingly difficult. The social workers often had to educate, as well as to assist, especially in furthering resettlement outside New York.

Another practical service of special value to many refugee patients was the advice given by the Hospital dieticians, working with the Social Service Department. Many patients needed special diets; others had difficulty securing an adequate and well-balanced normal diet. In many cases, the problem was at least as much economic as dietetic. A good part of the assistance given by the dietitians and social workers lay in helping to work out budgets so that food requirements were not sacrificed to other needs, like rent, light and clothing. The advice included suggestions as to the best places to buy, economical methods of preparing food, and so on—advice badly needed by women in a strange country.

The social service workers also helped find employment for dis-

charged patients and for their families. Those who needed medical appliances like orthopedic braces, dentures, and so on, were also helped to get them. In this work, the Department co-operated with other agencies, like the National Refugee Service. Some of those who had received such help later returned as volunteers to do the same service for others.

One final, and extremely practical, service rendered by the Hospital involved the employment of refugees by the Hospital itself. During the years the largest number of refugees was coming to the United States, about 200 were employed on the non-medical staff.

In July, 1942, thirty-five refugees were employed in different departments. The list of positions they filled is revealing of the skills they possessed and the Hospital's interest in placing them properly. There were three secretaries, one photographer, one dental hygienist, one physical-therapy technician, one radiotherapy technician, one X-ray technician, five laboratory technicians, one electrician, one bill checker, one assistant housekeeper, one elevator operator, two hall boys, four orderlies, one kitchen man, five dieners, two ward helpers and four porters. Some, like the orderlies, had been trained in the Hospital. Others were already qualified when they arrived.

This systematic and many-sided program continued as long as there was need for it. When the United States entered the War, the acute need was lessened. The Hospital, by that time, was getting ready to play a far more direct part in destroying totalitarianism than by simply helping its victims start a new life in a new country.

18

Science and Service

A NUMBER OF IMPORTANT DEVELOPMENTS TOOK PLACE IN MEDICINE during the years immediately preceding the Second World War. Some of these were primarily social and economic. Others were scientific. Taken together, they transformed, in the span of some ten years, virtually all aspects of medical and hospital practice.

From the social standpoint, one development overshadowed all others. This was public insistence on broadening the economic base of medical care to provide more and more adequate services for more people at costs they could afford. To a large extent, this demand revealed itself in the growth of group-hospitalization and health-insurance plans. It also showed itself in Government concern with ill health as a national problem and good health as a national asset.

On the scientific side, there were many brilliant advances in many fields. But far and away the most important were the beginning of modern chemotherapy with the sulfa drugs and the introduction of the antibiotics, beginning with penicillin. Without question, these two advances formed the most important contributions to medical science since the elucidation of the germ theory.

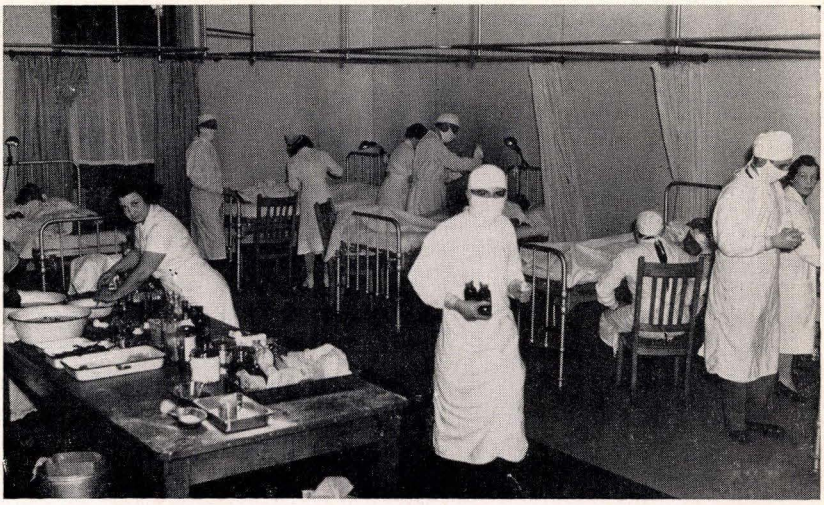
Between them, they produced a revolution in treatment methods, saved countless lives, and worked a profound change in both the incidence and severity of diseases against which medicine, until their advent, had been all but helpless. Their discovery and wide use changed the course of research. Their most profound effect, of course, was in bacteriology. But, because they made it possible for medicine to control or destroy so many formerly fatal diseases, they also made



Clinic in an Out-Patient Department Today



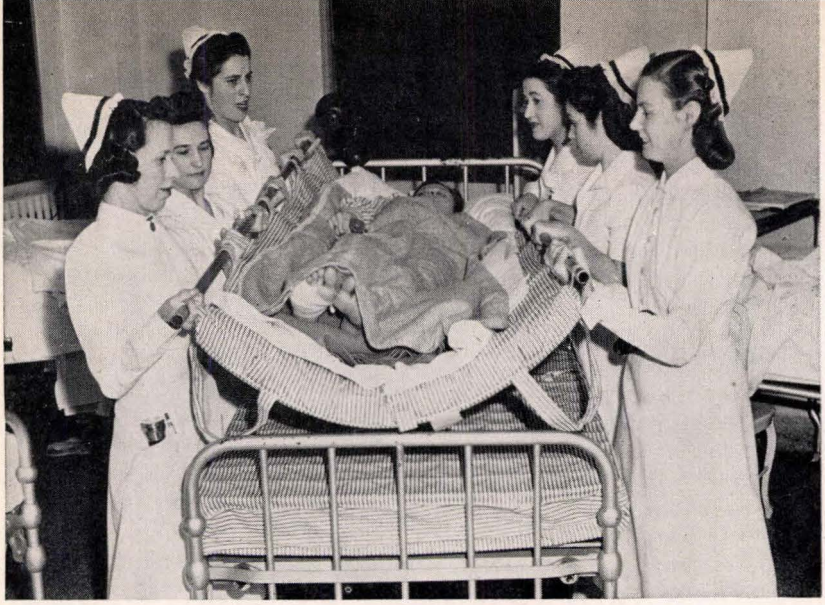
View of the Neustadter Home



The Blood Bank in Operation



Demonstration of Method of Extinguishing an Incendiary



Nurses Practice Emergency Evacuation of Patient



Demonstration of First Aid for Doctors. (Use of Telephone Book as a Splint)

it possible for people to live much longer. Hence laboratories everywhere intensified their work on the problems of the long-term diseases likely to afflict an aging population, and on the diseases neither the chemical agents nor the antibiotics could handle effectively.

Inevitably, the impact of these new agents on medical and hospital economics was also dramatic. Many patients who would once have been hospitalized could be treated with the chemotherapeutic agents or the antibiotics either in their doctors' offices or at home. The length of time patients spent in the hospital was cut by days or even weeks. Many complications following surgery either disappeared or, if they did occur, no longer demanded such long-drawn-out and expensive procedures to bring them under control.

For many years before the "miracle drugs" appeared, however, medical institutions and organizations were very much concerned with events and ideas which affected medicine's place in society. Generally, the trend was toward greater demands on the profession and a sharper insistence on its social responsibilities. These developments found their source in the conservation movement that began during the early years of the century.

Not until it was found that one-third of the men called up for service in the First World War had to be rejected for physical defects, many of them preventable, was a serious effort made to devise ways to conserve the country's health. For the most part, this effort took the form of agitation for compulsory health insurance, both Federal and State; most of the plans proposed followed the outlines of those which had been in force for many years in England and in Germany.

Many investigations of health needs and resources were undertaken, especially by private philanthropic agencies, during the twenties. The most sweeping was that of the Committee on the Costs of Medical Care, formed in 1926 and headed by Dr. Ray Lyman Wilbur. The Committee concluded that people in lower-income brackets received far less medical care than was necessary to maintain health. Although some of this lack could be blamed on poverty and, in some areas, absence of facilities, the Committee also concluded that the uncertain and uneven costs of illness were largely responsible for the situation. In its final majority report, the Committee recommended that the quality of medical practice would be improved by a system of group practice organized around hospital centers, and

that medical services should be paid for through group health insurance, either voluntary or tax-supported (compulsory).

A still unsettled controversy burst out immediately. But the fact that the Committee's Report appeared at one of the worst periods of the depression highlighted the urgent nature of the problems it discussed. Mount Sinai's depression experience of record numbers of out-patients, overcrowded wards, patients who were ragged and half-starved as well as ill, was typical of hospital experience everywhere. Thoughtful people, including many doctors, began to think of ways in which the constantly increasing cost of medical care could be met.

Doctors—general practitioners and specialists alike—had for years attempted to meet the problem by adjusting their fees to family circumstances. This was both inadequate and unfair, to both patients and doctors. Nor could hospital out-patient departments be saddled with the whole problem. There were not enough of them, even in the cities where they were concentrated, and in some places they did not exist; in addition, hospital funds, whether drawn from charity or taxes, had definite limits. Another very real factor was the reluctance of many people, especially in the middle-income groups, to accept "charity" care. They preferred to mortgage their homes or go into debt to pay medical costs, or to go without treatment or hospitalization, except in acute emergencies.

Many solutions were offered, especially during the late thirties. Mount Sinai, which had recognized the problem early, pioneered among hospitals with its Semi-private Pavilion and reduced-fee schedule, the Consultation Service and its active Social Service Department. It early joined Associated Hospital Service (the "Blue Cross," the first unit of which began functioning at Dallas, Texas, in 1929, and of which Dr. S. S. Goldwater became President in 1940). Associated Hospital Service was one of the first successful voluntary hospital insurance plans.

Similar plans were offered by many organizations, both non-profit and commercial. One of the most notable was the first of the medical-society sponsored plans which was begun in Michigan in 1934. In effect, it provided for group pre-payment of some medical and surgical costs, financed by premiums paid by employers and by employee groups, and closely supervised by physicians and members of the allied professions. Michigan's step was shortly followed by

similar plans, sponsored by other state medical societies. There was close co-operation between Blue Cross and the medical societies' plans, which became known as the "Blue Shield" plans. That in New York was organized in 1939.

The effect of the health-insurance movement on hospital practice was twofold: first, the demand for semi-private care increased steadily; second, the proportion of hospital income derived from such sources mounted from year to year. Hospitals, for the first time, began to serve the whole community, instead of the few rich and many poor, on a sound basis.

Other developments during the late twenties and early thirties also altered hospitals' relationship to the community. Most notably, Federal, State and local governments, largely as a result of the demands of the depression, assumed more and more responsibility in the health field.

Government health activities in the late thirties extended in two general directions. The first was toward provision of special care for special groups, as in the veterans' hospital system. The second was toward the control of diseases of special public importance. In line with the first trend, provisions were made during the depression to supply general medical care for those receiving public assistance; programs were set up for mothers and children, for the disabled, and for other groups needing special attention. These programs called for the individual and institutional co-operation of hospitals, doctors and public- and private-health agencies. Activities in the second category covered an extremely wide range; immunization programs, health surveys, tuberculosis detection and control campaigns, venereal-disease control programs, and programs emphasizing child and maternal health, health education, and so on, all were provided for.

Like other hospitals, Mount Sinai found that some of its own functions and programs overlapped those of the public-health agencies. But other Hospital duties—for instance, follow-up and reporting of venereal disease and tuberculosis cases—were increased as a result of the intensified activities of the tax-supported agencies.

The Hospital later found itself affected in another way, as the concept of public health broadened and both the medical profession and the public increasingly acknowledged the broad scope of government responsibility for the public health. This was primarily in research. Clinicians and laboratory workers working along the lines that most

interested the government's own medical organizations—like those at the National Health Center in Bethesda—found that Federal funds were available to finance their research, and that government agencies and personnel offered valuable co-operation in many projects. At Mount Sinai, the Shwartzman typhoid serum and the Chargin-Hyman-Leifer five-day syphilis treatment both benefited from such co-operation.

Much of the impetus behind both such Federal support of research and public and professional acceptance of it found its source in the two great scientific discoveries of the thirties: chemotherapeutic agents and the antibiotics. The first published reports of these new substances electrified the world; people called them, in all sincerity, "miracle drugs," and it was hoped that they would immediately open the way to further marvels. In a sense, this hope was not vain; but what it overlooked was the long and patient work that had preceded the sensation of the drugs themselves.

Until streptozon (Prontosil), the first of the sulfa drugs, was put to clinical use in 1933, there had been no effective chemotherapy for bacterial infections. An enormous amount of investigation and experimentation on the problem had been done before the 1930's, but results were consistently negative. It was thought that the metabolism of the invading bacteria was so similar to that of their human hosts that any drug toxic to the bacteria would inevitably be toxic to the host also. Medicine relied on serological treatment for bacterial infections.

But Gerhard Domagk, working in the laboratories of the I.G. Farbenindustrie, was struck by the promise of some of the investigations into the properties of the azo dyes which had been done early in the century. At least two azo dyes containing sulfonamide which proved to be powerfully bactericidal in the laboratory had been developed by the end of the First World War.

There, however, the work halted, until Domagk noted that those containing sulfonamide were more effective than other azo compounds as bactericides. Following this lead, he produced streptozon in 1932.

The first clinical report on this drug came from England in the following year: a ten-month old infant, dying of staphylococcal septicemia, was given streptozon, and a dramatic cure resulted. The medical world realized that this was the first evidence that drugs

with specific characteristics could be created to attack specific diseases or groups of bacteria. Other combinations of the chemicals from which streptozon was compounded were developed in rapid succession. The first of the sulfa variations—sulfapyridine, especially effective against pneumococcal infections—appeared in 1936.

Because pneumonia had been for many years one of the first causes of death in the United States, the new drugs were very carefully investigated here. The Mount Sinai Medical Report for 1938 mentioned them for the first time: "Of special interest is the emphasis on the treatment of common but serious diseases. A special study was conducted on the relative merits of serum, Sulfanilimide and Sulfapyridine in pneumonia therapy . . ."

Marvelous as the sulfas appeared to be, they were shortly overshadowed by the appearance of the antibiotics, the first of which was penicillin. Like the sulfas, the antibiotics were developed on the basis of work done long before; indeed, their action is based on the fact that the presence of one micro-organism can stop the growth of another. This had been known since the beginning of bacteriology. As early as 1896, in fact, a crystalline substance derived from a *Penicillium* mold had been shown, in the laboratory, to inhibit the growth of anthrax bacilli.

In 1929, Sir Alexander Fleming noticed that some agar plates on which he was growing *Staphylococcus aureus* had been contaminated by a mold. The affected colonies were transparent and the micro-organisms they contained were dying. Fleming identified the mold as a *penicillium;* he found that the broth in which it had grown was effective against several fever-inducing organisms of the *cocci* group and against the diphtheria group of bacilli. It was completely harmless to animals and to humans. Fleming noted, however, that filtrates from the broth were ineffective against a number of other pathogenic organisms. He suggested that the substance might prove a good antiseptic for wounds.

In 1940, a much more powerful penicillin extract was made by a team of seven scientists, led by Ernst Chain. It proved to be astonishingly effective against a very wide range of disease-producing organisms, and was instantly accepted by the medical profession. Most of the first production was restricted to the military; civilian use was impossible until four years later. When civilian allotments were made, Mount Sinai received thirty million units monthly; in the first

year that penicillin was used regularly at the Hospital, 361,000,000 units were administered. (In 1951 the figure rocketed to 56,798,000,000 units.)

The late thirties and early forties also saw Mount Sinai gathering the fruits of much work that had been done in earlier years. At the same time, the kaleidoscopic sequence of technical advances in medicine called for a number of reorganizations and adjustments within the Hospital itself.

For instance, in 1937, after the death of Dr. Louis Gross, the position of Director of the Laboratories, which he had held for a decade, was abolished. Research medicine in all three of the main branches of the original laboratory organization (chemistry, pathology and bacteriology) had progressed beyond the point at which one man could be responsible for their direction. It was necessary, therefore, to simplify administration and to give each laboratory autonomy under its responsible head. A step in this direction had been taken the year before, with the creation of the Mount Sinai Hospital Research Foundation as a separate corporation to handle the financial side of the laboratory operation.

To co-ordinate the work of the laboratories, work out the financing of the various projects, assign space and prevent duplication of research, a Research Administrative Committee was formed. This Committee was patterned after the Joint Conference Committee, through which the Medical Staff and the Board of Trustees had, for many years, maintained close relations. It included the heads of the laboratory departments, the heads of the major clinical departments, and the Laboratory Committee of the Board of Trustees.

Another effect of the technical advances in medicine resulted in the setting up, in 1932, of a Neurosurgical Service as a distinct unit under Dr. Ira Cohen, President of the Medical Board during the Second World War and a descendant of five of the original founders of the Hospital, who had received his early training at Mount Sinai. When the Neurosurgery Service was first set up, it was one of the few such services in a general hospital. Furthermore, it began functioning just at the time when many forward-looking medical men were beginning to criticize the trend toward over-specialization in the profession; they pointed out that too much concentration on narrow fields of interest would result in the specialists' overlooking the total needs of their patients in favor of rigid attention to details. In addition,

Mount Sinai as an institution had looked, by and large, with disfavor on atomizing its services; its philosophy was outspokenly that of a general hospital.

Nonetheless, Mount Sinai had excellent reasons for setting up such a service. Its general surgeons had been performing neurosurgery since the time of Dr. Arpad Gerster. After Gerster, came the brilliant Charles Elsberg who had done much of his work at Mount Sinai. In fact, the Hospital had an established and growing reputation as a neurosurgical center.

The growing complexity of organization and administration necessary in a modern hospital was further recognized in 1939. The Report of the Medical Board for that year reads: "The introduction of new techniques for diagnosis and therapy has transformed the medical service into a highly complex organization which bears little resemblance to the medical service of twenty-five or thirty years ago. . . . The refinement of medical techniques has necessitated the organization of six groups of medical specialists for gastro-enterology, hematology, allergy, thoracic diseases, cardiovascular diseases and diseases of metabolism and nutrition. Each of these groups . . . is headed by a physician holding the rank of Associate in Medicine. They collaborate with the general medical staff in the diagnostic and therapeutic problems related to their specialties and function . . . on all the clinical services of the hospital. . . . In addition, each . . . conducts the Out-Patient Clinic related to its specialty and each is concerned with one of the laboratories."

The staff in that year—exclusive of the Laboratory Staff, the Staff in the Dental Clinics and the House Staff—totaled 683. (This figure includes the Out-Patient Staff in all its divisions and the volunteers in different departments.) The medical and surgical services contained thirteen major divisions. The total number of hospital days was 232,292 for 17,360 patients; there were 343,041 consultations in the Out-Patient Department.

To co-ordinate the enormous amount of work involved in handling so large a group of physicians and patients, the Medical Staff in 1939 instituted monthly discussions of interdepartmental problems between the administrative and clinical departments of the Hospital. The Laboratories, the Out-Patient Department, the Social Service Department and all the surgical divisions all participated in these conferences. The newly re-organized psychiatric service (within the

Department of Neurology), whose members worked in all parts of the Hospital to advise on psychiatric problems and the psychosomatic aspects of disease, also took part in the conferences. The net result was real improvement in the Hospital's efficiency and in the care it could offer patients.

Meanwhile, a number of members of the Staff were making significant contributions to modern medical progress. Characteristically, they combined eminent practicality with sound theory.

Among them was the recognition of a new clinical entity called *regional ileitis*, an inflammatory disease of the intestines. Dr. Burrill Crohn was the first to co-ordinate a series of observations on this condition that had been made over a period of ten years, and to unify them into a single concept. He published his definitive study in 1932. The investigation into the intestinal inflammation characteristic of the disease had been begun in 1923 at Mount Sinai by Dr. Eli Moschcowitz and Dr. A. O. Wilensky; it was continued by Drs. Leon Ginzburg and Gordon Oppenheimer. Crohn, working in Dr. A. A. Berg's gastrointestinal ward, added his own clinical and laboratory observations, classified the symptoms and signs of the disease and developed both the diagnostic and treatment methods needed to combat it.

In the following year, Dr. Moses Swick, then an Adjunct Surgeon, received the American Medical Association's Class I Gold Medal for his achievement in developing a radio-opaque substance that made it possible to diagnose some kidney disorders more clearly and accurately than by previous methods. Diagnosis in this part of the body had long been a problem for physicians. Long and difficult cystoscopic examinations were the only reliable methods of investigation. The challenge was to find a substance that would outline the area sharply enough to make clear and revealing X-ray pictures, yet not be harmful to the patient. The first attempts were made (at the Mayo Clinic) in 1923, and the work was followed up at many hospitals.

Swick began his own investigation into the problem in 1928, at Altona, Germany, using a substance called *Selectan Neutral*, which had been developed for treatment of streptococcal infections. This substance contained a very high percentage of iodine; rabbit experiments showed that it was not harmful in small doses, and it produced a fair visualization of the urinary tract. It proved unsatisfactory

in human patients, however. Swick continued his search for a similar substance, investigating more drugs of the *Selectan* group in laboratories in Berlin. After many experiments, he chose *Uroselectan* (known as *Iopax* in the United States), a close chemical relative of the first compound. It had the advantage of producing no ill effects in the patient, and it made possible clear, accurate pictures even though its iodine content was much lower.

It was also in 1932 that the first paper on a new and effective method of treatment for peptic ulcer was published from the Gastrointestinal Clinic at the Hospital. This was Dr. Asher Winkelstein's intragastric drip therapy, a completely new approach to the ulcer problem. Winkelstein was convinced that the free hydrochloric acid and pepsin in the stomach were primary causes in the development and persistence of peptic ulcers, no matter what the root cause of the condition. As a corollary, he believed that the most effective medical treatment would be that which neutralized the free acid for the longest period, and at the same time gave the patient adequate nutrition. A good ulcer treatment would also prevent formation of free acid, especially before meals, and either prevent or reduce to a minimum the pain of the condition.

Winkelstein devised a simple apparatus which would allow a mixture of milk and sodium bicarbonate to drip continuously into the stomach. When the drip treatment was first used, it was administered on a twenty-four-hour basis for as long as two or three weeks. Later, however, more detailed physiologic studies (carried out with Drs. Albert Cornell and Franklin Hollander at Mount Sinai) showed that modification was possible, especially for patients not too acutely ill. Alumina gels or other substances were used with the milk, and the patient was allowed three substantial bland meals a day, using the drip only at night.

Another honor came to the Hospital in tribute to the discovery of the Shwartzman phenomenon by Dr. Gregory Shwartzman, head of the Bacteriology Laboratory. His original investigative work in producing immunity against bacterial diseases—specifically a serum against typhoid fever—brought him the American Medical Association's Class I Gold Medal in 1934.

The serum had been developed in the Mount Sinai Laboratories and tested, in 1933, in Louisiana by Shwartzman and representatives of the U.S. Public Health Service. Joint reports from the Mount

Sinai investigators and from the U.S.P.H.S. representatives indicated that the treatment had been successful in the South. During the year Shwartzman received the A.M.A. award, the serum was successfully tested again under emergency conditions, when an outbreak of typhoid fever in a large circus threatened the city of Detroit with a major public-health problem.

The University of Buffalo, in 1935, presented its prized Lucien Howe medal to Dr. Joseph Globus and Dr. Sidney Silverstone for their studies of the diagnostic value of disturbances of the visual field and other ocular disturbances in certain types of brain tumors. Globus, already well-known for his work in neuropathology, was also the editor of the *Journal* of the Mount Sinai Hospital, which he had founded. The purpose of the *Journal*, Globus has written, was educational; he had been impressed by the striking success of the Clinical Pathological Conferences and the popularity of the Hospital's other approaches to the physicians in the community. He thought that, if as many as three hundred busy physicians would make a point of attending the Clinical Pathological Conferences every week, they would also be interested in receiving the same sort of information in printed form. He undertook to interest the Staff and Trustees of the Hospital in the idea of the *Journal*. To be educationally effective, the *Journal* should not contain experimental material, he determined; rather, it should emphasize the Hospital's experience with "improved methods for the recognition and treatment of disease."

In 1933, Globus circularized the Hospital Staff and found that they were in favor of such a journal. With the approval of the Board of Trustees, the first issue was planned for May, 1934. It included the 1934 Welch Lectures on *The Physiology of the Anterior Pituitary*, delivered by the distinguished J. B. Collip, and articles by Dr. Robert Frank, Dr. Kaufman Schlivek, Dr. Luisa Rouch, Dr. Arthur Touroff and Dr. Henry Jaffe of the Mount Sinai Staff. Abstracts of staff-written articles appearing in other journals were also included, as a matter of policy.

The authoritative *Quarterly Cumulative Index Medicus* listed the *Journal's* articles from the first issue; the *Journal* of the American Medical Association also lists and abstracts its material. Medical schools, libraries and practitioners in many countries subscribe to it. One of its most popular features is the periodic publication of a special issue dedicated to a prominent member of the Hospital Staff,

containing articles by eminent colleagues and, often, former students of the man to whom the issue is dedicated. Such contributions come from all over the world, and help to make these *festschriften* anthologies of permanent value on the aspect of medicine that most interested the man in whose honor they are compiled.

Another contribution made by the Staff members at the Hospital during the thirties caused a major sensation when it was announced on April 12, 1940. This was the five-day treatment for syphilis, which was developed by Drs. Louis Chargin, Harold T. Hyman, and William Leifer. The announcement of this treatment, which cured 85 percent of the patients in whom it was tried, claimed front-page space in newspapers all over the country and precipitated an enormous amount of discussion in medical circles; prior to public announcement, it had been described at a number of medical meetings. It was backed by nearly a decade of patient experiment, first in the laboratory and then in carefully selected patients.

The final stages of the investigation illustrated very well the new responsibilities and functions the Hospital had acquired during the twenty years of social change after the First World War. They were carried out under the supervision of a committee including Dr. John S. Mahoney of the United States Public Health Service, Drs. John L. Rice and Theodore Rosenthal, of the Health Department of the City of New York, and Dr. Walter Clarke, of the American Social Hygiene Association. In addition, the Committee included Drs. Walter Palmer and Eugene DuBois, the Heads of the Departments of Medicine at Columbia and Cornell Universities, as well as Dr. George Baehr, Head of the Medical Service at Mount Sinai, and, as its chairman, Dr. Charles C. Lieb, the Head of the Department of Pharmacology at Columbia. Dr. Rice presided at the meeting at which the public announcement was made, and which was held in collaboration with the Academy of Medicine.

Patients on whom the treatment was to be tested were referred to the Hospital by the Health Department, treated by the Hospital physicians, and then examined alternately at the Social Hygiene Clinics of New York and Bellevue Hospitals. The patients' blood was tested at the Hospitals' Laboratories and at the laboratories of the city Health Department and the U.S.P.H.S. Laboratory at Stapleton, Staten Island.

The main reason for this extraordinary caution, of course, was the

extraordinary nature of the work in hand; the mere promise of a rapid cure for one of man's most dreadful afflictions placed a tremendous responsibility on everyone connected with the work. Syphilis was estimated by some authorities, at that time, to affect from two to six percent of the adult population of the United States, and more than half a million new victims were infected yearly. The standard treatment for the disease was so prolonged and disagreeable that 84 percent of those who undertook it did not complete the year-and-a-half to two-year course.

The basis for the treatment was laid in 1931, when Dr. Hyman, Dr. Samuel Hirshfield and Mrs. Justine Wanger, studying the problem of "shock" reactions to transfusions and intravenous injections of many kinds, concluded that the fault lay in the speed with which the injections were given. They discovered that the ideal rate for intravenous injections was sixty to ninety drops a minute. This gave the body time to adjust naturally to the introduction of foreign substances, and also permitted injection of toxic substances with impunity. In 1933, Dr. Chargin, syphilologist at Mount Sinai and the New York City Department of Health, suggested that the slow-drip method might be used for the injection of large amounts of arsenicals in syphilis patients.

Twenty-five patients with early syphilis were treated, each receiving about three months' supply of neoarsphenamine (4 to 4.5 grams) in five days. Five years later, fifteen of the group were still under observation; their blood and spinal fluid Wassermanns were negative. Funds to continue the work could not be obtained until early 1937, when the New York Foundation, the Friedsam Foundation and the John and Mary Markle Foundation supplied $26,000 to be administered by the Committee on Neighborhood Health Development.

The second group of patients numbered eighty-six. Of these, 85 percent could be followed up and were found to have been cured. There were relatively few toxic reactions, and one death; the less toxic mapharsen was then substituted for neoarsphenamine. In the 265 patients subsequently treated with mapharsen, toxic reactions were virtually eliminated.

One of the advantages counted on by public-health officials and medical men was the fact that the five-day treatment cut the cost of treating syphilis to less than $90; conventional treatment cost be-

tween $250 and $500, and late syphilis patients being cared for by the State needed far greater expenditures.

For a time, it looked as if Hyman, Chargin, Liefer and the rest had realized Ehrlich's hope for a "magic bullet." But, ironically, almost before other hospitals had time to start using the treatment for their own patients, the penicillin treatment for syphilis was established as the standard method.

This treatment was only one of many peacetime achievements which were shortly to be overwhelmed in the cataclysm of the Second World War.

19

Mount Sinai's Third War: Third General Hospital

MONTHS BEFORE PEARL HARBOR, MEMBERS OF THE MOUNT SINAI STAFF—doctors, nurses, technicians and other employees—joined the Armed Forces. Some were called or volunteered from the Reserves; others simply volunteered. As the situation worsened, and it became plainer that the United States would join the battle, the Medical Staff of the Hospital realized that a much larger number would be called, and soon. The dismal course of the war up to the point of Pearl Harbor justified their foresight.

Plans had to be made. Many of the Trustees, as they had in the Civil War and in the First World War, prepared themselves to take up the duties which civic-minded men assume as part of their moral responsibility toward their country in time of war. Others joined the armed services.

Characteristically, Mount Sinai's first plan as an organization was a piece of practical humanitarianism. Many doctors, especially among the younger men, realized that, when called, they would be away from home, perhaps for many years. Their earnings would be seriously cut; their dependents almost surely would face hardship.

To meet this problem, the Medical Board of the Hospital and the Association of the Junior Medical Staff joined in creating a Military Emergency Fund in March, 1941. This Fund, probably the only one of its kind, was designed "to assist them (doctors in service) in maintaining life insurance and minimal obligations to their dependents," and

at the same time to enable those who remained behind to share in the responsibility of war service. The Fund was to be administered by a Committee of three Trustees designated by the President of the Hospital; the Committee would be advised by the President of the Medical Board and the Chairman of the Association of the Junior Medical Staff.

The Fund itself was to be raised from assessments, fixed by the Administrating Committee, upon the income of each member of the Medical Board and the Junior Staff. The assessments were based on the total professional income from all sources of the physicians remaining at home, as reported for the purpose of Federal income taxes. The doctor-members each year, from 1941 through 1945, voluntarily submitted this information and in each year the assessment on each member of the Fund was fixed at two percent of total income minus professional overhead.

When the assessments were in hand, payments were made to members in the Armed Forces in monthly amounts computed on the basis of the number of years the beneficiary had been a member of the medical profession and the number of his dependents. Later, the maximum monthly payment to any beneficiary was limited to $150. The payments were to continue for six months after honorable discharge, and, in the event of death or total disability while in military service, for two years after the death or the onset of total disability.

The Fund was also augmented by contributions from the Consultation Service Fund made by physicians on the Consultation Service who waived a substantial part of their compensation in order to share in this activity. Voluntary contributions were also received from members of the Consultant Staff who were not members of the Fund.

In the first year of operation, ending June 30, 1942, total Fund income from all sources was $38,485.84; payments to beneficiaries amounted to $6,816.62. There were only eleven members in service. In the next year, ending June 30, 1943, total income was $33,424.68, and the total benefits paid to forty-five members in service was $33,692.14. Thus, the early start of the Fund made possible an operating surplus which it could not have accumulated later.

The largest number of beneficiaries to receive payments was forty-eight, during the third and fourth years of the Fund's existence. The smallest amount paid to any doctor monthly was $12; the smallest total amount was $456. The largest single monthly payment was $300; the largest total payment to any one doctor was $7,566.65. The aver-

age monthly payment was $80.10, the average annual payment $961.20. The average total payment to each doctor was $3,393.15.

The total income received by the Fund from the doctors who paid assessments was $113,264.29; total contributions from the Consultation Service were $59,773.75. Voluntary contributions from Consultants amounted to $7,664.53. The benefits paid to members of the Fund in service totaled $162,871.19, the highest amount in any one year (the year ending June 30, 1944) being $43,380.10, the smallest amount $6,816.62 in the first year's operation.

At the end of the War there remained on hand, after all payments had been completed, the sum of $18,014.32. This surplus was larger than had been anticipated because many doctors voluntarily refused the payments to which they were entitled for the six months' period after their discharge from military service.

The distribution of the remaining balance of $18,014.32 was made, in accordance with the recommendations of the Medical Board and the Association of the Junior Medical Staff, in a number of ways: 1) to the Consultation Service of the Mount Sinai Hospital for redistribution to the younger physicians who had contributed; 2) to the President of the Mount Sinai Hospital as a contribution by the Medical Staff to the Jacobi Library, to buy books which would not ordinarily be purchased for the Library out of the current budget; 3) for the preparation of a book plate in memory of the members of the Mount Sinai staff who died in military service during the Second World War and for a similar commemorative metal plate to be placed in the Library; 4) for distribution to members of the Association of the Junior Staff for services rendered to ward patients entitled to Workmen's Compensation and Medical Insurance benefits.

(The expenses for the administration of the Fund, for secretarial work, bookkeeping, accounting, printing, telegrams and mailing for the six years amounted to $11,000. This sum was contributed by the Trustees of the Hospital.)

The value of the Fund in relieving the hardship of families of doctors in the service was attested by hundreds of letters.

The Military Emergency Fund was only one of the steps taken by the Hospital to prepare itself for war. An earlier move was the establishment of the Hospital's Blood Bank—a step which turned out to be vital, first in the Battle for Britain, later in building of adequate blood supplies for our own forces.

The use of stored blood in transfusional surgery had been attempted occasionally during the First World War, after Dr. Richard Lewisohn of Mount Sinai had developed the citrate transfusion method. Citration had eliminated the problem of clotting and the need for direct transfusion. But it was not until the early 1930's that, in England and the United States, the possibility of storing blood from donors' blood was explored. During this time some of the Mount Sinai staff undertook a long series of studies of the comparative efficacy of stored and fresh blood in transfusions, the changes that took place in stored blood and related problems. Convinced that stored blood could be used and that it was essential to the treatment of surgical and medical patients, Mount Sinai organized one of the first blood banks in 1938.

The Bank was operated on a wholly voluntary basis—in fact, on a kind of barter basis. None of the donors was paid. Family and friends of patients on the wards—for whom the Bank was primarily established—contributed their blood to replace that used by the patients. Only in cases of grave emergency, when no donor of the matching blood group was available, were supplies used for patients on the Private or Semi-private Pavilions. And only when the bank was in short supply in particular blood groups was it necessary to call in paid professional donors. Each Service of the Hospital was expected to keep its requirements on hand in the Bank. Between 1938 and 1940 the Bank furnished blood for approximately 4,500 transfusions.

With the fall of France and the subsequent blitz-bombing of England, the Blood Bank was converted from a peacetime to a wartime basis. Mount Sinai was one of seven New York hospitals in 1940 to co-operate with the Blood Transfusion Betterment Association and the American Red Cross in the Blood for Britain program. Up to that time the Mount Sinai blood bank had been storing whole blood. The Blood for Britain program of the Bank, however, called for a different plan. Instead of whole blood, plasma—the liquid or serum part of the blood—was separated from blood given to the Bank and stored.

Many deaths in the First World War could not be prevented because blood for transfusions was not available at the critical moment. Under the chaotic conditions of battle, transfusions were rarely performed. Direct vessel-to-vessel transfusion was a difficult, time-con-

suming procedure and the modern indirect method was still not perfected. Moreover, suitable donors with compatible blood could not always be reached. And stored supplies of fresh blood were, to all intents and purposes, unavailable.

With the discovery, between the wars, that plasma is an adequate substitute for whole blood in those cases where there has been no considerable loss in red blood cells, a new vista opened for both civilian and military medicine. Plasma can not only be stored in both liquid and dry forms for longer periods of time than whole blood but, more important, it can be injected intravenously without the compatibility tests needed with whole-blood transfusions.

The Blood for Britain program enlisted the support of a volunteer group of 125 doctors, nurses, technicians and others on the Hospital's staff. At each of the three weekly sessions, fifteen doctors, twenty nurses, three technicians and others were in attendance at the Bank—volunteering their services after the regular day's work. The Hospital supplied linens, drugs, chemicals, laboratory equipment and supplies and a refrigeration unit capable of storing 150 pints of blood at 2-4°C. An entire floor was given over to the program.

Donors from every walk of life, from every part of the city and neighboring communities were attracted to the Hospital. From Hester Street and Park Avenue, from Westchester and the Bronx, from Long Island and New Jersey came clerks and stenographers, bankers and society matrons. Many of the Hospital staff personnel themselves gave their blood in the fight for freedom.

The blood was citrated, Kahn-tested and then centrifuged for twenty minutes. The red cells, white cells and platelets then sank to the bottom of the containers. When the plasma was absolutely clear, it was suctioned off into 2,000 cc. bottles. Cultures were made to make sure that the plasma was sterile. If it was, the plasma was again suctioned off, this time in quantities of 250 cc. into bottles containing 250 cc. of normal saline. These were sealed, and each was equipped with special needles.

When the plasma was needed, the bottle was simply turned upside down, the needle inserted into the cork, tubing attached, and the transfusion started.

In addition to the Blood for Britain program, the Hospital Staff were quick to organize an American counterpart in advance of official requests to do so.

The Hospital was active in public service in other ways. In the late pre-war days—in addition to those already on active duty—it lent its leaders, lay and professional, to Government service, as it did in the First World War. Mr. Leo Arnstein, President of the Hospital, in the spring of 1941 was appointed First Deputy Commissioner of Welfare in the City of New York. He held the portfolio of full Commissioner for a year and a half (February, 1943-August, 1944) until his untimely death. In all, eight of his colleagues on the Board of Trustees were also engaged in vital defense work with or advisory to the Government.

Dr. George Baehr, President of the Medical Board, was, in 1941, one of the more important "loans" of the Hospital to the Government. His genius for organization and medical leadership, evidenced early in the First World War and climaxed at the end of the Second War by his election to the Presidency of the New York Academy of Medicine, made him the logical choice as Chief Medical Director of the newly created Office of Civilian Defense. Among the achievements of the Medical Division under his direction were: establishment of an emergency medical service in every state and community throughout the country; a countrywide program of protection and mutual aid in connection with water-supply systems and sanitation facilities; establishment of a nationwide system of casualty receiving hospitals; and organization of mutual aid, on a statewide or regional basis, for distribution, in an emergency, of personnel, equipment and supplies, including blood plasma. At the instigation of the Medical Division and with its assistance, 150,000 nurses' aides were trained under the Red Cross for wartime volunteer service in hospitals.

The Day of Infamy, when the country rocked with the Pearl Harbor disaster, found the entire Hospital geared psychologically to the war effort. The possibility of air or naval attack on our shores called for the mobilization of emergency Hospital resources, not only for its own patients, personnel and plant, but for the community as a whole. In co-operation with the Office of Civilian Defense, it formed four Catastrophe Units as part of the day-and-night emergency medical service of New York City. The Units were ready to go out at a moment's notice to care for victims of enemy action or other disaster. Extra beds, extra surgical units and other facilities were on the alert around the clock. The staff and employees were rigidly drilled so that each of them knew his exact duties in case of an alarm. Two extra

ambulances were placed at the disposal of the Hospital, one by the American Women's Volunteer Services and one by the Department of Hospitals. The unit assigned to each of these ambulances had all the portable equipment needed for establishing a field dressing station. Volunteer ambulance drivers were on duty at the Hospital twenty-four hours a day.

With pictures of blitzed-out London constantly in mind, the Hospital installed special safety and fire-fighting equipment. The entire institution could blackout in a matter of minutes. The staff took part in air-raid drills, blackout rehearsals and practice in extinguishing incendiary bombs. A conception of the magnitude of the task may be gained from the fact that the eighteen Hospital buildings, covering most of three city blocks, have fifty-three different roof levels to be guarded, and more than 9,000 windows to be darkened.

Less spectacular but no less vital were the training programs initiated by the Hospital. The first one, begun only six weeks after Pearl Harbor, saw 135 senior physicians on the Hospital staff—all of them eminent specialists in their fields and many of world-wide renown—engaged in a first-aid course that took them back to their "pre-med school" days. They worked as hard to learn elementary emergency procedures as at their far more exacting daily work.

The physicians were told how to use equipment in an air raid, and practiced their lessons on their colleagues who acted as "victims" in demonstrations. They were taught how to use an eye-dropper on an air-raid victim, how to make and use triangular bandages, how to improvise splints out of umbrellas, telephone books and rolled-up newspapers, if medical kits ran short.

Similar courses were held for nurses and lay personnel on the Hospital staff and for the community at large. Guest speakers from the military services and visitors fresh from Great Britain presented lectures which had a lasting impact.

Mount Sinai was the first voluntary hospital in New York City to open its wards to Red Cross nurses' aides. Throughout the war years it graduated several thousand aides who did so much to alleviate the acute nursing shortage.

There were many other wartime activities of the Hospital worth noting—the independent and government contracted research work on war medicine, the Selective Service activities and salvage work—

but the largest single contribution the Hospital made was the Third General Hospital of the Army of the United States.

Inheritor of the tradition of Base Hospital No. 3, the Mount Sinai Unit of the First World War, the Third General was organized in 1940. Several members of the Unit were already on duty when the Hospital was activated at Camp Rucker, Alabama, September 1, 1942. These were ordered from the various posts where they were stationed to proceed to Camp Rucker where they were to meet the New York contingent.

Three days before the activation of the Third General Hospital, an impressive ceremony was held in the Blumenthal Auditorium at the mother hospital in New York. There, in the presence of the Board of Trustees, distinguished doctors and guests, Dr. Herman Lande, temporary Director of the new Unit, was presented with the American flag of Mount Sinai's First World War Unit, Base Hospital No. 3.

The Third General Hospital, like its predecessor, was commanded by a Regular Army Officer, Lt. Col. George H. Donnelly. Dr. Lande, as a Lieutenant Colonel, served in a dual capacity as Executive Officer and Chief of Medicine. His command functions, shortly after activation, became so heavy that he relinquished the post of Chief of Medicine to devote full time to his executive duties. Major (later Lieutenant Colonel) Samuel Karelitz took over the duties of Chief of Medicine. Lt. Col. Percy Klingenstein served as Chief of Surgery. In September, 1942, the Third General comprised forty-three medical and dental officers and thirty nurses. It remained at Camp Rucker from September 1, 1942 to April, 1943.

The first few months of its service were devoted to basic training —the Army conversion process whereby civilians are changed into soldiers. These months, filled with drill, forced marches, military indoctrination and orientation in military medicine and sanitation were broken by a visit by Mr. Waldemar Kops, then Acting President of the Hospital, and Dr. Joseph Turner, its Director.

Three months after the Third General was activated, enlisted men were attached to it. Many of them were raw recruits, but the officer personnel had so progressed in their own training that they were considered adequately equipped to train the enlisted men.

By January, 1943, a number of officers had been detached for specialized training in civilian and military medical centers throughout

the country. Upon their return, rumors that the Unit was about to go overseas ran rife. On the 30th of March they were confirmed, for it was on that day that the Third General was alerted for overseas duty. Like millions of others in uniform, however, they hurried only to wait. Movement orders were not actually received until April 14th and the Unit, which had now grown to fifty-six officers, 116 nurses, one warrant officer and 500 enlisted men, actually left Camp Rucker April 16, 1943.

The Third General arrived at its staging area in Camp Shanks, N.Y., a few days later. The personnel were processed for overseas duty; they received their immunization shots, combat equipment and final instructions. On May 3, 1943, they received their final alert. That day the Commanding Officer, twenty-two officers and eleven enlisted men left Camp Shanks as an advance party. The Third General sailed on May 5, 1943—appropriately enough on the H.M.S. *Pasteur*, an English transport which had formerly been in the French Maritime service.

Following an eventful voyage the Third General disembarked at Casablanca and marched five miles to Camp Don B. Passage. There it was to remain for a relatively short time, housed in green pyramidal tents, but long enough to learn first-hand the meaning of filth and flies to men and to medicine. For a part of the Unit's stay, the nurses, like those of Base Hospital No. 3 of the First World War, were quartered separately—in two French schools in Casablanca proper. While in the town the nurses were attached to other Army hospitals—the Sixth General, 66th Station and 69th Station—for temporary duty. Later on they were reunited with the Unit at Camp Don B. Passage.

About a month after the Third General arrived in Africa, it was ordered to move to Mateur, Tunisia. There it was scheduled to open a 1,000-bed General Hospital, augmented by a 1,000-bed tent expansion hospital. On June 25, 1943, an advance party of fifteen officers, ten nurses and 100 enlisted men departed. They were followed on July 2nd by the rest of the Unit and seven or eight hundred tons of essential equipment and supplies, all of which were installed and in operating trim five days after the Third General arrived in Mateur on July 10th.

The town showed many signs of the great desert duel between the Allied and Axis forces that was just over. The arrival of the Unit

coincided with the Sicilian invasion. Colonel Donnelly was informed that within five days it could expect 500 patients.

The Hospital was located on a hillside outside of Mateur, and in the valley below to the north was a large P-40 fighter base. Many planes "buzzed" the Hospital in its early days. Shielding the airfield from the sea was a thickly wooded 1500-foot mountain. On the other side of the mountain was a sweet-water lake which emptied into Lake Bizerte. Beyond that Lake was a range of hills blocking off Bizerte and the Mediterranean. To the southeast were rolling hills where hundreds of tanks and half tracks were parked.

The forty-odd white stucco iron-roofed buildings into which the Unit had moved had to be scrubbed, repaired, organized and equipped. The tents which were to serve as hospital units as well as quarters had to be set up and equipped. The very fact that patients were received on the 15th of July, in spite of the enormous difficulties, attests to the organizational skill of the various members of the Unit as well as the Unit as a whole.

For the first air-borne patients of the Sicilian campaign the hospital functioned as an evacuation unit; it kept patients on a fifteen- to thirty- or sixty-day basis until they could be evacuated further to the rear. It also served as a field hospital and gave many patients their first definitive treatment. But functioning as a general hospital, it received and cared for long-term patients, held disposition and reclassification boards and performed the elective surgery necessary for the rehabilitation of men who were to remain on active duty in the theatre.

Even though it did not have some essential diagnostic equipment and in spite of numerous other problems, within twelve days after it had opened, the Third General had 1,255 patients on its hands. In one three-day period alone, 710 new patients were admitted. By August, the flow of surgical patients was so great it was necessary to use the 1,000-bed permanent buildings for surgical cases and to transfer the medical service to "tent city."

Malaria and neuropsychiatric disorders were the chief disorders the medical service was called upon to treat. During July and August, 1943, over 1,000 cases of malaria alone were treated. During this time the Mount Sinai doctors learned about some of the bizarre characteristics of North African and Italian malaria, especially their cerebral form. They were also learning about war wounds and the kind of

wartime traumatic surgery unknown to most of them before their service. They were learning, as they never would at home, the tremendous capacity of the human organism to take insult and injury beyond all measure and nevertheless to survive and recover.

During the Sicilian campaign, additional medical officers and nurses and a neurosurgical team were attached to the Hospital, enabling it to operate as a 2,000-bed unit. In addition, 200 Italian prisoners of war as well as French and Arab personnel helped in the day-to-day running of the Hospital.

When the Sicilian campaign ended on August 17, 1943, over 5,000 patients, exclusive of air-evacuation cases, had been admitted to the Third General Hospital. Eighty percent of these had been evacuated from Sicily and 60 percent of them were battle casualties. The Third General was the only general hospital in the Bizerte-Mateur area during this entire campaign.

On September 3, 1943, the British Eighth Army crossed the Straits of Messina. With the invasion of Reggio di Calabria on the toe of the Italian boot, the long and savage Italian campaign was under way. The American armies were soon to follow at Anzio.

As the Italian campaign progressed, the character and function of the Third General changed. Four other general hospitals moved into the Bizerte-Mateur area. The Third General, during this period, functioned essentially as a general military hospital treating long-term cases.

With the northern thrust of the Italian campaign in the winter of 1944, members of the Medical and Surgical Staff of the Third General were confronted with a new type of military medical problem which challenged their patience as much as their skill. The problem was trench foot—something the soldiers who fought their way up the spine of Italy will never forget.

The rigors of the various campaigns in which the Third General took part and the hardships of North African life were relieved during the fall of 1943 by the founding of "Honeymoon Lane"—a miniature tent city that was set up to house a number of officers and nurses who decided that wartime Africa was as good a place as any to start married life. This same period saw the organization of the Bizerte County Medical Society which included the professional staffs of the various hospitals in the area. The Society probably heard a more

challenging series of papers and discussions on wartime medicine than is generally heard.

By March of 1944, with the Hospital census dropping daily and the Italian campaign moving farther and farther north, rumors that the Third General Hospital would soon move on started circulating again. In fact, the Commanding Officer left for Naples to discuss a suitable site in Italy for the Hospital. On April 27th, the Third General wiped off the dust of Africa and boarded two Liberty ships, the *Lincoln Steffens* and the British freighter, *Ocean Gallant,* and sailed for Italy. Proceeding in fifty-ship convoy, after a trip studded with submarine scares and depth-bomb explosions, the Unit landed in Naples on May 7th. After a short trip by the famous 6 x 6 trucks to Caserta and a little beyond, the Unit found itself in San Leucio, which was to be its home from May to September, 1944.

Life and work in San Leucio after Africa was relatively uneventful. The focus of the war had moved elsewhere. Normandy had been invaded. On the 22nd of July, the Hospital was notified that it would move again on "D plus 35." No new patients were admitted after August 23rd; on September 10th, the Third General ceased to function and prepared to move on.

Once again Colonel Donnelly flew ahead, this time to France, to ascertain the new site of the Hospital. On September 21st, an advance party commanded by Lt. Col. Karelitz sailed from Naples on a converted Polish passenger ship. The nurses left a day later for the staging area to wait for the hospital ship on which they would sail. On Tuesday, September 26th, the main body of the Unit sailed on the U.S.S. *Lyon,* a former Moore-McCormack banana transport, for Marseilles. From Marseilles, the Third General went to the Hôpital Psychiatrique de Montperrin at Aix-en-Provence. There it functioned until the end of the War.

By V-E Day many of the original members of the Unit had been detached for duty elsewhere. Colonel Lande replaced Colonel Donnelly as the Commanding Officer. During July and August, 1945, the Hospital functioned primarily as a station hospital; it treated some 300 patients and served the Arles staging area. Toward the end of the summer came a fresh crop of rumors—this time about going home. By August they reached a crescendo. On September 7th, the Third General embarked on the S.S. *General Stewart.*

A week later, early in the morning of September 15th, those who

were awake and on the rail saw the sky glowing with the lights of New York. Within forty-eight hours, the Third General was at Fort Dix, preparing for terminal leave and separation and by mid-September, 1945, the Third General, all the red tape wound up, took its place in Mount Sinai's military history.

Some time later, the Third's original Commander, Colonel Donnelly, who left the Unit to command a Hospital Center, wrote Dr. Turner, Mount Sinai's Director, a letter of thanks and commendation:

> I have recently had the opportunity of seeing many hospitals here in England and some on the continent. Considering those that I have seen and all other factors, I would consider the Third one of the best. I am not alone in this opinion, for the Third has been recommended for a merited award.
>
> This record was achieved by the professional skill of the doctors, dentists and nurses plus the training, hard work and attention to duty of the non-professional staff of officers and lastly in no small part to the enlisted men of the detachment. My part was minimal, for I was only one of about nine hundred who gave their best for our sick and wounded soldiers.
>
> I have been intimately associated with the personnel of the Third. I have lived, eaten, slept, played and at times "griped" with them for the past three years. Those years are now a part of my life which I shall always fondly remember. I hope that upon my return I may get to visit New York to live over again in words with your people from Mount Sinai the war as we fought it. I feel that I have some ties at your hospital which I hope may endure on into the days of peace ahead.
>
> Please tell the Board of Governors at Mount Sinai that the Third have done their job well.

The members of the returning Third General Hospital were actually only a fraction of all the Mount Sinai personnel who served with the Armed Forces. The others served in many capacities, in many kinds of units. At least eight gave their lives.

When the others returned to the United States they found a larger Mount Sinai in the making—and a soberer one too. The Hospital had lost two Presidents while the War was raging, two men of probity whose lives were examples of the Hospital's best ideals. One was Mr. Leo Arnstein, who died in August, 1944, and the other, his successor, Mr. Waldemar Kops, who died little less than a year afterwards.

Throughout his years of service as a Trustee under George Blumenthal, Waldemar Kops became a devoted student of hospital affairs. Following the death of Mr. Arnstein in 1944, Kops succeeded to the presidency of the Hospital and, although his term was all too short, it was marked by two significant developments that are already shaping the future history of the Hospital, namely, the initiation of full-time positions on the clinical services and the crystallization of the greater Mount Sinai building program.

During the War the Hospital had celebrated its 90th Anniversary. Over this long period of service 483,853 patients had been treated—more than 350,000 of them without charge. In the clinics more than ten million free treatments had been given during the Hospital's 90-year life.

Those who returned found the Hospital well prepared to face the problems of postwar expansion, the problems of retraining "the lost generation" of doctors created by the War, and the many challenges of a world only technically at peace.

20

The End of the First Hundred Years

WITH THE SECOND WORLD WAR OVER, MOUNT SINAI, LIKE THE REST OF the medical world, found that twenty years' development had been compressed into less than a decade. Under the pressure of war, new methods of treatment and research had been developed and perfected. A vast number of medical and scientific possibilities had been opened by the release of atomic energy. Perfection of new and more delicate machines and instruments placed ever greater demands on medical practitioners. It was no longer possible to think of medicine except as one part of the enormous body of scientific knowledge.

And it was not only the technical aspect of the profession which had been altered. The demands of war had also upset the time-honored routine of medical education. Medical-school courses had been accelerated. Internships had been cut short or left to be served after the War; residencies for specialty training had suffered the same fate. An enormous backlog of basic—even elementary—postgraduate training had to be made up as the thousands of young and only partly trained doctors left the services. Furthermore, physicians well established in practice before going into the service had, often, spent their military years in work remote from their civilian medical interests; some program under which they could bring their knowledge and skills up to date had to be arranged.

From the viewpoint of medical and hospital economics, also, many changes had taken place. The issue of voluntary group insurance,

whether for hospitalization or for medical care, was no longer hotly controversial. Public demand for it had intensified after the depression; when the war boom began, many large firms and some labor unions developed health or hospitalization insurance plans or both. Public demand for medical service had also grown apace. Many hospitals, including Mount Sinai, contemplated remodeling some of their wards into semi-private facilities.

The details of these various developments—both as to how they came about and how they made themselves felt—are innumerable. In a practical way, however, their effect on medicine was to bring to a definitive close the era of isolation in medicine—the period during which one man, or a small group of men, could work successfully without constant contact with colleagues in many fields. Foresighted physicians and hospital officials marked this early as a primary characteristic of the medicine of the future.

At Mount Sinai, plans for the postwar period were begun shortly after the United States entered the War. The President's Report for the years 1942 and 1943 indicates the breadth of the early planning: "New and powerful forces are making themselves felt throughout the world. Social and economic principles are in a state of flux. The War has already influenced the work of all voluntary hospitals. But the full impact of local and world forces has yet to be felt and evaluated, and adjustments must be made. A critical, though friendly, public is scrutinizing more closely the present organization of medical practice, and particularly the part which the hospital is playing in the over-all health program. New forms of medical and hospital service are emerging; old forms are changing. The Blue Cross plans, just completing their first decade, are broadening their coverage and increasing their benefits to subscribers." (In 1950, all the employees of the Hospital were covered by Associated Hospital Service insurance. Retirement plans were also arranged, under the Federal Social Security Act and in connection with the Federation's retirement plan.)

With the comment that vision, initiative, courage and bold planning would be needed to fit the Hospital to take its place in the postwar world, the Report continues: "The Hospital . . . is embarking on a carefully considered program which will include new buildings and some changes in staff organization. . . . It is formulating plans calling for (1) the erection of a maternity pavilion; (2) the erection of a building to house the needed research and routine

laboratories, professional offices and other auxiliary facilities; (3) the renovation of the older parts of the Hospital, some of them now in service for more than forty years; (4) the expansion of the program of medical education for undergraduate and postgraduate students; and (5) an increase in the facilities for advanced fruitful scientific research . . . $5,000,000 will be needed. . . ." (The cost of the program is actually expected to reach $12,500,000.)

These plans were not looked on solely as another expansion of Hospital facilities which would add to the physical plant but still channel its activities along strict traditional lines. Rather, they were looked upon as the physical embodiment of a new Hospital philosophy; the new buildings were to constitute an Institute where work could progress on every aspect of medicine as a science, an art and a subject for research. A start on fund-raising was made at once. (Contributions soon totaled nearly $1,000,000. In 1945, it was decided to join with Federation in raising development funds for all its member institutions.)

Mr. George B. Bernheim, long Chairman of the Laboratory Committee, was one of the foremost protagonists of laboratory research during this phase of the Hospital's development. While Chairman of the Committee on Clinical Research, he interpreted for the Board the need for additional physical requirements for laboratory research space adjacent to the wards and actively pushed for the financial support of these new facilities.

During his three-year term as President, in the tradition of Blumenthal and Kops, he furthered the physical expansion of the Hospital, particularly on the laboratory side.

In March, 1944, the full-time principle was, for the first time, applied to the clinical services. Dr. George Baehr, released from his duties as Chief Medical Officer of the U.S. Office of Civilian Defense, returned to the Hospital as full-time Chief of the First Medical Service and also as the first Director of Medical Research. (In 1951 he was succeeded by Dr. Alexander B. Gutman.) At the same time, Dr. Isidor Snapper was appointed the full-time Attending Physician to the Second Medical Service and Director of Graduate Medical Education.

With these two appointments, the Hospital made practicable the co-ordination of work in clinic and laboratory prefigured in the staff reorganization of 1939. It also provided a means by which younger

staff members could be trained to assume medical leadership as they accumulated clinical experience and intensive laboratory training. Supplemented by an intensified residency program—the number of House appointments at the Hospital more than doubled after the War—a new system of clinical laboratories, and a fellowship program designed to give promising younger men opportunity to study without undue financial handicaps, this innovation did away with a great many of the deficiencies of the previous system.

Administratively, the two reorganized Medical Services operated under the supervision of Committees created at the time Baehr and Snapper were appointed. The Joint Research Administrative Committee included four Trustees, the Chiefs of the Laboratories, several clinicians and Baehr, as its secretary. All proposals for clinical research were submitted to the Committee for evaluation as to their intrinsic worth and the ability of the investigators to carry them through; allocation of funds, physical facilities and supplies was also the Committee's task. In this way, the best experience of both the Central Laboratory staffs and of the clinical services could be turned to use.

Later, special facilities for research on specific clinical problems were set up as close to the wards concerned as was feasible. The old Isolation Roof Ward was remodeled as a research ward for metabolic diseases. Close by were the Nutrition Laboratory and a laboratory for endocrinological research, as well as a small biochemistry laboratory. New research facilities were also established on the roof of the Administration Building, close to the Pediatrics wards, and elsewhere.

A similar Committee was in charge of the educational activities. It included Dr. Snapper as its secretary, four Trustees, representatives of the clinical services engaged in internship and residency training and in the postgraduate education program. All educational activities were organized under Dr. Snapper and included the expanded residency and internship program.

Snapper's scientific career, which had often brought him to the United States as a lecturer at Mount Sinai and other institutions, had begun at the University of Amsterdam, where he took his medical degree in 1910. He worked in research laboratories in London, Groningen and Amsterdam until 1919. In that year, he was appointed Professor of Medicine and General Pathology at his home

university, a post he held until 1938; he then went to the Peiping Union Medical College as Professor of Medicine. He was captured by the Japanese and held hostage for a year; in 1942, in a prisoner exchange, he was released.

During the remainder of the War, he served as the Netherlands delegate to the United Nations Food Conference, as a special representative of the Netherlands Government in the Netherlands East Indies, as a Consultant to the Office of the Surgeon General in Washington, and as medical adviser to the Commissioners of the Netherlands Indies, Surinam and Curaçao.

Among the duties of the education division was administration of the internship and residency program. After the War, it was decided to continue the policy of one-year internships instituted as a wartime measure. The best qualified of the twenty-four interns could then advance to a year's Assistant Residency and later to Senior Residencies.

In order to give as much opportunity as possible to young doctors just out of the services, plans were made as early as 1942 to increase the number of residencies in medicine, surgery and the specialties. Before the War, there had been twenty-six Residents and Assistant Residents in the wards and the Private and Semi-private Pavilions. After the War, there were 114, divided among the wards and Private Pavilions, a special Veterans' Training Resident program, another special veterans' program of training in the basic sciences at Columbia University, and a full-time postgraduate student program. (These full-time students performed duties similar to those of the Residents and Assistant Residents, but did not live in the Hospital.) With the twenty-four interns in service that year, the total of physicians receiving full-time medical training came to 136.

By the next year, there were twenty-four full-time postgraduate students, fifty-three Residents and Assistant Residents in the wards, twenty-four in the Private Pavilions, seventeen in the veterans' training program, and seven in the basic-science program. In addition to the traditional training available to these men, an intensive special program of Clinical Pathological Conferences for the House Staff was set up and supplemented by dozens of lectures, demonstrations and conferences on subjects of special interest.

The formal postgraduate education program was partly reorganized in 1946. The object was to give the general practitioners of the

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IN REPLY REFER TO SPMDA

004 (Mount Sinai Hospital, New York, N.Y.)F

29 September 1944.

Dr. Joseph Turner, Med. Dir.,
Mount Sinai Hospital,
1 East 100th Street,
New York City, New York.

Dear Dr. Turner:

I have recently returned from my second overseas inspection trip this year to the North African and European Theaters of Operations. During these inspections I had the opportunity to review every phase of the medical service overseas from the work of the first aid man at the front all the way back to the loading of hospital ships and airplanes on which the most seriously wounded are returned to this country for definitive treatment.

The entire country has good reason to be proud of the fine work which our doctors, nurses, and corps men are performing. Time and again, the wounded called this to my attention, and I had many opportunities to judge of their splendid contributions myself.

You have particular reason to be proud of this work because your Hospital contributed so much to the high standards of medical care which the Army is now, in this hour of need, able to make available to its fighting men. Time and again, the superior work which the affiliated medical units are performing was there for me to see and what I was unable to observe personally was related to me repeatedly by the theater surgeons and their consulting staffs.

I realize what a serious deprivation it has been for your Hospital to meet its manifold responsibilities with so many of its ablest members in the 3rd General Hospital. I do want you to know, however, that your contribution has been of inestimable value to the Army Medical Service, particularly to our soldier patients.

Sincerely yours,

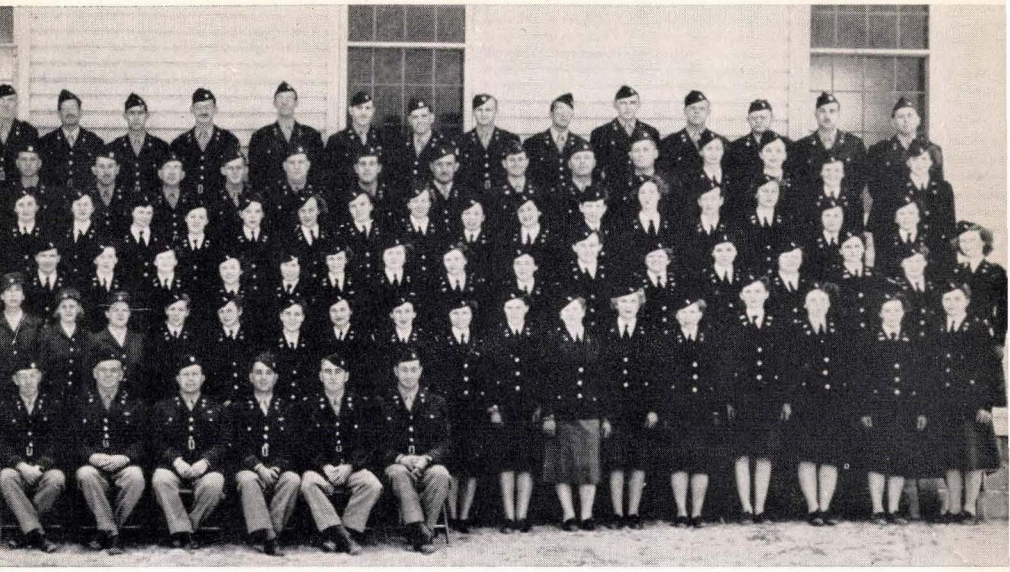
NORMAN T. KIRK,
Major General, U. S. Army,
The Surgeon General.

The Surgeon General Commends the Hospital





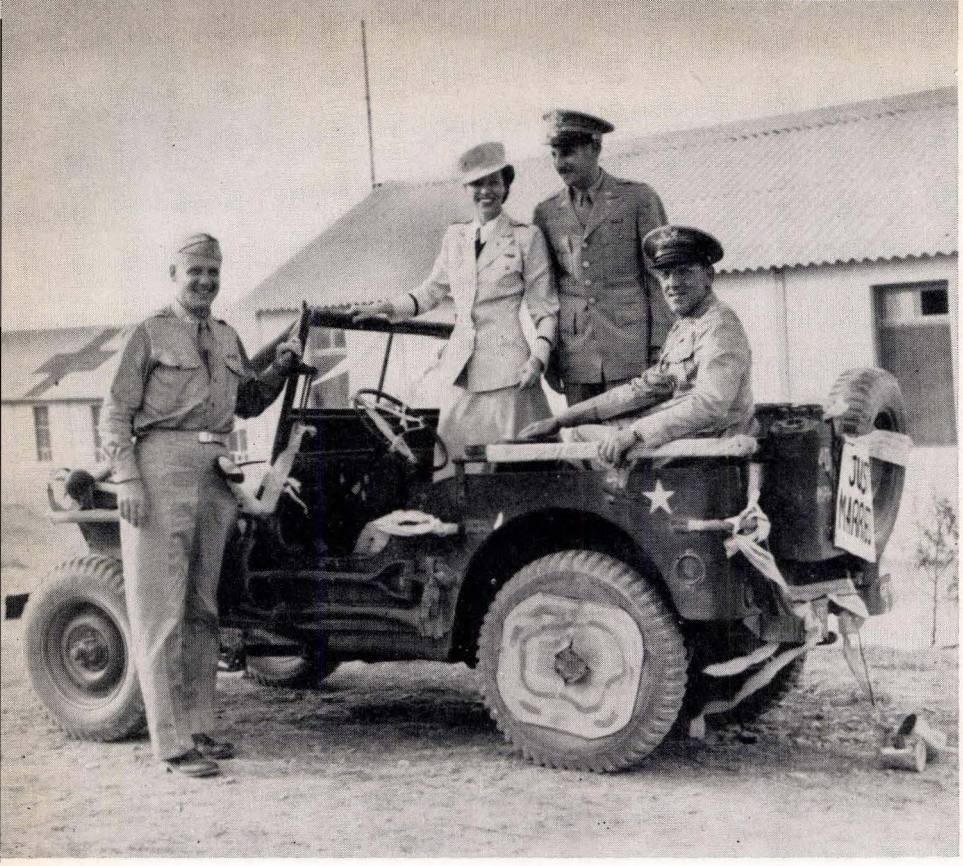
The Mount Sinai Third General Hospital in Italy, 1944



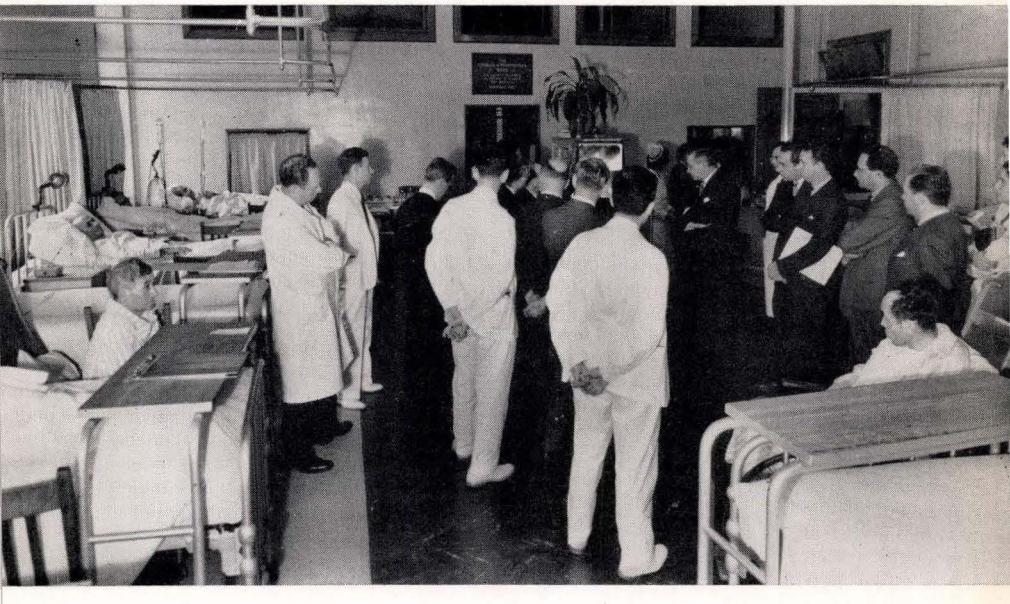
Third General Hospital—The Mount Sinai Affiliated Unit
—United States Army



The Mount Sinai Third General Hospital in North Africa,
1943



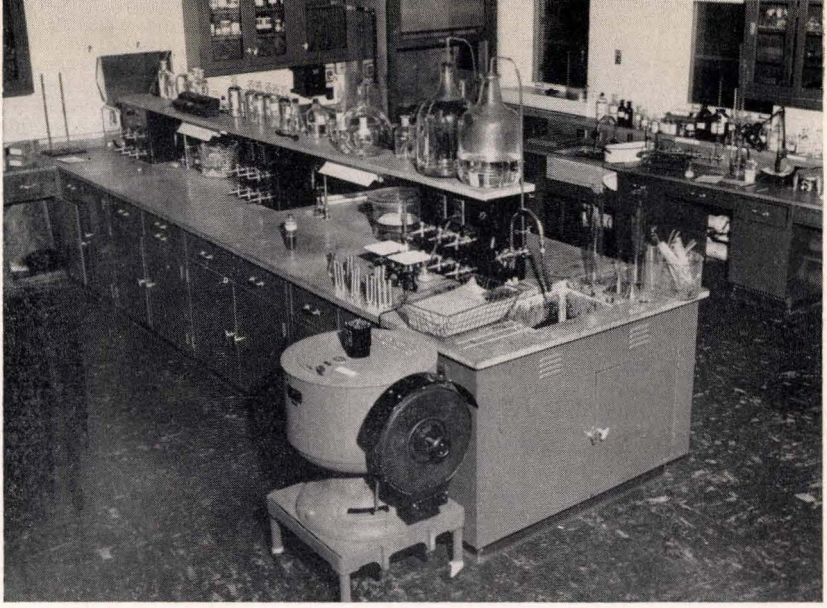
Military Wedding, North African Style (Captain Julius L. Weissberg and Lieutenant Muriel Berry of the Third General Hospital, Attended by Colonel George H. Donnelly and Lieutenant Colonel Percy Klingenstein)



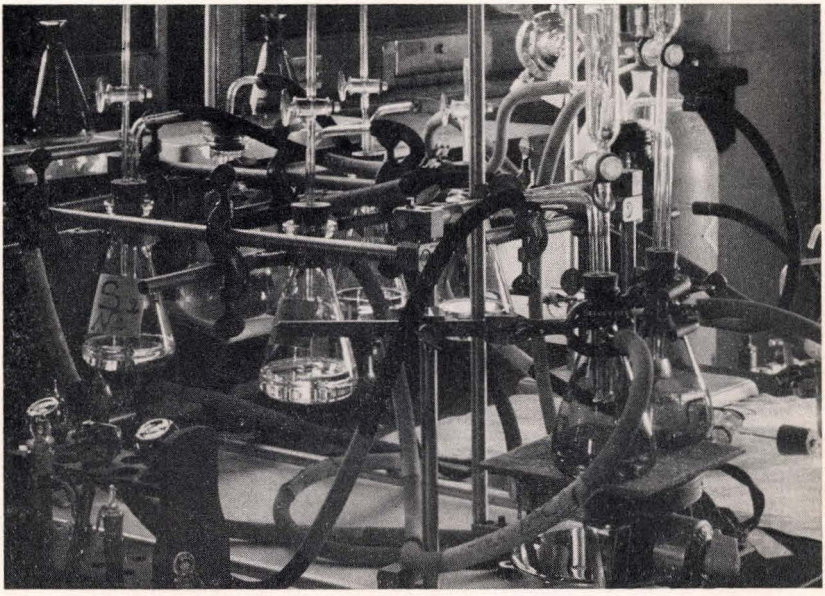
Ward Rounds



Psychiatric Patients



A Modern Laboratory



A Complicated Testing Device



Alfred L. Rose

community, in the form of a Symposium on Internal Medicine, an integrated survey of the leading problems of modern medicine. The Symposium was designed to include information about advances in the fundamental concepts of disease as well as about new methods of diagnosis and therapy. The courses chosen for integration into the Symposium included those which had proved most popular and most useful for the general practitioners when they were presented as single courses: cardiovascular diseases, gastrointestinal diseases, diseases of the liver, diseases of the kidneys, hematology, allergy, diseases of the chest, diseases of metabolism, endocrinological diseases and dermatology.

These courses, and the usual specialists' courses which were also presented, were very well attended, especially by physicians who could take advantage of the Government's Veterans' Education program. In 1945 and 1946, a total of 523 physicians attended 692 courses—a record.

In order to strengthen the Hospital's own Staff, especially in clinical research, the fellowship program begun so modestly with a single fellowship in Pathology in 1907 was expanded and reorganized after the War. The aim was not simply to allow young physicians of promise to work intensively in Mount Sinai's own laboratories, but to train them in the newly developing branches of medicine in other institutions and laboratories as well.

One means by which this expanded fellowship program was made possible was the bequest of $950,000 made to the Hospital in 1943 by Dr. Sara Welt (Kakels). Dr. Welt had been one of the Hospital's first women Adjuncts (in Pediatrics). She remained close to the Hospital throughout her life, and continued to attend the Clinical Pathological Conferences after her retirement in 1926 almost until the time of her death in 1943.

Dr. Welt had long been interested in medical education. In her will, she set up the Sara Welt Fellowships in Research Medicine, established an income to support them and provided further a loan fund for young physicians who needed financial assistance, as well as funds to maintain a healthy-baby clinic.

At the end of their training period, physicians who had held fellowships from the Hospital or from other sources could join coordinated teams of clinical investigators already at work in the Hospital. These teams were set up during the War and immediately

thereafter to study problems in such fields as endocrinology, cardiovascular and renal physiology, gastrointestinal physiology, nutrition chemistry, physiological hematology, immunochemistry and clinical research with radioactive isotopes.

The teams were more or less informal in that they did not work on set problems under rigid direction. Rather, they included men whose research efforts would have been directed along the lines of the group's interest under any circumstances. Organization of the group simply made it possible to co-ordinate its approach and conclusions.

Typical of the groups formed after the War was the Cardiovascular Research Group. This was organized first under the general supervision of Dr. Marcy Sussman, the Hospital's Radiologist. Sussman had long been interested in the physiology of the heart, and was one of the first to develop the technique of angiocardiography. Later, Dr. Saul Jarcho, Assistant Director of Clinical Research (and the first full-time Adjunct Physician), headed the group. The group included the Hospital's cardiographers and its other experts in various aspects of the physiology and pathology of the heart.

Out of their work came two new developments. The first, on the scientific side, was a detailed study of the lesions in congenital heart disease, for which a number of new techniques and instruments were devised. The second grew out of the realization of the practical advantages of the pooled knowledge of the group as a unit, as well as their special equipment and their skill in using it. Other members of the Medical Staff, confronted by the extremely difficult technical problems involved in diagnosis and treatment of patients with cardiovascular disease, either as the main problem or as a complication in other illnesses, began referring such patients to the group. Physicians outside the Hospital also sent patients to the cardiovascular team. A fee schedule was set up, and fees paid to the group were used to finance further research.

A similar group was formed around the Physics Laboratory, when radioactive isotopes from the Oak Ridge atomic installations became available after the War. Biophysics—more properly, the medical aspects of biophysics—had been slowly growing in importance during the pre-war years. A Physicist to the Hospital was first appointed in 1927, and a Physics Laboratory had been set up within the Department of Chemistry in 1942.

The Physicist worked closely with the X-ray and Radiotherapy Departments, especially on questions of dosage and exposure, calibration and protection of equipment, and devices to protect workers in the Departments from overexposure. Other Departments also called on the Physics Laboratory for the construction of special equipment, like instruments to measure blood volume and the microplethysmograph, which was developed at the Hospital and used to study various diseases of the heart and circulation.

After Dr. Sergei Feitelberg's appointment, in 1942, the Hospital was also able to obtain small amounts of the radioactive isotopes then being produced in the cyclotrons at a few universities.

By 1947, the Physics Laboratory was an independent department. Demands were such that it was staffed by six full-time and two part-time workers. One of their primary duties was development or improvement of methods of treatment and research with radioactive isotopes. An Isotope Committee to settle on rules and procedures for the handling of these materials was formed; physicians and other staff members were trained in isotope techniques and in the safeguards and restrictions necessary for their safe handling.

One of the first problems to which isotopes were applied clinically was that of hyperthyroidism, a condition in which the Hospital had a long-standing interest. For many years, the only attempts at treating hyperthyroidism had been surgical; but surgery involved great risks and high mortality. In the early 1920's, at Mount Sinai, Drs. Leo Kessel and Harold Hyman began experimenting with various drugs, and meanwhile set up a regime designed to keep the patients' characteristic agitation at the lowest possible level. Specially trained nurses, social workers and dietitians dealt with them; they slept, often, in the "Kessel pack"—sheets wrung out of cold water and covered with blankets.

Later, from 1932 to 1937, a thyroid group, including Drs. Solomon Silver, Richard Lewisohn and B. S. Oppenheimer, undertook a combination of surgery and psychiatry which brought the operative mortality down to one-half of one percent on the 360 patients they treated. Later attempts to control hyperthyroidism with newly developed drugs proved both dangerous and expensive. What was needed was a treatment method that would safely slow down the overactive thyroid without harming the patient. The ready availa-

bility of radioactive iodine after the War made it possible to treat hyperthyroidism effectively and relatively inexpensively.

The radioisotopes were also used, in a more experimental way, to treat various forms of cancer and other diseases and for the solution of special diagnostic problems. This work was in direct charge of the Radioisotope Group, formed in 1948, and including members of the Physics Laboratory staff and representatives of the interested clinical departments. In the first year of its operation, the group treated twelve patients with Graves' disease and twenty-four patients with cancer of the thyroid with radioiodine. Radiophosphorus was also used clinically, especially in the treatment of polycythemia vera and leukemia.

Staff members and physicians outside the Hospital shortly began to refer private and semi-private patients to the Radioisotope Group for treatment, in order to avail themselves of the Hospital's superior equipment and experience. The Isotope Group set up a fee schedule; income was divided on a partnership basis.

The Isotope Group was also close to another significiant development within the Hospital: the establishment of special clinics in the Out-Patient Department to serve the double purpose of bringing the out-patient services up to the highest standards of the in-patient services, and to provide the most efficient kind of medical care to O.P.D. patients. One such clinic was the Radiophysics Clinic, established in 1948.

The same year saw the establishment of a Special Medical Clinic which was, in effect, a duplication of the valuable Consultation Service for private patients. Fees were set at exactly half those of the Consultation Service, with the maximum possible charge fixed at $30. Private physicians could refer patients of moderate means to this diagnostic center. The Clinic proved itself valuable from the beginning not only for diagnostic purposes, but as a center in which applicants for ward admission could be "worked up" before entering the Hospital. One result of the Clinic's operation was a noticeable shortening of the length of time its patients spent in the Hospital after admission.

Another unusual clinic established in 1948 was the Special Therapy Clinic for patients requiring intense study and follow-up. This Clinic (whose activities were integrated with similar work in the Hospital) was staffed by specialized groups of physicians who could concen-

trate their treatment, research, and study on patients who needed their special services. During its first year of operation, the Clinic concentrated on heart failure, hyperthyroidism and renal, endocrine and tropical diseases. By 1950, patients who needed protracted anticoagulant therapy, or long courses of treatment with ACTH or cortisone, were admitted to the Clinic.

Mount Sinai was one of the first hospitals to use these two powerful hormones in treating patients. Dr. Louis Soffer, Associate Physician on the Medical Service, had carried out extensive investigations in endocrine interrelationships, with special emphasis on the chemical aspects of the work, for almost a decade. He was one of the first to study the role of magnesium in the blood serum and its relation to thyroid tumors. He also helped make clear the role of the adrenal cortex in salt metabolism and wrote extensively on diseases of the adrenals and of the endocrine glands. Soffer developed a special interest in the complex relation between the thyroid, the pituitary and the adrenals. He and his co-workers used the adrenal hormones first for treatment of tumors of the thymus and then in obscure and difficult diseases like lupus erythematosus.

The Central Laboratories, after the War, continued their investigations of medical problems in the basic sciences and in fundamental clinical medicine. They also undertook a variety of investigations which are still too new to assess adequately.

Meanwhile, the Hospital's clinical growth continued apace.

For many years, like other general hospitals, Mount Sinai had been attempting to find some solution to the problem of mental illness in its patients. Psychiatry, long subordinate to neurology, could do little more than study and classify mental disease. About the time of the First World War, however, it began to develop into an autonomous branch of medicine with a definite body of knowledge, definite techniques and definite responsibility for specific patients.

Mount Sinai acknowledged this growth in a number of ways: mental-health clinics, psychiatric social workers, liaison psychiatrists in the Medical and Surgical Services and the Out-Patient Department, all represented a part of the Hospital's effort to include psychiatric resources in all of its services. Many of the Hospital's Staff members contributed to the growth of the specialty; one of its most famous internists, Dr. Eli Moschcowitz, now a Consulting Physician to the Hospital, published an influential series of papers on psycho-

somatic medicine during the forties. Dr. Moschcowitz was one of the pioneers in recognizing that many disease processes are a reflection of fundamental disturbances in the psycho-biologic unit as a whole.

Yet the need for a more efficient method of using psychiatric science in the Hospital continued to be pressing and became acute when the Second World War dramatized the seriousness of the problem of mental health in the United States.

Accordingly, a Committee of the Board of Trustees was appointed by Mr. Kops, in 1944, to devise a program of action for Mount Sinai. In their report, they emphasized statistics; but the statistics themselves supplied sufficient drama. Among the pertinent facts they cited was the conservative estimate that from 12 percent to 20 percent of the patients admitted to general hospitals suffer primarily from neuropsychiatric difficulties and that the general practitioner encounters similar difficulties in some 75 percent of his patients. Yet only 112 of the 4,309 general hospitals in the country were equipped to care for these patients.

At Mount Sinai itself, in spite of its unusually broad psychiatric program and the careful screening of patients admitted, 259 had been discharged with a primarily psychiatric diagnosis in 1943. Many of these patients could have been treated and cured; but because facilities were lacking, they either got worse or had to accept the stigma of an "insane asylum."

Even discharge to another hospital where their mental disorders could be treated was unsatisfactory because it meant discontinuity in treatment of their physical illnesses. Furthermore, even though New York State was spending something like a third of its budget to care for the mentally ill, State hospitals were overcrowded by as much as one-fourth their capacity. To add to the problem, it was estimated that some 48,000 New York City veterans would be discharged for neuropsychiatric reasons.

From the Hospital's viewpoint, the Committee recognized that the elements of psychiatric understanding were not well taught in many medical schools, nor did hospitals make up this vital deficiency in their interns' training. Nurses and social workers had similar gaps in their training. Practicing physicians also lacked specific training to meet the psychiatric and psychosomatic problems and the emotional complications of physical disease they would inevitably meet in their practice.

The Committee recommended establishment of a Psychiatric Service ranking with the other major services and headed by a full-time, salaried Attending Psychiatrist. Dr. M. Ralph Kaufman, who had spent some years at Beth Israel Hospital in Boston and later, as a Colonel, served as Psychiatric Consultant to the armed services in the Pacific, was appointed in 1945.

A number of points had to be kept in mind while the new department was being organized. The first was that, in a sense, it was to be a service department. Its patients were to be drawn primarily from patients already on the Hospital rolls, either in the wards or in the Out-Patient Department. To make this possible, the teams of liaison psychiatrists assigned to the Medical, Surgical and Out-Patient Departments of the Hospital were strengthened; there were eighty-five staff psychiatrists by 1951.

Members of the liaison teams saw, in formal or informal consultation, patients whose physical difficulties were accompanied by mental or emotional complications. The formal consultations—consultations made because the physician or surgeon in charge of the patient considered psychiatric advice essential—numbered about 800 in 1951. In such cases, the psychiatrist evaluates whatever psychiatric factors may be present, makes a formal diagnosis and recommends treatment, which is carried out at the same time as the physical treatment.

For patients needing more concentrated attention, a special psychosomatic ward of twenty-two beds was opened in 1947. Patients in the ward continue to be treated by physicians or surgeons from their parent services, as well as by members of the psychiatric staff.

Teams of liaison psychiatrists also function throughout the Out-Patient Department, and the Psychiatry Service itself staffs five clinics, each meeting twice weekly. One of these, for follow-up of patients from the psychosomatic ward, is especially organized for the benefit of the residents in psychiatry; it also provides continuity of treatment for the patients. In addition, a Department of Clinical Psychology with a staff of fifteen functions within the Psychiatry Service; its testing, evaluating and teaching services are available wherever the Psychiatry Service itself functions.

A staff of twenty-five conducts a child psychiatry program in cooperation with the Pediatrics Department. The liaison psychiatrists perform the same functions as do those working in the adult wards

and clinics. Independent clinics—two parent-child guidance clinics, a clinic for adolescents, a ward liaison psychosomatic clinic and a similar clinic for the Out-Patient Department—are conducted by the child psychiatrists.

The Pediatric Service was the fourth major clinical division to acquire a full-time chief. He was Dr. Horace L. Hodes, who had distinguished himself at Johns Hopkins by his work on a virus that causes infantile diarrhea. The decision to put pediatrics on a full-time basis was made, in 1948, because of the increasing success of the full-time system on the other services. A gift of $100,000 from the Dorothy H. and Lewis Rosenstiel Foundation made it possible to construct a laboratory and offices for the Pediatrics chief in the Children's Pavilion. Two years later, after further study by the Trustees and the Federation, provision was made for the eventual appointment of full-time chiefs of other major Hospital services. The most recent of these is Dr. Alan F. Guttmacher as Obstetrician and Gynecologist to the Hospital (July, 1952). Search for a full-time Surgeon is currently going on.

When the special investigating Committee recommended, in 1944, establishment of a separate Psychiatry Service, it also recommended that, eventually, a psychiatric unit should be added to the Hospital's buildings. Not until 1948, however, was it possible to draw plans for a psychiatric unit. Meanwhile, the Hospital, plagued by rising costs, by shortages and by all the harrowing difficulties of building in the postwar years as well as by constantly increasing demands for service, was proceeding with the expansion program envisaged in 1942.

One of the first great needs was space. In great contrast to the openness of the site when it was first chosen at the turn of the century, every square inch of usable space around the Hospital was occupied. Hospital buildings occupied virtually all of the three square blocks between 98th and 101st Streets and between Fifth and Madison Avenues. Further expansion involved tearing down an apartment house—a step the Hospital was reluctant to take during a time when New York was suffering the greatest housing shortage in its history. Correct orientation of the planned new buildings and maximum usage of the space available also involved prolonged negotiations with the city to acquire the bed of 99th Street; the city transferred the property in 1945.

More time was spent in drawing the plans and acquiring the necessary funds, both independently and through the Federation. Dr. Joseph Turner, who had been Director of the Hospital since 1928, was appointed Consultant to the Board of Trustees. Dr. Martin R. Steinberg, who had served as Assistant and Associate Director, succeeded Dr. Turner as Director of the Hospital. Dr. Steinberg, dynamic, practical and imaginative, has brought to the contemporary Hospital the same kind of resourcefulness and creative energy that characterized his great predecessors.

In his present position Steinberg is fortunately juxtaposed with President Alfred L. Rose, who has done so much in bringing the Hospital still closer to the community, in strengthening relationships with the city and with the Federation. Together they walk in the footsteps of that other conspicuous combination, Goldwater and Blumenthal. Together they saw the expansion program emerge from the idea to the actuality.

Excavation for one of the first of the new buildings—the Henry W. Berg Memorial Building—was begun in the summer of 1948. Funds for the building had been given by Mount Sinai's famous gastrointestinal surgeon, Dr. A. A. Berg. Dr. Berg, who had spent his professional lifetime at Mount Sinai, made his gift in honor of his brother, who had also been a staff member for many years.

The brothers had been close friends as well as colleagues; they maintained joint offices and were among the most notable of modern collectors of rare books and manuscripts. Shortly after Dr. Henry Berg's death, his brother presented their collection, which included among its other treasures fifteen unpublished Coleridge notebooks, to the New York Public Library in Dr. Henry's memory. In later years, Dr. Berg supplemented his original gift with two Caxton volumes—the first printed history of England—and other rare Coleridge manuscripts. The Berg Collection was notable for the rarities of English literature which it contained; to complete it, Dr. Berg bought the $2,000,000 Howe collection which included invaluable Americana and presented it to the Library. His final benefaction to the Library was a joint gift with Owen D. Young of the enormously varied Young collection of 15,000 volumes. The three collections are housed in the Berg Memorial rooms.

Dr. Berg was born in New York and served his internship at Mount Sinai after taking his medical degree from the College of

Physicians and Surgeons in 1894. He was appointed Attending Surgeon to the Hospital in 1914. In 1934, he retired and was named Consulting Surgeon. He and Dr. Richard Lewisohn were the first surgeons in the United States to develop the modern surgical treatment for ulcer; it was around Berg's gastrointestinal ward that Mount Sinai's brilliant school of gastroenterologists developed.

As a surgeon, Berg was both systematic and daring; these qualities were based, according to his fellow surgeons, on his sound and voluminous understanding of anatomy and physiology. He planned each step of an operation in full detail before he began it, even anticipating the most likely emergencies. He then proceeded according to his orderly plan, varying it only under most unusual circumstances. Other surgeons say that his operations were unusually rapid because of this meticulous planning, and not because of unusual speed of movement. Dr. Berg was President of the International College of Surgeons from 1943 to 1947, and was an Honorary Fellow of a number of European scientific organizations. He died on July 1, 1950.

The Berg Memorial Laboratory was planned to include facilities for research in bacteriology, pathology, physiology, chemistry, gastroenterology, cardiology and other subjects. But still more space was needed. A General Laboratory Building had been included in the original plans. In 1950, it became possible to plan this building on a really generous scale because of a gift from the Atran Foundation through the Federation of Jewish Philanthropies. The first installment of the gift (which will eventually reach $1,000,000) was $100,000. The building is named in honor of the Atran Foundation.

Another unit in the new construction—the Maternity Pavilion, which will be the heart of the Institute of Biogenetics—represents the fulfillment of one of the Hospital's oldest plans. No maternity service was provided at the time the Hospital moved to 100th Street because, at that time, obstetrics was not a hospital problem. Most deliveries were made at home, for one thing; more important, the great scientific advances in obstetrics, gynecology and pediatrics on which an effective maternity service would depend were still to come.

The Hospital's decision to add a maternity service to its facilities was made at a time when the birthrate was rising sharply. There were not enough maternity beds or clinics in New York, and especially not in the Mount Sinai district. One hundred fifty additional

beds—the planned capacity of the Pavilion—would in themselves have been a contribution of major importance on the Hospital's part. But the idea of an Institute of Biogenetics was far more appealing. In an address to the Board of Trustees in 1944, Dr. I. C. Rubin expressed it well.

A maternity service, he said, should have a four-fold function: maternity care throughout pregnancy, childbirth and the lying-in period; education and training of interns, residents, nurses; research into the clinical, biochemical, and physiological aspects of pregnancy and childbirth; and social service to mother and families. A service so comprehensive, he said, would be unique, especially from the point of view of research, because there are so many areas of ignorance surrounding the period of gestation, the mechanics of birth, the metabolic relationship between mother and unborn child and the diseases and hazards of pregnancy.

Rubin suggested six research divisions: physiological and biochemical, endocrinological, embryological and histological, serological and hematological, radiological, and pathological, anatomical and experimental. He also suggested that, through the clinics, the Social Service Department and the psychiatrists, the Hospital could undertake treatment and educational programs in a number of fields. Among them, he suggested, should be sex education, especially for adolescent girls, premarital examination and counseling, instruction in child care, psychiatry for the obstetric patient and mental hygiene for children, and problems of adoption from both parents' and children's viewpoints.

A major contribution toward the building of this elaborate Institute was made by the Klingenstein family, which for many years had been interested in the Hospital. The total was nearly $2,000,000. The Board of Trustees decided, in 1950, to dedicate the maternity building to the memory of Mr. and Mrs. Charles Klingenstein.

Still another project to which the Hospital has committed itself reveals, perhaps better than all the others, the long road the Hospital has traveled since the 100th Street buildings impressed New York as a "model of sanitary science." This is the Carver Houses project—an experiment in both medicine and sociology.

The Carver Houses are planned by the State of New York to cover the area between Madison and Park Avenues, from 99th Street to 106th Street—an area which is now an overcrowded, noisy, dirty,

polyglot slum. Some 1,500 families will live on the project, which will include, besides apartment houses, community facilities, schools and shops. It is expected that the tenants will include the same mixture of Puerto Ricans, Negroes, Italians and members of other ethnic groups and nationalities who now live in the area.

Mount Sinai plans to install a community medical program in the project, covering virtually all aspects of medical care. The services will be provided without charge or at a minimal charge, and will include minor ambulant care, prenatal care, a well-baby clinic, dental prophylaxis for children under eight, nutrition guidance, environmental sanitation, pre-school preventive services, group-health education and pre-marital, pre-natal and pre-school psychological guidance, as well as guidance in family problems and group conflicts. Health inventories of all the families will be kept; detailed records will not only describe the profile of the project as it is carried out, but give perspective on its achievements and failures.

The Hospital will establish treatment rooms and doctors' offices in the project. Minor care will be given there; major problems will be referred to the Hospital's own clinics. The doctors will work in co-operation with the nurses and social workers on the project; but beyond this, each physician will be a real family doctor—he will make house calls, respond to emergency calls and, in general, carry out the intimate physician-patient relationship that is the heart of good medicine.

The major emphasis of the project will be on preventive psychiatry, an all-inclusive term which simply means that the Hospital intends to try to raise the cultural and social level of its neighbors, as well as to take care of their physical health. It is hoped to push down the actual and relative incidence of mental disease and emotional and personality maladjustments, and to achieve a relative and absolute increase in social, economic, physical and emotional adaptation.

The Carver Houses project is sweepingly ambitious, planned as it is in an era of confusion and fear. The future is dim and even ominous; the future of the voluntary hospital is certain only in that it will bring many changes, changes even more drastic than those of the last fifty years.

Yet the very fact that the Carver project is being planned is itself a note of hope. If it succeeds, the Hospital will have inaugurated a new era in medical care; it will even have created a whole new kind of medicine. And even if the project fails, its failure cannot be complete; its mere existence will have taught some lessons medicine has long been eager to learn.

In another way, also, the Carver project is appropriate now. In a sense, it brings the Hospital full circle. From its humble beginnings, it grew to an enormous, endlessly complicated institution. Now it is going back to the people whose care is its reason for existence.

Appendices

Chronology

1852 The MOUNT SINAI HOSPITAL is chartered and founded as THE JEWS' HOSPITAL in New York. Sampson Simson is the first President. His co-founders are: John M. Davies, John I. Hart, Henry Hendricks, Rev. Samuel M. Isaacs, Benjamin Nathan, Isaac Phillips, John D. Phillips, Theodore J. Seixas.

1855 Doors of the Hospital are opened, on May 17th, at 138 West 28th Street, between Seventh and Eighth Avenues. It is a four-story building with forty-five beds. The Staff includes Valentine Mott, Willard Parker and other eminent physicians of the day. In accordance with the practice of the period there is no separation of Medical and Surgical Service nor are there any specialized services.

1856 In its first full year, the Hospital admits 216 patients. Its operating expenses total $5,493.76.

1860 Dr. Abraham Jacobi, one of the foremost specialists in children's diseases, is appointed Attending Physician.

1862 The Hospital opens its wards to wounded Federal Soldiers of the Civil War, installing additional beds and increasing its personnel for the purpose. In the same year, the Hospital treats many of the wounded in the New York Draft Riots.

1866 To make it clear that the Hospital serves the community without distinction of race or religion, its name is changed to the MOUNT SINAI HOSPITAL.

1871 The MOUNT SINAI and Bellevue Hospitals treat those wounded in the Boyne Day riot between Irish and Ulster partisans.

1871 The Hospital has outgrown its original building. In this year it cares for 658 in-patients and 981 out-patients.

1872 The Hospital is moved into its new building, a three-and-a-half-story structure of 120 beds on Lexington Avenue, between Sixty-sixth and Sixty-seventh Streets.

1872 The Medical Board and House Staff are organized, at a meeting at the home of Dr. Willard Parker, who becomes first Chairman of the Board.

1872 The Hospital takes a bold step forward by appointing two women, Dr. Ann A. Angell to the House Staff and Dr. Eliza Phelps as Apothecary.

1873 Although the Hospital has treated out-patients from its inception, THE OUTDOOR DISPENSARY (OUT-PATIENT DEPARTMENT) is formally established this year with four divisions: MEDICAL, SURGICAL, GYNECOLOGIC and CHILDREN'S.

1877 The MEDICAL and SURGICAL SERVICES are separated for the first time. The House Staff is reorganized with junior physicians serving alternately on these services.

1877 An in-patient GYNECOLOGIC DEPARTMENT is established, headed by Dr. Emil Noeggerath, pioneer in the study of gonorrhea.

1878 The first separate service in New York City for in-patient care of children is established at the Hospital, through a legacy from Michael Reese of California. Dr. Abraham Jacobi, first Professor of Pediatrics in an American medical school, Columbia's College of Physicians and Surgeons, heads this department.

1879 EYE and EAR SERVICES are organized, headed by Dr. Emil Gruening.

1880 Dr. Arpad G. Gerster, considered the first Listerian surgeon in America, is appointed Attending Surgeon.

1881 Stimulated by the Mount Sinai Ladies' Auxiliary, the SCHOOL OF NURSING is established with eight students in the first class. Mrs. Florian Florance is first President and Miss Kate Rich is first Superintendent.

1882 MOUNT SINAI is already outgrowing its second home; 1,692 in-patients are treated in the year, twice as many as ten years earlier.

1883 The Hospital building is enlarged to a capacity of 190 beds and an isolation building is added. Space for private patients is increased. The Hospital begins to emerge as a modern medical center instead of a custodial institution for the care of the poor only.

1883 Dr. Edward Gamaliel Janeway, one of the great diagnosticians of his time, is appointed to the Staff.

1886 MOUNT SINAI grants its diploma to Dr. Josephine Walter, first woman in America to serve a formal internship.

1886 To relieve overcrowding of the Hospital and to care for patients who can be treated at home, a DISTRICT MEDICAL SERVICE is inaugurated, first of its kind in the city.

1887 Dr. William H. Wilmer is graduated from the House Staff. He later headed the Wilmer Ophthalmic Institute at Johns Hopkins University.

1888 Dr. Arpad G. Gerster publishes the first American work on Listerian surgery, *Rules of Aseptic and Antiseptic Surgery*, illustrated with photographs taken in the operating rooms of the Mount Sinai and Lenox Hill Hospitals.

1888 Dr. Carl Koller, discoverer of local anesthesia, who introduced the use of cocaine for this purpose in 1884, is appointed to the EYE and EAR DEPARTMENT.

1888 Dr. Emil Gruening performs one of the pioneer mastoidectomies in this country.

1890 THE DISPENSARY (OUT-PATIENT DEPARTMENT) is greatly expanded and housed in a new building. NEUROLOGICAL, SKIN AND VENEREAL DISEASE CLINICS are established.

1892 SCHOOL OF NURSING won bronze medal at Columbian Exhibition in Chicago for an exhibit "showing careful training and ability on the part of the nurses to discharge all duties which may fall to them."

1893 Recognizing the growing importance of specialties, the Hospital appoints a number of distinguished clinicians to the staff—including Dr. Bernard Sachs as Consulting Neurologist; Dr. Sigismund Lustgarten as Consulting Dermatologist; Dr. Henry Koplik, founder of the first sterilized milk station in the United States, later discoverer of Koplik's spots, important diagnostic sign of measles; Dr. Howard Lilienthal, leader in development of chest surgery; Dr. Nathan E. Brill, discoverer of Brill's Disease, a form of typhus; Dr. Morris E. Manges, subsequently Professor of Clinical Medicine at Polyclinic and Bellevue Medical Schools; Dr. Joseph Brettauer, a master technician in gynecologic surgery; Dr. Charles H. May, later to invent the May prismatic ophthalmoscope.

1893 THE LABORATORY is established and housed in a small room, with Dr. Henry H. Heineman as Pathologist and Dr. Frederick S. Mandlebaum as Assistant Pathologist.

1895 THE GENITO-URINARY SERVICE is established, with Dr. William F. Fluhrer as its first chief.

1896 Dr. Bernard Sachs publishes his work on *Amaurotic Family Idiocy*, later known as Tay-Sachs Disease.

1897 Pioneer in scientific medicine, Dr. Emanuel Libman is appointed Assistant Pathologist.

1897 Adolph Bernheimer Memorial Ward endowed by Rosie Bernheimer, his daughter. Twelve beds. First endowed ward in Hospital.

1900 The Hospital purchases its first X-ray machine. Dr. Eugene Eising, House Surgeon, takes the first plate. A year later, Dr. Walter M. Bricker is appointed Radiographer.

1900 Gold medal to SCHOOL OF NURSING at Universal Exposition, Paris.

1901 The cornerstone of the present group of Hospital buildings is laid, May 22, by Isaac Wallach, President.

1901 Emanuel Lehman and sister give $38,000 for "helping the poor and needy" find jobs, etc., after leaving hospital.

1904 The new Hospital buildings are dedicated, on March 15th. Dr. Sigismund S. Goldwater is appointed Superintendent. The ten buildings have a capacity of 456 beds.

1904 Operating amphitheatre in memory of Babette and Isaac Blumenthal endowed by their sons, Alfred, Gustav and Hugo, and nephews Benjamin and George.

1904 Silver Award to SCHOOL OF NURSING at Universal Exposition, St. Louis.

1905 A Department of Dietetics is established.

1905 Seven members of Board of Directors each establish $10,000 permanent endowment fund for maintenance of Hospital, as follows: George Blumenthal (elected trustee in 1892, subsequently Secretary, Vice-President, and President) created the George and Florence M. Blumenthal Fund; Kate Speyer the Ellin P. and James Speyer Endowment; Charles A. Wimpfheimer, the Annie C. and Charles A. Wimpfheimer Fund; Murry Guggenheim, the Murry and Leonie Guggenheim Fund; Henry Morgenthau, the Henry and Josephine Morgenthau Fund; Meyer H. Lehman, the Henry and Rosa Lehman Fund; and Edward Oppenheimer, in his own name.

1905 Simon Rothschild willed $50,000 to the hospital to establish and maintain a ten-bed ward named for him.

1905 SCHOOL OF NURSING scholarships of $100 (twelve in all), set up out of $20,000 fund given by Murry Guggenheim.

1906 Dr. Emanuel Libman publishes *Experiences with Blood Cultures in the Study of Bacterial Infections*, a pioneer study of bacteria in the blood stream.

1906 THE SOCIAL WELFARE DEPARTMENT is formed by Miss Jennie Greenthal, one of the first hospital services of its kind in the country.

1905 SOCIAL WELFARE DEPARTMENT established, on basis of gift from Paul M. Warburg.

1907 THE GEORGE BLUMENTHAL, JR., FELLOWSHIP FUND is established, to aid and encourage research workers; this is the first assignment of funds for work in the Laboratory.

1908 Dr. Reuben Ottenberg, who in 1907 had performed the first blood transfusion with compatibility tests, points out that blood groups are hereditary.

1908 Dr. Leo Buerger describes Thromboangiitis Obliterans (Buerger's Disease), a disease of the blood vessels of the extremities, usually resulting in gangrene. This study initiated work which eventually obviated, in most cases, the need for amputation.

1908 Dr. Emanuel Libman publishes *The Etiology of Subacute Infective Endocarditis*, a fundamental work in establishing the cause of infections of the heart valves.

1908 GEORGE M. BLUMENTHAL, JR., FELLOWSHIP FUND established by Mrs. Florence M. Blumenthal for laboratory workers.

1908 Dispensary had 199,737 consultations—more than any other in New York.

1908 Tuberculosis Clinic established to care for patients in Mount Sinai's district. Member of the Association of Tuberculosis Clinics. Financed by George Blumenthal, Philip J. Goodhart, Edward Oppenheimer, Charles A. Wimpfheimer, all Board members.

1908 Dr. Reuben Ottenberg appointed to Laboratory Staff. Had worked out laboratory methods for blood typing and was first to match blood of donor and recipient before transfusing.

1908 Dr. Charles Elsberg developed a new cannula to replace the Crile cannula used in transfusing until then.

1909 THE OTOLOGIC SERVICE is separated from OPHTHALMOLOGY and Dr. Fred Whiting is made Attending Otologist. This is the first independent Otologic Service in a New York hospital.

1909 Pathological Museum established.

1910 Dr. Nathan E. Brill publishes a study of a new infectious disease, which becomes known as Brill's Disease, later recognized as the endemic form of typhus fever.

1910 THE DENTAL DEPARTMENT is established.

1910 Although undergraduate medical instruction to students in two of the city's medical schools had been conducted in the Hospital in previous years, in this year the Hospital begins its formal postgraduate medical instruction, entering into its long, harmonious associa-

tion with the College of Physicians and Surgeons of Columbia University. Drs. Brill, Libman, Gerster and Berg are appointed Associate Professors at Columbia.

1910 Dr. Edwin Beer publishes his revolutionary paper, "Removal of Neoplasms of the Urinary Bladder by Fulguration," describing a new and simple method of destroying tumors of the bladder by high frequency current. Dr. Beer is appointed Attending Surgeon.

1910 Dr. Howard Lilienthal performs the first thoracic operation for abscess of the lung, using intra-tracheal insufflation anesthesia. Dr. Charles Elsberg administers this anesthesia.

1910 THE PHYSIOTHERAPY CLINIC is established.

1910 DISPENSARY ORTHOPEDIC, PHYSIOTHERAPY, and RADIOTHERAPY DEPARTMENTS organized.

1911 THE X-RAY DEPARTMENT moves into larger quarters on the ground floor of the Medical Pavilion.

1911 THE CYSTOSCOPE ROOM is built and outfitted (enlarged and refitted in 1933).

1911 George Blumenthal is elected President of the Hospital, holding this office until 1938.

1911 Paul M. and Felix M. Warburg give $20,000 to Social Welfare Department.

1912 Emil Wolff Social Service Fund ($10,000) established.

1912 Auxiliary Committee on Social Welfare appointed, including members from Hospital, from Auxiliary and public.

1912 Babette Lehman Fund established: income from $100,000 for research in prevention, not cure, of disease.

1913 A large building program is initiated. Funds are collected for the CHILDREN'S PAVILION and DISPENSARY, LABORATORY BUILDING, DIRECTOR'S HOME, EMPLOYEES' DORMITORY and a new ADULT WARD BUILDING. About one-third of the funds are contributed by the children of Barbara and Meyer Guggenheim; the Laboratory Building is donated by Adolph Lewisohn.

1913 Expansion program to cost $1,350,000 announced. $1,000,000 collected from 222 individuals by December, 1913. Adolph Lewisohn gave funds for Laboratory Building. Money for new Children's Dispensary given by Mr. and Mrs. William Walter, memorializing Florence Henrietta Walter and Marjorie Walter Goodhart.

1913 Special Neurological wards established by Samuel and Harry Sachs in memory of their parents, Joseph and Sophia Sachs.

1914 THORACIC SURGICAL SERVICE initiated, first of its kind in any hospital.

1914 The city asked Dr. Charles May to establish an EYE SERVICE at Bellevue Hospital which he directed until 1924. In the same year Dr. May invented the OPHTHALMOSCOPE bearing his name.

1914 GASTRO-ENTEROLOGY SERVICE established in Dispensary.

1914 SURGICAL SERVICE reorganized: 1) brain and spinal cord; 2) thorax; 3) stomach and duodenum; 4) kidney, ureter and bladder.

1914 Tuberculosis Ward endowed by Daniel Kops in memory of his brother Samuel.

1914 Drs. Richard C. Lewisohn and George Baehr worked out citrate transfusion technique.

1915 THE ELECTROCARDIOGRAPHY DEPARTMENT is established, one of the earliest in the United States. Wards are wired for connection with the instrument.

1915 Dr. Richard Lewisohn introduces the Citrate Method of Blood Transfusion. This epoch-making improvement by preventing the clotting of freshly drawn blood, made a transfusion a simple, efficient operation.

1915 CARDIOGRAPHIC LABORATORY established around an electrocardiograph given by children of Bernard Sutro in his memory.

1915 Dr. Lester Unger developed a two-way stopcock transfusing device to obviate need for direct transfusion.

1916 The Hospital organizes BASE HOSPITAL NUMBER 3 of the United States Army Medical Corps. Twenty-four physicians, sixty-five nurses and 155 enlisted personnel serve with this unit at Vauclaire, France.

1916 Mrs. Herbert H. Lehman leads in formation of the SOCIAL SERVICE AUXILIARY, women volunteers who attend to many wants of convalescing patients and of patients' families.

1916 Drs. Fred S. Mandlebaum and Hal Downey publish the pioneer work, *The Histo-Pathology and Biology of Gaucher's Disease—Large Cell Splenomegaly.*

1916 Children of Barbara and Meyer Guggenheim give $559,000 for new Private Pavilion of 100 rooms in memory of their parents.

1916 Wards for surgical treatment of diseases of stomach and intestines endowed by Charles A. Wimpfheimer.

1916 Mount Sinai Base Hospital organized as Red Cross unit with funds from Mr. and Mrs. George Blumenthal.

1917 Dr. Albert A. Epstein developed new, scientific concepts of nephrosis in his studies of the chemistry of the blood and tissue fluids in forms of Bright's Disease.

1917 Dr. Sydney Yankauer is appointed Attending Laryngologist.

1917 The Federation for the Support of Jewish Philanthropic Societies is organized with Mount Sinai as one of its constituents.

1917 Rosie Bernheimer and Florence B. Walter endow the Mrs. Adolph Bernheimer Memorial Ward.

1917 Dr. Reuben Ottenberg develops new method of counting blood platelets.

1919 THE CHILDREN'S HEALTH CLASS, a pioneer mental hygiene experiment, is organized by Dr. Ira Wile.

1919 Dr. I. C. Rubin publishes his discovery of the use of *Peruterine Insufflation of the Fallopian Tubes* for the diagnosis and treatment of sterility in women.

1920 THE PSYCHIATRY CLINIC (Mental Health Class), one of the earliest in a general hospital, is established by Dr. C. P. Oberndorf.

1922 The Hospital is expanded by the addition of three buildings: the PRIVATE PAVILION donated by Daniel, Murry and Sol R. Guggenheim; the CHILDREN'S PAVILION, dedicated to Lewis and Milly Einstein by their father, Henry L. Einstein; the BLUMENTHAL AUDITORIUM, donated by Mr. and Mrs. George Blumenthal.

1922 Drs. A. A. Berg and Richard Lewisohn introduce and promote in America the operation of subtotal gastrectomy for removal of part of the stomach for ulcer, soon after the operation had been developed in Austria.

1923 Residencies are established in OPHTHALMOLOGY, PEDIATRICS, NEUROLOGY, GYNECOLOGY and OTOLARYNGOLOGY.

1923 Dr. Bela Schick, discoverer of the Schick Test for susceptibility to diphtheria, is appointed Attending Pediatrician.

1923 The affiliation with the College of Physicians and Surgeons for postgraduate medical education is established on a formal basis.

1924 THE OCCUPATIONAL THERAPY DEPARTMENT is established.

1924 Dr. Israel Strauss and Dr. Joseph H. Globus complete work on Spongioblastoma of the brain, first description of an important brain tumor.

1924 The METABOLISM CLINIC is established.

1924 Drs. Emanuel Libman and Benjamin Sacks publish A *Hitherto Undescribed Form of Valvular and Mural Endocarditis.*

1925 Dr. Howard Lilienthal publishes his *Thoracic Surgery,* a classic work in its field.

1925 Drs. Nathan E. Brill, George Baehr, and Nathan Rosenthal publish a significant work, *Generalized Giant Lymph Follicle Hyperplasia of Lymph Nodes and Spleen—A Hitherto Undescribed Type.*

1925 In recognizing the importance of research a beginning is made to establish an endowment fund for its continuous support which heretofore had been dependent on occasional grants and donations.

1926 Dr. Louis Gross, author of *The Gross and Microscopic Anatomy of the Blood Vessels in the Valves of the Human Heart,* is appointed Director of Laboratories.

1926 THE CLINICAL PATHOLOGICAL CONFERENCES, to become famous throughout the city and environs, are established and regularly attended by hundreds of physicians weekly.

1926 Dr. Gregory Shwartzman is appointed Bacteriologist. Later he discovers the "Shwartzman Phenomenon," a local skin reaction to bacterial filtrates.

1927 The new building of the SCHOOL OF NURSING is completed, accommodating 490 nurses. More than half of the cost is contributed by the Trustees of the Hospital.

1927 Harold T. Hyman developed slow-drip transfusion technique to guard against sudden overloading of circulatory system.

1928 Drs. Robert T. Frank and Morris A. Goldberger publish their pioneer work on Female Sex Hormone in the blood.

1928 Dr. Joseph Turner succeeds Dr. Sigismund S. Goldwater as Director of the Hospital.

1930 Dr. Moses Swick publishes his work on Intravenous Urography, a method for X-ray diagnosis of kidney diseases.

1931 THE CONSULTATION SERVICE is established for people of moderate means who are referred by their physicians.

1931 The new SEMI-PRIVATE PAVILION is opened, a twelve-story building with 130-bed capacity, hailed as a pioneering development in hospitalization for people of moderate means. This raises the total capacity of the Hospital to 782 or 856 beds. A successful plan of Group Nursing, providing twenty-four-hour nursing care at much reduced cost, is initiated in this Pavilion.

1931 Dr. George Baehr publishes his significant study, *Renal Complications of Endocarditis.*

1932 Regional Ileitis, an inflammatory disease of the small intestine, proved to be amenable to cure by surgery, is described by Drs. Burrill B. Crohn, Gordon D. Oppenheimer and Leon Ginzburg.

1932 Drs. Harry Wessler and Harold Neuhof introduce their concepts of the pathology and treatment of putrid lung abscess.

1932 A separate NEUROSURGICAL SERVICE is created, with Dr. Ira Cohen at its head.

1932 Dr. Nathan Rosenthal, hospital hematologist, discovers that foreign proteins were responsible for post-transfusion chills. Developed a technique to prevent them.

1932 Mount Sinai opens first Department of Intravenous Therapy anywhere.

1933 To keep up the morale of convalescing patients, unemployed because of the depression, the SOCIAL SERVICE WORKROOM is established.

1933 Dr. Asher Winkelstein describes a new treatment for stomach ulcer, continuous alkalinized milk drip into the stomach.

1933 The OUT-PATIENT DEPARTMENT now housed as a separate building is enlarged and modernized.

1934 THE JOURNAL OF THE MOUNT SINAI HOSPITAL is established under the editorship of Dr. Joseph H. Globus, to disseminate practical and scientific, medical and surgical data gathered at the bedside and in the laboratories of the Hospital. The *Journal* is distributed to universities and medical libraries throughout the world, as well as to private subscribers.

1934 The Hospital provides facilities and funds for exiled European scientists to resume their research work.

1935 Drs. George Baehr, Paul Klemperer and Arthur Schifrin publish *A Diffuse Disease of the Peripheral Circulation Usually Associated with Lupus Erythematosus and Endocarditis.*

1936 Arrangements are made with the NEUSTADTER HOME in Yonkers to receive convalescent patients from the Hospital, affording poor patients a chance to recuperate in the country.

1936 The ISOLATION WARD is rebuilt and becomes the first in the city approved by the Department of Health for private patients.

1938 THE BLOOD BANK is established under the direction of the DEPARTMENT OF HEMATOLOGY, the first in New York.

1938 Leo Arnstein becomes President of the Hospital.

1939 Drs. Harold T. Hyman, Louis Chargin and William Leifer introduce *Massive Dose Chemotherapy of Early Syphilis by the Intravenous Drip Method,* as a new intensive method of five days' duration.

1939 RADIOTHERAPY is separated from ROENTGENOLOGY and established as an independent department.

1939 AN ELECTROENCEPHALOGRAPHIC UNIT is established at the Hospital for use in the diagnosis of intracranial lesions.

1940 The Third General Hospital of the United States Army is organized at the initiation of the War Department.

1940 The Hospital collects blood plasma for Britain from volunteer donors—approximately 260 per week, and by the end of 1944 over 16,000 people had volunteered as donors to the Hospital's own blood bank.

1941 The Hospital now occupies eighteen buildings, covering the larger part of three city blocks; its staff numbers 900 physicians, surgeons and laboratory scientists, and its administrative, nursing and service personnel numbers more than 1,400.

1941 NATIONAL DEFENSE ACTIVITIES are expanded to include:
First-Aid courses.
A catastrophe unit for service wherever needed in New York City and for care of disaster victims brought to the Hospital.
Emergency ambulances operated by American Women's Voluntary Services and the Red Cross.
Training of Nurses' Aides in co-operation with the Red Cross.
Lectures on medical problems in the war.
Course on War Neuroses.

1942 The Third General Hospital of the United States Army is activated and leaves in 1943 for service in North Africa, Italy, and France.

1943 Semi-private facilities are provided for children.

1944 The Greater Mount Sinai Development Fund is initiated for a post-war building and research program.

1944 Full-time positions are created in the Hospital for a Director of Medical Education and a Director of Clinical Research.

1945 The Third General Hospital returns from duty overseas.

1945 A separate Psychiatry Service is established and a full-time position is created for a Psychiatrist to the Hospital.

1946 Physicians, nurses, employees and trustees who had served with the Armed Forces numbered nearly 900 before the end of hostilities.

1947 A separate Psychiatric Ward is opened.

1948 Greater Mount Sinai Hospital Development building program is initiated. Ground broken for three buildings—the Maternity Pavilion, the Central Laboratory Building and the Berg Institute of Research, and work is begun on central kitchens.

Officers and Trustees of the Hospital Since Its Founding

PRESIDENTS

Sampson Simson *	1852–1855	Isaac Wallach *	1896–1907
John I. Hart *	1855–1856	Isaac Stern *	1907–1910
Benjamin Nathan *	1856–1870	George Blumenthal *	1911–1938
Emanuel B. Hart *	1870–1876	Leo Arnstein *	1938–1944
Adolph Hallgarten *	1876–1879	Waldemar Kops *	1944–1945
Harris Aronson *	1879–1879	George B. Bernheim	1945–1948
Hyman Blum *	1879–1896	Alfred L. Rose	1948

PRESIDENTS EMERITUS

George Blumenthal *	1938–1941	George B. Bernheim	1948

VICE-PRESIDENTS

John I. Hart *	1852–1855	Leo Arnstein *	1910–1938
Benjamin Nathan *	1855–1856	Henry L. Calman *	1917–1919
Rev. Samuel M. Isaacs *	1856–1857	S. Herbert Wolfe *	1919–1921
John D. Phillips *	1857–1858	Maurice Frankfort *	1921–1928
N. K. Rosenfeld *	1858–1866	Albert Forsch *	1924–1937
Emanuel B. Hart *	1866–1870	DeWitt Millhauser *	1928–1936
Samuel A. Lewis *	1870–1874	Waldemar Kops *	1936–1944
Lewis Fatman *	1874–1875	Leo Gottlieb	1937–1944
Harris Aronson *	1875–1879	George B. Bernheim	1938–1945
Hyman Blum *	1879–1879	Joseph Klingenstein	1944
Isaac Wallach *	1879–1896	George Lee	1945–1948
Isaac Stern *	1896–1906	Alfred L. Rose	1945–1948
David Wile *	1902–1906	Richard Goldsmith	1948–1948
George Blumenthal *	1907–1910	Charles A. Riegelman *	1948–1950
Emil S. Levi *	1907–1910	Leo Gottlieb	1948
Philip J. Goodhart *	1910–1917		

* Deceased

SECRETARIES

Benjamin Nathan *	1852–1853	Albert Sichel *	1897–1897
Theodore I. Seixas *	1853–1856	Louis M. Josephthal *	1897–1902
Samuel A. Lewis *	1857–1870	Leo Arnstein *	1902–1910
John M. Lawrence *	1871–1872	Edgar A. Hellman	1910–1911
A. S. Rosenbaum *	1872–1875	S. Herbert Wolfe *	1919–1921
Nathan Littauer *	1875–1877	Walter E. Sachs	1918–1921
Harmon H. Nathan *	1877–1879	Albert Forsch	1921–1923
Moses G. Hanauer *	1879–1882	DeWitt Millhauser *	1924–1928
L. M. Hornthal *	1882–1885	Arthur H. Harlow	1928–1938
DeWitt J. Seligman *	1885–1888	Paul M. Rosenthal	1938–1942
Henry Goldman *	1888–1891	Carl H. Pforzheimer, Jr.	1942–1943
Leopold Weil *	1892–1893	George Lee	1943–1945
George Blumenthal *	1893–1894	Richard Goldsmith	1945–1948
Marcus M. Marks *	1894–1896	Carl H. Pforzheimer, Jr.	1948

TREASURERS, ASSOCIATE AND ASSISTANT

Henry Hendricks *	1852–1861	Sidney S. Prince *	1915–1925
Joseph Fatman *	1861–1869	Nelson I. Asiel	1926–1942
Lewis May *	1869–1875	Joseph F. Cullman, Jr.	1943
Samuel M. Schaefer *	1875–1891	Ira A. Schur	1945
Elias Asiel *	1892–1915		

TRUSTEES

Sampson Simson * 1852–1855
President, 1852–1855

John I. Hart * 1852–1856
Vice-President, 1852–1855
President, 1855–1856

Henry Hendricks * 1852–1861
Treasurer, 1852–1861

Benjamin Nathan * 1852–1870
Secretary, 1852–1853
Vice-President, 1855–1856
President, 1856–1870

Rev. Samuel M. Isaacs * 1852–1857
Vice-President, 1856–1857

John M. Davies * 1852–1857

Theodore I. Seixas * 1852–1856
Secretary, 1853–1856

Isaac Phillips * 1852–1856

J. D. Phillips * 1852–1858
Vice-President, 1857–1858

Joseph Fatman * 1855–1869
Treasurer, 1861–1869

Lewis May * 1855–1876
Treasurer, 1869–1875

Joseph Seligman * 1855–1862

Samuel A. Lewis * 1856–1874
Secretary, 1857–1870
Vice-President, 1870–1874

N. K. Rosenfeld * 1857–1867
Vice-President, 1858–1866

Emanuel B. Hart * 1857–1876
Vice-President, 1866–1870
President, 1870–1876

L. M. Morrison * 1857–1862

L. Hollander * 1857–1858

* Deceased

William Heller * 1857–1861
H. J. Hart * 1858–1863
Harris Aronson * 1858–1879
Vice-President, 1875–1879
President, 1879
S. L. Cohen * 1861–1869
Re-elected, 1871–1876
Ansel Leo * 1861–1867
William Seligman * 1862–1867
S. J. Spiegelberg * 1862–1866
John M. Lawrence * 1863–1872
Secretary, 1871–1872
Henry Gitterman * 1866–1916
Jonas Heller * 1866–1870
Solomon Sommerick * 1867–1889
Isaac Herrmann * 1867–1869
J. S. Abecasis * 1869–1872
Lewis Fatman * 1869–1878
Vice-President, 1874–1875
Re-elected, 1880–1884
A. S. Rosenbaum * 1870–1875
Secretary, 1872–1875
Max Stadler * 1870–1876
Isaac S. Solomon * 1871–1878
Jos. Reckendorfer * 1871–1872
Adolph Hallgarten * 1872–1883
President, 1876–1879
J. B. Guttenberg 1871–1872
V. Henry Rothschild * 1871–1887
Abraham Simm * 1871–1874
Isaac Phillips * 1872–1874
Ferdinand Kurzman * 1872–1878
A. B. Ansbacher * 1872–1876
Re-elected, 1877–1887
David Salomon * 1872–1876
M. S. Fechheimer * 1873–1875
Re-elected, 1883–1888
Julius J. Lyons * 1874–1875
Samuel Zeimer * 1874–1877
Nathan Littauer * 1875–1879
Secretary, 1875–1877
J. M. Stine * 1875–1878
Edw. Oppenheimer * 1875–1876
Re-elected, 1892–1894
Re-elected, 1897–1910
Edw. Einstein * 1875–1880
Honorary Trustee, 1910–1919
Samuel M. Schaefer * 1875–1891
Treasurer, 1875–1891
Levi Samuels * 1875–1878
Harmon H. Nathan * 1875–1896
Secretary, 1877–1879
Hyman Blum * 1875–1896
Vice-President, 1879
President, 1879–1896
Louis Stix * 1875–1901
Honorary Trustee, 1901–1902
Isaac Blumenthal * 1875–1901
Honorary Trustee, 1901–1902
Isaac Wallach * 1877–1907
Vice-President, 1879–1896
President, 1896–1907
Solomon Sulzberger * 1877–1896
Nathan Barnett * 1878–1879
Mayer Lehman * 1878–1897
Leonard Lewisohn * 1879–1880
Jacob H. Schiff * 1879–1882
Re-elected, 1883–1885
Henry Rosenwald * 1879–1885
Louis Gans * 1879–1889
Moses G. Hanauer * 1879–1882
Secretary, 1879–1882
L. M. Hornthal * 1880–1897
Secretary, 1882–1885
Michael Dinkelspiel * 1881–1883
DeWitt J. Seligman * 1881–1888
Secretary, 1885–1888
Simon Rothschild * 1884–1905
S. L. Fatman * 1885–1898
Albert Hendricks * 1885–1886
Solomon Loeb * 1885–1897
Elias Asiel * 1886–1920
Treasurer, 1892–1915
William Vogel * 1887–1893
Anthony Wallach * 1887–1888
Adolph Herrmann * 1887–1901
Honorary Trustee, 1901–1906
Henry Goldman * 1888–1891
Secretary, 1888–1891
Leon Mandel * 1888–1891

* Deceased

Isaac Stern * 1889–1910
Vice-President, 1896–1906
President, 1907–1910
Max Nathan * 1889–1907
Honorary Trustee, 1907–1922
David Wile * 1889–1906
Second Vice-President, 1902–1906
Daniel Guggenheim * 1889–1891
Newman Cowen * 1889–1893
Leopold Weil * 1889–1903
Secretary, 1892–1893
Joshua Piza * 1890–1893
Samuel Stiefel * 1892–1894
Sigmund Oppenheimer * 1892–1894
George Blumenthal * 1892–1941
Secretary, 1893–1894
Vice-President, 1907–1910
President, 1911–1938
President Emeritus, 1938–1941
Julius Ehrmann * 1893–1897
Marcus M. Marks * 1894–1897
Secretary, 1894–1896
Isaac N. Heidelberg * 1894–1896
Re-elected, 1899–1914
Honorary Trustee, 1915–1928
J. Henry Rothschild * 1895–1897
Henry F. Veith * 1895–1897
Herman Mendel * 1895–1910
Honorary Trustee, 1910–1914
Albert Sichel * 1896–1897
Secretary, 1897
Morris S. Barnet * 1897–1917
Honorary Trustee, 1917–1921
Henry R. Ickelheimer * 1897–1905
Louis M. Josephthal * 1897–1904
Secretary, 1897–1902
Meyer H. Lehman * 1897–1916
Honorary Trustee, 1916
Kalman Haas * 1897–1912
Honorary Trustee, 1912–1916
Joseph F. Cullman * 1897–1938
Joseph Fox * 1897–1917
Honorary Trustee, 1917
Walter A. Schiffer * 1897–1898
Adolph Lewisohn * 1898–1938
Emil S. Levi * 1899–1912
Second Vice-President, 1907–1910
Honorary Trustee, 1912–1933
Murry Guggenheim * 1901–1907
Jefferson Seligman * 1901–1909
Henry Morgenthau * 1901–1917
Honorary Trustee, 1917–1946
James Speyer * 1902–1935
Honorary Trustee, 1935–1941
Leon Arnstein * 1902–1944
Secretary, 1902–1910
Second Vice-President, 1910–1917
First Vice-President, 1917–1938
President, 1938–1944
Jacob Emsheimer * 1902–1928
Hugo Blumenthal * 1902–1943
Chas. A. Wimpfheimer * 1902–1934
M. Samuel Stern * 1903–1910
Paul M. Warburg * 1904–1914
Jacob Frankenthal * 1905–1910
Henry L. Calman * 1906–1930
Second Vice-President, 1917–1919
Philip J. Goodhart * 1907–1933
Vice-President, 1910–1917
Honorary Trustee, 1933–1944
Milton C. Herrmann 1907–1909
Samuel E. Jacobs * 1907–1918
Honorary Trustee, 1918–1949
Siegfried H. Kahn 1908–1909
Abram N. Stein * 1909–1912
Edward N. Herzog 1909–1915
Edgar A. Hellman 1910–1912
Secretary, 1910–1911
Paul Gottheil * 1910–1915
Emanuel Van Raalte * 1910–1930
William I. Walter * 1910–1927
Albert W. Scholle * 1910–1916
Eugene Meyer, Jr. 1911–1920

* Deceased

S. Herbert Wolfe * 1911–1921
Secretary, 1911–1918
Second Vice-President, 1919–1921
Louis J. Horowitz 1912–1919
Norman S. Goldberger * 1912–1919
Bernard F. Gimbel 1912–1920
Daniel Kops * 1913–1923
E. J. Wile 1915–1922
G. F. Sulzberger 1915–1917
Walter E. Sachs 1915–1933
Secretary, 1918–1921
Sidney S. Prince * 1915–1929
Treasurer, 1915–1925
Maurice Frankfort * 1916–1928
Second Vice-President, 1921–1928
Honorary Trustee, 1928–1936
Myron S. Falk * 1916–1945
Walter W. Naumburg 1917
In office
Mrs. Arthur L. Carns 1917–1920
Mrs. Alfred A. Cook 1917
In office
Albert Forsch 1919–1949
Secretary, 1921–1923; *Third Vice-President*, 1924–1928
Second Vice-President, 1928–1937
Honorary Trustee, 1949
In office
Benjamin Mordecai * 1919–1943
Herbert H. Lehman 1919–1920
Jack W. Schiffer 1920–1928
Benedict Erstein 1920–1931
Charles Klingenstein * 1920–1936
Mrs. Roger W. Straus 1920
In office
Nelson I. Asiel 1921
Treasurer, 1926–1942
Honorary Trustee, 1951
In office
Mrs. Herbert H. Lehman 1921
In office

Ernst Rosenfeld * 1921–1937
Arthur H. Harlow * 1922–1942
Secretary, 1928–1938
Martin Beck * 1922–1929
David A. Schulte * 1922–1947
DeWitt Millhauser * 1922–1942
Secretary, 1924–1928
Third Vice-President, 1928–1936
Lester Hofheimer * 1922–1934
George B. Bernheim 1923
Second Vice-President, 1938–1945
President, 1945–1948
President Emeritus, 1948
In office
Alfred Jaretzki * 1923–1925
Waldemar Kops * 1924–1945
Third Vice-President, 1936–1937
Second Vice-President, 1937–1938
First Vice-President, 1938–1944
President, 1944–1945
Henry F. Wolff * 1925–1935
Mrs. Arthur Lorsch * 1926–1928
Louis W. Abrons 1928
In office
Edwin M. Berolzheimer * 1928–1941
Fred H. Greenbaum * 1928–1932
Leonard A. Hockstader 1928
In office
Arthur Lorsch * 1928–1941
Henry Morgenthau, Jr. 1928–1930
Eli Winkler * 1929–1930
David Sarnoff 1929–1936
Dr. S. S. Goldwater * 1929–1933
H. Walter Blumenthal 1930–1947
Harold D. Wimpfheimer 1930
In office
Mrs. Walter A. Hirsch 1932
In office
Paul M. Rosenthal 1932–1945
Secretary, 1938–1942
Walter S. Mack, Jr., 1933
In office

* Deceased

Mrs. George Backer 1933–1937
Alfred L. Rose 1933
Vice-President, 1945–1948
President, 1948
In office
Edwin C. Vogel 1935
In office
Carl J. Austrian 1935
In office
Leo Gottlieb 1935
Third Vice-President, 1937–1944
Vice-President, 1948
In office
Edwin I. Marks 1936
In office
Carl H. Pforzheimer, Jr. 1936
Secretary, 1942–1943; 1948
In office
Sheldon R. Coons 1936
In office
Edward A. Norman 1937
In office
Mrs. Arthur J. Cohen 1938
In office
Robert Lehman 1938
In office
Joseph F. Cullman, Jr. 1939
Treasurer, 1943
In office
Jacob C. Stone 1940–1945
George Lee 1940
Secretary, 1943–1945
Vice-President, 1945–1948
In office
Herman F. Baerwald 1940
In office
Phillip W. Haberman, Jr. 1940
In office
Alfred Rheinstein 1941
In office
Joseph Klingenstein 1941
Third Vice-President, 1944–1945
Vice-President, 1945
In office
Samuel S. Schneierson 1941
In office
Richard Goldsmith 1942
Secretary, 1945–1948
Vice-President, 1948–1948
In office
Horace S. Manges 1942
In office
Ira A. Schur 1943
Assistant Treasurer, 1945–1948
Associate Treasurer, 1948
In office
Albert L. Baum 1944
In office
Charles A. Riegelman * 1944–1950
Vice-President, 1948
Louis I. Dublin 1944–1948
Maurice Wertheim * 1945–1950
Andre Meyer 1945
In office
Lewis S. Rosenstiel 1946
In office
James Felt 1947
In office
Joseph S. Reckford * 1947–1949
Richard Deutsch 1947
In office
Max Abramovitz 1947
In office
David M. Heyman 1949
In office
Frederick D. Forsch 1950
In office
Henry A. Loeb 1950
In office
William E. Arnstein 1950
In office
Robert Bendheim 1950
In office

* Deceased

SUPERINTENDENTS AND DIRECTORS SINCE 1855

SUPERINTENDENTS — DIRECTORS [1]

Julius Raymond * 1855–1866
G. Schwarzbaum * 1867–1875
Leopold B. Simon * 1876–1879
Theodore Hadel * 1879–1892
Leopold Minzesheimer* 1892–1899
S. L. Fatman * 1899–1904
S. S. Goldwater, M.D. * 1904–1928
Joseph Turner, M.D. 1928–1948
Martin R. Steinberg, M.D., 1948

ASSOCIATE DIRECTORS

Joseph Turner, M.D. 1927–1928
Martin R. Steinberg, M.D., 1948–1948
Julien Priver, M.D. 1950–1951
Sidney M. Samis, M.D. 1951

ASSISTANT SUPERINTENDENTS — ASSISTANT DIRECTORS [1]

Leopold Minzesheimer * 1892–1892
Gustave Abrams * 1896–1902
S. S. Goldwater, M.D. * 1902–1903
Solon J. Rieser * 1903–1904
Sidney E. Goldstein 1905–1908
D. M. Bloom, M.D. * 1908–1909
H. J. Moss, M.D. 1910–1915
A. J. Beller, M.D. 1914–1915
Emanuel Giddings, M.D. * 1915–1916
Herman Smith, M.D. 1916–1919
Simon Tannenbaum, M.D. * 1918–1919
Leopold Brahdy, M.D. 1919–1920
E. M. Bluestone, M.D. 1920–1926
Joseph Turner, M.D. 1922–1927
J. J. Golub, M.D. 1926–1927
Stephen Manheimer, M.D. 1927–1937
Louis Miller, Jr. 1927–1934
J. A. Katzive, M.D. 1935–1941
Jandon Schwartz, M.D. 1935–1939
M. A. Green, M.D. 1937–1938
Maxwell S. Frank, M.D. 1938–1945
Morris H. Kreeger, M.D. 1940–1946
David H. Ross, M.D. 1941–1947
Martin R. Steinberg, M.D. 1945–1948
Julien Priver, M.D. 1946–1950
Sidney M. Samis, M.D. 1948–1951
Harry Markowitz, B.S. 1949
William L. Agress, B.A. 1950
Jack Ruthberg, M.D. 1951

* Deceased

[1] Title changed to Director and Assistant Director in 1917

Present Officers, Trustees and Committees of the Hospital

George B. Bernheim . . . *President Emeritus*
Alfred L. Rose . . . *President*
Leo Gottlieb . . . *Vice-President*
Joseph Klingenstein . . . *Vice-President*
Charles A. Riegelman * . . . *Vice-President*
Joseph F. Cullman, Jr. . . . *Treasurer*
Ira A. Schur . . . *Associate Treasurer*
Carl H. Pforzheimer, Jr. . . . *Secretary*

For the Term Expiring March, 1952

Louis W. Abrons
George B. Bernheim
Frederick D. Forsch
Richard Goldsmith
David M. Heyman
George Lee
Alfred L. Rose
Ira A. Schur
Harold D. Wimpfheimer

For the Term Expiring March, 1953

Carl J. Austrian
Herman F. Baerwald
Robert Bendheim
James Felt
Phillip W. Haberman, Jr.
Leonard A. Hockstader
Henry A. Loeb
Andre Meyer
Edwin C. Vogel

For the Term Expiring March, 1954

Max Abramovitz
William E. Arnstein
Nelson I. Asiel
Richard E. Deutsch
Mrs. Herbert H. Lehman
Walter W. Naumburg
Carl H. Pforzheimer, Jr.
Charles A. Riegelman *
Maurice Wertheim *

For the Term Expiring March, 1955

Albert L. Baum
Mrs. Arthur J. Cohen
Mrs. Alfred A. Cook
Sheldon R. Coons
Leo Gottlieb
Mrs. Walter A. Hirsch
Edward A. Norman
Lewis S. Rosenstiel
Albert Forsch, *Honorary Trustee*

* Deceased

For the Term Expiring March, 1956

Joseph F. Cullman, Jr.
Joseph Klingenstein
Robert Lehman
Walter S. Mack, Jr.
Horace S. Manges
Edwin I. Marks
Alfred Rheinstein
Samuel S. Schneierson
Mrs. Roger W. Straus

STANDING COMMITTEES OF THE BOARD OF TRUSTEES

EXECUTIVE COMMITTEE

George B. Bernheim
Joseph F. Cullman, Jr.
James Felt
Richard Goldsmith
Leo Gottlieb
Joseph Klingenstein
George Lee
Carl H. Pforzheimer, Jr.
Charles A. Riegelman *
Lewis S. Rosenstiel
Ira A. Schur
Mrs. Roger W. Straus
Edwin C. Vogel

JOINT CONFERENCE COMMITTEE

James Felt
Leo Gottlieb
Phillip W. Haberman, Jr.
Joseph Klingenstein
Edwin I. Marks
Joseph Reckford *
Charles A. Riegelman *
Alfred L. Rose
Ira A. Schur

FINANCE COMMITTEE

Robert Lehman . . . *Chairman*
Joseph Klingenstein . . . *Vice-Chairman*

Nelson I. Asiel
Joseph F. Cullman, Jr.
David M. Heyman
Leonard A. Hockstader
Henry A. Loeb
Andre Meyer
Walter W. Naumburg
Carl H. Pforzheimer, Jr.
Ira A. Schur
Edwin C. Vogel

COMMITTEE ON RULES AND LEGAL MATTERS

Carl J. Austrian . . . *Chairman*
Leo Gottlieb . . . *Vice-Chairman*

Phillip W. Haberman, Jr.
Horace S. Manges
Charles A. Riegelman *

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* Deceased

COMMITTEE ON REAL ESTATE

Horace S. Manges . . . *Chairman*
James Felt . . . *Vice-Chairman*

Louis W. Abrons
Leo Gottlieb
Leonard A. Hockstader

COMMITTEE ON PURCHASE

Joseph S. Reckford * . . . *Chairman*
Edwin I. Marks . . . *Vice-Chairman*

Mrs. Arthur J. Cohen
Walter S. Mack, Jr.
Edward A. Norman
Ira A. Schur
Harold D. Wimpfheimer

COMMITTEE ON EMPLOYEES AND EMPLOYEE RELATIONS

Richard Goldsmith . . . *Chairman*
Sheldon R. Coons . . . *Vice-Chairman*

Albert L. Baum
Samuel S. Schneierson

COMMITTEE ON BUILDING MAINTENANCE AND EQUIPMENT

James Felt . . . *Chairman*
Albert L. Baum . . . *Vice-Chairman*

Max Abramovitz
Richard Deutsch
Mrs. Walter A. Hirsch
Mrs. Roger W. Straus

COMMITTEE ON OUT-PATIENT DEPARTMENT

Joseph Klingenstein . . . *Chairman*
Mrs. Arthur J. Cohen . . . *Vice-Chairman*

Sheldon R. Coons
Richard Deutsch
Leonard A. Hockstader

COMMITTEE ON RESEARCH AND FELLOWSHIPS

George B. Bernheim . . . *Chairman*
Richard Goldsmith . . . *Vice-Chairman*

Nelson I. Asiel
George Lee
Walter W. Naumburg
Carl H. Pforzheimer, Jr.
Lewis S. Rosenstiel

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* Deceased

COMMITTEE ON BUILDING

Alfred Rheinstein . . . *Chairman*
Alfred L. Baum . . . *Vice-Chairman*

Max Abramovitz
Louis W. Abrons
Edwin I. Marks
Edwin C. Vogel

COMMITTEE ON ACCOUNTS AND REPORTS

Ira A. Schur . . . *Chairman*
Richard Goldsmith . . . *Vice-Chairman*

Herman F. Baerwald
Richard Deutsch
Samuel S. Schneierson
Maurice Wertheim *

COMMITTEE ON PRIVATE AND SEMI-PRIVATE PAVILIONS

Mrs. Roger W. Straus . . . *Chairman*
Charles A. Riegelman * . . . *Vice-Chairman*

Mrs. Arthur J. Cohen
Phillip W. Haberman, Jr.
Walter S. Mack, Jr.

COMMITTEE ON COMMUNAL RELATIONS

Edwin C. Vogel . . . *Chairman*
Maurice Wertheim * . . . *Vice-Chairman*

Sheldon R. Coons
Richard Goldsmith
Mrs. Herbert H. Lehman
Andre Meyer
Samuel S. Schneierson
Ira A. Schur

NOMINATING COMMITTEE

Maurice Wertheim * . . . *Chairman*
Sheldon R. Coons . . . *Vice-Chairman*

Herman F. Baerwald
George B. Bernheim
Mrs. Arthur J. Cohen
Richard Deutsch
Leonard A. Hockstader

COMMITTEE ON MEDICAL INSTRUCTION

Joseph F. Cullman, Jr. . . . *Chairman*
Maurice Wertheim * . . . *Vice-Chairman*

Herman F. Baerwald
Mrs. Herbert H. Lehman
Horace S. Manges
Charles A. Riegelman *

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* Deceased

COMMITTEE ON SOCIAL SERVICE

Mrs. Alfred A. Cook . . . *Chairman*
Mrs. Walter A. Hirsch . . . *Vice-Chairman*

Mrs. Arthur J. Cohen
Mrs. Herbert H. Lehman

DENTAL COMMITTEE

Leonard A. Hockstader . . . *Chairman*
Richard Goldsmith . . . *Vice-Chairman*

Carl H. Pforzheimer, Jr.

COMMITTEE ON CONVALESCENT CARE

Mrs. Walter A. Hirsch . . . *Chairman*
Leonard A. Hockstader . . . *Vice-Chairman*

Louis W. Abrons
Carl J. Austrian

COMMITTEE ON LADIES' AUXILIARY

Mrs. Arthur J. Cohen . . . *Chairman*
Mrs. Alfred A. Cook . . . *Vice-Chairman*

Mrs. Walter A. Hirsch
Mrs. Herbert H. Lehman

COMMITTEE ON NURSING AND SCHOOL OF NURSING

Charles A. Riegelman * . . . *Chairman*
Joseph F. Cullman, Jr. . . . *Vice-Chairman*

Mrs. Arthur J. Cohen
Richard Goldsmith
Phillip W. Haberman, Jr.
Joseph S. Reckford *
Harold D. Wimpfheimer

COMMITTEE ON DIETETICS

Mrs. Roger W. Straus . . . *Chairman*
Mrs. Arthur J. Cohen . . . *Vice-Chairman*

Mrs. Alfred A. Cook

* Deceased

The Present Medical and Surgical Staff

(*As of January 1, 1951*)

CONSULTING STAFF

Physicians

George Baehr, M.D.
David Beck, M.D.
Alfred Meyer, M.D.*
Eli Moschcowitz, M.D.
Bernard S. Oppenheimer, M.D.
Reuben Ottenberg, M.D.
Daniel Poll, M.D.

Allergist

Joseph Harkavy, M.D.

Cardiologist

Irving R. Roth, M.D.

Hematologist

Nathan Rosenthal, M.D.

Gastroenterologist

Burrill B. Crohn, M.D.

Pediatricians

Murray H. Bass, M.D.
Bela Schick, M.D.

Neurologists

Joseph H. Globus, M.D.
Israel Strauss, M.D.

Dermatologists

Louis Chargin, M.D.
Isadore Rosen, M.D.

Surgeons

Albert A. Berg, M.D.*
Richard Lewisohn, M.D.
Harold Neuhof, M.D.

Neurosurgeon

Ira Cohen, M.D.

Gynecologist

Isidor C. Rubin, M.D.

Urologists

Leo Edelman, M.D.
Abraham Hyman, M.D.

Otologist

Jacob L. Maybaum, M.D.

Otolaryngologist

Morris S. Bender, M.D.

Ophthalmic Surgeon

Kaufman Schlivek, M.D.

Orthopedic Surgeon

Philip D. Wilson, M.D.

* Deceased

Anesthetist
Bernard H. Eliasberg, M.D.

Physical Therapist
Heinrich F. Wolf, M.D.

Oral Surgeon
Joseph Schroff, M.D., D.D.S.

Radiologist
Arthur J. Bendick, M.D.

Dentist
Harry A. Goldberg, D.D.S.*

MEDICAL SERVICE

Physicians
Alexander B. Gutman, M.D.
Isidore Snapper, M.D.

Associate Physicians
Harold A. Abramson, M.D. (for Allergy)
Ernst P. Boas, M.D.
Benjamin Eliasoph, M.D. (for Special Service)
Charles K. Friedberg, M.D.
William M. Hitzig, M.D.
Saul Jarcho, M.D.
Arthur M. Master, M.D. (for Cardiology)
Herbert Pollack, M.D. (for Metabolic Diseases)
Coleman B. Rabin, M.D. (for Thoracic Diseases)
Solomon Silver, M.D.
Louis J. Soffer, M.D.
Lester R. Tuchman, M.D.
Peter Vogel, M.D. (for Hematology)
Louis R. Wasserman, M.D. (for Hematology)
Asher Winkelstein, M.D. (for Gastroenterology)

Adjunct Physicians
David Adlersberg, M.D. (for Metabolic Diseases)
Samuel H. Averbuck, M.D.[s]
Frank A. Bassen, M.D. (for Hematology)
Solon S. Bernstein, M.D.[s]
Frederick Bridge, M.D. (for Thoracic Diseases)
Simon Dack, M.D. (for Cardiology)
Henry Dolger, M.D. (for Metabolic Diseases)
Max Ellenberg, M.D.
Emanuel Z. Epstein, M.D.[o]
Oscar Friedman, M.D. (for Thoracic Diseases)
Isadore E. Gerber, M.D.
Edward B. Greenspan, M.D.[o]
Herman Hennell, M.D.[o]
Henry Horn, M.D.
Harry L. Jaffe, M.D. (for Cardiology)
Frederick H. King, M.D.[s]
Hyman Levy, M.D.
S. S. Lichtman, M.D.[o]
Mack Lipkin, M.D. (for Psychosomatic Medicine)
Raymond S. Megibow, M.D.

* Deceased
[s] For Special Service
[o] Off Service

Milton Mendlowitz, M.D.
Abraham Penner, M.D.°
Ely Perlman, M.D.
(for Allergy)
Alexander Richman, M.D.
(for Gastroenterology)
Arthur Schifrin, M.D.ˢ
Bernard M. Schwartz, M.D.
Sheppard Siegal, M.D.
(for Allergy)
Louis E. Siltzbach, M.D.
Arthur R. Sohval, M.D.ˢ
Clifford L. Spingarn, M.D.
Daniel Stats, M.D.
Morris F. Steinberg, M.D.
J. Edw. Stern, M.D.°
Mario Volterra, M.D.
Kaufman Wallach, M.D.°
Harry Weiss, M.D.°
Harry Yarnis, M.D.
(for Gastroenterology)
Herman Zazeela, M.D.
(for Convalescent Care)
Frederic D. Zeman, M.D.°

Senior Clinical Assistants
(Out-Patient Department)

Harold Aaron, M.D.
Jack Abry, M.D.
Joseph M. Alper, M.D.
John Amoroso, M.D.
Ludwig Anfanger, M.D.
Leon Bader, M.D.°
Joseph Bandes, M.D.
Arnold T. Benfey, M.D.°
Bennett W. Billow, M.D.
Herbert Blau, M.D.
Perry Blumberg, M.D.
Hans L. W. Blume, M.D.
William H. Branch, M.D.
Jack S. Brandes, M.D.
Arthur A. Briskier, M.D.
Morris Chamurich, M.D.
Isaac Chasatzky, M.D.
Salvatore Contento, M.D.
Albert Cornell, M.D.
Bela Danos, M.D.
Anita DeLemos, M.D.
Henry L. Dorfmann, M.D.
Morton H. Edelman, M.D.
Alan Emanuel, M.D.
Paul Fagin, M.D.
Joseph Faltitschek, M.D.
Henry Feibes, M.D.°
Samuel A. Feldman, M.D.
Leonard E. Field, M.D.
Leon Figur, M.D.
Charles Fox, M.D.
Alfred Foyer, M.D.°
Irving D. Gould, M.D.
Emil Granet, M.D.
Sidney S. Greenberg, M.D.
Paul J. Halberstadt, M.D.
Herman G. Helpern, M.D.
Leo Hennell, M.D.
Joseph Herzstein, M.D.°
Manfred Hess, M.D.
Dan Holbrooke, M.D.
Mark Imberman, M.D.
Moritz Jacobson, M.D.°
Siegbert Kamnitzer, M.D.°
Rose H. Klein, M.D.
J. John Kristal, M.D.
Herbert H. Lampert, M.D.
Milton H. Levy, M.D.
Adolph A. Lilien, M.D.°
Marvin Linick, M.D.
Egon E. Lustig, M.D.
Harold D. Margulies, M.D.
Jacob D. Matis, M.D.
Martin E. Mayer, M.D.
Herman Moses, M.D.
Robert A. Newburger, M.D.
Kermit E. Osserman, M.D.
Julius Ottenheimer, M.D.

ˢ For Special Service
° Off Service

Albert Parets, M.D.
Roman B. Perkul, M.D.
Charles Ressler, M.D.
Fritz Riesenfeld, M.D.
Adolf Rosenberg, M.D.
Jacob Rosenblatt, M.D.
Harry W. Rothman, M.D.
Michael A. Rubinstein, M.D.
George J. Sabrin, M.D.
Hans M. Salzmann, M.D.
Norman A. Samuels, M.D.
Leopold Seidenberger, M.D.°
Irving Solomon, M.D.
Irving Somach, M. D.
Eugene Somkin, M.D.
Arthur Sonnenfeld, M.D.
S. Zelig Sorkin, M.D.
Alfred Sorter, M.D.
Emanuel Stein, M.D.
Victor Stern, M.D.
Leonard Stone, M.D.
Jenny Stricker, M.D.
Mary C. Tyson, M.D.
Walther H. Ullman, M.D.°
Max Waltzer, M.D.
Rudolph Weil, M.D.
Charles Weisberg, M.D.
Adolf Weiss, M.D.°
Adolph Weissman, M.D.
Marcus Widmann, M.D.
Morton W. Willis, M.D.
Victor Willner, M.D.
Maurice E. Wolf, M.D.
Martin Wolfsen, M.D.
Morton Yohalem, M.D.
Wolf Zuckerman, M.D.

Clinical Assistants
(Out-Patient Department)

Maynard B. Badanes, M.D.
Robert Wm. Barnett, M.D.
Joseph J. Bennett, M.D.
Kenneth K. Berman, M.D.
Joseph Bernstein, M.D.
Norman Blackman, M.D.
John J. Bookman, M.D.
Henry Colcher, M.D.
Selvan Davison, M.D.
Erna S. deNauenberg, M.D.
William R. Dorrance, M.D.
Kurt Elias, M.D.
Mindel R. Erdberg, M.D.
Solomon Estren, M.D.
Mack Fieber, M.D.
Charles Forman, M.D.
Bernard I. Freedman, M.D.
Jacques L. Gabrilove, M.D.
Charles L. Gelb, M.D.
Theodore Gold, M.D.
S. Frederick Hahn, M.D.
Kurt Jellinek, M.D.
Leo Kauftheil, M.D.
Donald S. Kent, M.D.
Bernard A. Krull, M.D.
Joseph R. Kuh, M.D.[1]
Richard P. Lasser, M.D.
Louis Lazar, M.D.
Stanley L. Lee, M.D.
George C. Leiner, M.D.
Harold H. Lent, M.D.
Lawrence H. Lief, M.D.
Alfred Lilienfeld, M.D.
Bertrand Lowenstein, M.D.
Arthur W. Ludwig, M.D.
Ludwig Mendelsohn, M.D.
Joseph Neuburger, M.D.
Oscar Pascal, M.D.
S. D. Pieczenik, M.D.
Albert A. Pollack, M.D.
Leon Pordy, M.D.
Murray Raphael, M.D.
Ira A. Rashkoff, M.D.
Benjamin Richman, M.D.
Richard E. Rosenfield, M.D.
Norman Rosenthal, M.D.

° Off Service
[1] In the Armed Forces

E. Milton Sachs, M.D.
Maurice W. Schachtel, M.D.
David G. Schwartz, M.D.
Thomas Seidman, M.D.
Irene Shapiro, M.D.
Murray Y. Silver, M.D.
Samuel Sober, M.D.
Walter J. Sperling, M.D.
Paul Stein, M.D.
Roger W. Steinhardt, M.D.
Frederick A. Stenbuck, M.D.
Sidney Storch, M.D.
Albert G. Thomas, M.D.
Harold Trachtenberg, M.D.
Marc Vechsler, M.D.
John J. Webster, M.D.
Henry J. Weintraub, M.D.
Salo T. Wild, M.D.
Richard P. Williams, M.D.
Paul Winer, M.D.
Sigmund Winter, M.D.
William R. Woolner, M.D.
Stephen B. Yohalem, M.D.
Sidney P. Zimmerman, M.D.
Howard D. Zucker, M.D.
Hyman Zuckerman, M.D.

Research Assistants

John J. Bookman
Elmer R. Borun, M.D.
Jack S. Brandes, M.D.
Selvan Davison, M.D.
Stanley Drachman, M.D.
Milton E. Eisen, M.D.
Jacques L. Gabrilove, M.D.
Alvin J. Gordon, M.D.
Moritz Jacobson, M.D.
Henry D. Janowitz, M.D.
Marvin F. Levitt, M.D.
Adolph A. Lilien, M.D.
Kermit Osserman, M.D.
David H. Paley, M.D.
Albert Parets, M.D.
Louis E. Schaefer, M.D.
Leonard Scherlis, M.D.
Irving Selikoff, M.D.
Jonas H. Sirota, M.D.
William R. Woolner, M.D.
Cristos Yannios, M.D.
Stephen B. Yohalem, M.D.

Podiatrists

Paul W. Haas, D.P.
Herbert A. Heimlich, D.P.
Max G. Scharmett, D.P.

PEDIATRIC SERVICE

Pediatrician

Horace L. Hodes, M.D.

Associate Pediatricians

Samuel Karelitz, M.D.
Jerome L. Kohn, M.D.
M. Murray Peshkin, M.D. (for Allergy)

Adjunct Pediatricians

Herman Anfanger, M.D.
Sidney Blumenthal, M.D.
Alfred L. Florman, M.D.
Alfred E. Fischer, M.D.[s]
George J. Ginandes, M.D.[o]
Harold M. Goldstein, M.D.
Milton J. H. Grand, M.D.
Ralph E. Moloshok, M.D.
Rose G. Spiegel, M.D. (for Allergy)
Anne Topper, M.D.[o] (for Metabolic Diseases)

[s] For Special Service
[o] Off Service

Assistant Pediatricians
(Out-Patient Department)
William Rosenson, M.D.°
Harry O. Zamkin, M.D.°

Senior Clinical Assistants
(Out-Patient Department)
Max Baer, M.D.
Perry Blumberg, M.D.
Arthur A. Briskier, M.D.
Isaac Chasatzky, M.D.°
Hyman Cohen, M.D.
Samuel DeLange, M.D.
Aron J. Deutscher, M.D.
Else Farmer, M.D.
Gertrude Felshin, M.D.
Irving Feuer, M.D.
Maurice Grozin, M.D.°
Merrill P. Haas, M.D.
Franz H. Hanau, M.D.
Godel I. Hunter, M.D.°
Erna Konig, M.D.
Sidney D. Leader, M.D.
Walter H. Levy, M.D.
Harry V. Lomant, M.D.
Max Maier, M.D.°
Jacob D. Matis, M.D.
Ida Mayer, M.D.
William Messer, M.D.
Max Meyer, M.D.°
Hanna Mulier, M.D.°
Stephen Musliner, M.D.
Howard G. Rapaport, M.D.
Marie Louise Rie, M.D.
Jacob L. Rothstein, M.D.
Gustav Salomon, M.D.°
Maury D. Sanger, M.D.
Erich Siegel, M.D.°
S. Zelig Sorkin, M.D.
Milton Stillerman, M.D.
Morton W. Willis, M.D.
Carl Zelson, M.D.

Clinical Assistants
(Out-Patient Department)
Anne Botstein, M.D.
Edna Fleischmann, M.D.
Henry Gall, M.D.
Bennett L. Gemson, M.D.
Michael L. Gilbert, M.D.
Arthur A. Goldfarb, M.D.
Samuel Grosberg, M.D.
Else Kaufmann, M.D.
Joseph H. Kutch, M.D.
Robert D. London, M.D.
Herman Lubenstein, M.D.
Alan Maged, M.D.
Lawrence Maslansky, M.D.
Janice T. Nightingale, M.D.
Richard N. Reuben, M.D.
Stanley R. Robbin, M.D.
Nathan Schifrin, M.D.
Alfred I. Shaw, M.D.
Gertrude Sobel, M.D.
Seymour Steiner, M.D.
Sidney Wachtell, M.D.
Henry J. Weintraub, M.D.

NEUROLOGICAL SERVICE

Neurologist
Israel S. Wechsler, M.D.

Associate Neurologists
Morris B. Bender, M.D.
Richard M. Brickner, M.D.
Hans Strauss, M.D.
(for Electroencephalography)
Edwin A. Weinstein, M.D.

° Off Service

Adjunct Neurologists

I. S. Freiman, M.D.
Louis Greenstein, M.D.
(for Electroencephalography)
Lawrence I. Kaplan, M.D.
Judd Marmor, M.D.[o]
William Needles, M.D.[o]
Raymond L. Osborne, M.D.
Mortimer Ostow, M.D.
Milton R. Sapirstein, M.D.
Mortimer F. Shapiro, M.D.

Senior Clinical Assistants
(Out-Patient Department)

David Gerst, M.D.
David Gersten, M.D.
Kurt Spaeth, M.D.

Clinical Assistant
(Out-Patient Department)

Kenneth M. Gang, M.D.

Research Assistant

Leroy Sugarman, M.D.

Assistant Clinical Psychologist

Robert L. Kahn, M.A.

PSYCHIATRIC SERVICE

Psychiatrist

M. Ralph Kaufman, M.D.

Associate Psychiatrists

Sandor Lorand, M.D.[o]
Sydney G. Margolin, M.D.
Clarence P. Oberndorf, M.D.[o]
S. Mouchly Small, M.D.[r]
Harry I. Weinstock, M.D.

Adjunct Psychiatrists

Alexandra Adler, M.D.[r]
Charles Fisher, M.D.
Mark Gerstle, Jr., M.D.
P. Goolker, M.D.[s]
David Kairys, M.D.
Samuel R. Lehrman, M.D.
Louis Linn, M.D.
Daniel M. Lipshutz, M.D.
Bernard C. Meyer, M.D.
Samuel R. Rosen, M.D.
Martin Schreiber, M.D.

Senior Clinical Assistants

Harold R. Fox, M.D.
Ernst Hammerschlag, M.D.[o]

Clinical Assistants

Herman S. Alpert, M.D.
Morris H. Bernstein, M.D.
Paul H. Brauer, M.D.
Selwyn Brody, M.D.
Lili R. Bussel, M.D.
M. Michael Cohen, M.D.
Alfred T. Corvin, M.D.
Bernard D. Fine, M.D.

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[o] Off Service
[r] Resigned
[s] For Special Service

Abraham N. Franzblau, M.D.
Elias H. Gerchick, M.D.
Bernard M. Goertzel, M.D.
Alvin I. Goldfarb, M.D.
Meyer E. Golob, M.D.
Leon M. Golub, M.D.
David Gross, M.D.
Robert A. Hall, M.D.
Irving B. Harrison, M.D.
Elizabeth Herzog, M.D.
Elizabeth Huff, M.D.
Edward D. Joseph, M.D.
Paul E. Kaunitz, M.D.
Abraham S. Lenzner, M.D.
Theodore Meltzer, M.D.
Francisco F. Merino, M.D.
Ellis J. Mischel, M.D.
George W. Naumburg, Jr., M.D.*
Jack Nelson, M.D.
Charles Otchin, M.D.
Robert T. Porter, M.D.
Victor H. Rosen, M.D.
Lawrence J. Roose, M.D.
Joseph E. Rubinstein, M.D.
Jack G. Sheps, M.D.
Joseph Schein, M.D.
Claire Selzer, M.D.
Adele Sicular, M.D.
Aaron Stein, M.D.
Martin Stein, M.D.
Samuel F. Tabbat, M.D.
Emery I. Wells, M.D.

CHILD PSYCHIATRY DIVISION

Associate Psychiatrist
Abram Blau, M.D.

Adjunct Psychiatrists
Wilfred C. Hulse, M.D.
Joseph M. Krimsley, M.D.
Jack Rapoport, M.D.
Nathan N. Root, M.D.
Leo A. Spiegel

Clinical Assistants
Edward R. Adelson, M.D.
Cheri Appel, M.D.
Alonzo J. Beavers, Jr., M.D.
Charles Beck, M.D.
Irving G. Crain, M.D.
Maria F. Fleischl, M.D.
Irving Galin, M.D.
Richard E. Gordon, M.D.[1]
Esther Haar, M.D.
Edith M. Jurka, M.D.
William V. Lulow, M.D.
Alvin F. Meyer, M.D.
Howard H. Schlossman, M.D.
Bertram A. Slaff, M.D.
Irving Sternschein, M.D.

SECTION OF PSYCHOLOGY

Clinical Psychologist
Fred Brown, Ph.D.

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[1] In the Armed Forces
* Liaison Psychiatrist to Neustadter Convalescent Home

ADULT PSYCHIATRY DIVISION

Assistant Clinical Psychologists

Harvey Birnbaum, M.D.
Herbert V. Fleischer, M.A.
Abraham Levine, M.A.
Israel H. Rosenberg, M.A.
Sidney S. Saltzman, M.A.
Arlene F. Samuels, M.A.
Arthur A. Schwartz, M.A.
Sheldon Waxenberg, M.A.

CHILD PSYCHIATRY DIVISION

Associate Clinical Psychologist

Rose Davis, M.A.

Assistant Clinical Psychologists

Janet Anzel, M.A. (Tutorial)
Anna E. Gold, M.A.
Jack D. Krasner, M.A.
Hanna Leuchtmann, M.A. (Tutorial)
Barbara Rose, M.A. (Tutorial)
Herbert C. Lipman, M.A. (Tutorial)

DERMATOLOGICAL SERVICE

Dermatologist

Samuel M. Peck, M.D.

Associate Dermatologists

William Leifer, M.D.
Herbert Rosenfeld, M.D.

Adjunct Dermatologists

Howard T. Behrman, M.D.
Arthur W. Glick, M.D.
Laurence L. Palitz, M.D.
Max Scheer, M.D.°

Assistant Dermatologists
(Out-Patient Department)

Lewis A. Goldberger, M.D.°
Joel Schweig, M.D.
Charles Wolf, M.D.°

Senior Clinical Assistants
(Out-Patient Department)

Berthold Bachrach, M.D.°
Eugene T. Bernstein, M.D.°
Raphael Breakstone, M.D.
Frank E. Cross, M.D.°
Julius Davis, M.D.
Kurt Franklin, M.D.
Leo G. Hess, M.D.
George Klein, M.D.
Abner Kurtin, M.D.
Morton Landau, M.D.
Frederick B. Laufer, M.D.
Ellen Reiner, M.D.
Sidney Rooff, M.D.
Moritz Salomonski-Rosen, M.D.°
Harry Sherwood, M.D.°
Leonard J. Trilling, M.D.
Gustav Weissberg, M.D.
Reuben Yontef, M.D.

° Off Service

Clinical Assistants
(Out-Patient Department)

Alfred Joseph, M.D.
Leonard V. Kornblee, M.D.
Joseph Markel, M.D.

SURGICAL SERVICE

Surgeons

Ralph Colp, M.D.
John H. Garlock, M.D.
Arthur S. W. Touroff, M.D.

Associate Surgeons

Ernest E. Arnheim, M.D.
(for Pediatric Surgery)
Arthur H. Aufses, M.D.
Leon Ginzburg, M.D.[o]
Samuel H. Klein, M.D.
Percy Klingenstein, M.D.
Sylvan D. Manheim, M.D.
(for Rectal Diseases)
Samuel Silbert, M.D.
(for Peripheral Vascular Diseases)

Adjunct Surgeons

Lester Blum, M.D.
David A. Dreiling, M.D.
Leonard J. Druckerman, M.D.[s]
Harry E. Ehrlich, M.D.
(for Head and Neck Surgery)
Ameil Glass, M.D.[o]
Aaron Himmelstein, M.D.
Elliott S. Hurwitt, M.D.[r]
(for Pediatric Surgery)
Edward E. Jemerin, M.D.
Gerson J. Lesnick, M.D.
Louis J. Lester, M.D.
Albert S. Lyons, M.D.
Sigmund Mage, M.D.[o]
Myron A. Sallick, M.D.[o]
Gabriel P. Seley, M.D.
Vernon A. Weinstein, M.D.

Senior Clinical Assistants
(Out-Patient Department)

Moses Benmosche, M.D.[o]
George F. Dayton, M.D.[o]
Milton E. Eisen, M.D.
Dorian Eisenklam, M.D.
Wolf Elkan, M.D.
Lawrence Essenson, M.D.
Bernard Friedman, M.D.
Aron Goldschmidt, M.D.
Henry Haimovici, M.D.
Maurice S. Harte, M.D.
Erwin Horner, M.D.[o]
Harry Kassop, M.D.
Heinz Lippmann, M.D.
Hans L. J. Manheim, M.D.
Samuel J. Megibow, M.D.
Maurice Munzer, M.D.[1]
Hellmuth Oppenheimer, M.D.
Willy Perez, M.D.[o]
Henry Peskin, M.D.
Erich Plocki, M.D.
Irving Rachlin, M.D.
Irving Schoenfeld, M.D.
George Schreiber, M.D.
Emil Schwarzman, M.D.[o]
Bernard E. Simon, M.D.
Otto Sternberg, M.D.
Selig Strax, M.D.
Robert Turrell, M.D.
Harry Warner, M.D.
Martin B. Welt, M.D.
Herman Zazeela, M.D.

[s] For Special Service [o] Off Service [r] Resigned [1] In the Armed Forces

Clinical Assistants
(Out-Patient Department)

Ben F. Bryer, M.D.
David Elkin, M.D.
Arthur Feitell, M.D.
Ralph W. Flax, M.D.
Harry Golodner, M.D.
Oscar Greene, M.D.
Henry J. Heimlich, M.D.
Robert A. Herfort, M.D.
Julian B. Herrmann, M.D.
Herbert M. Jacobs, M.D.
Paul A. Kirschner, M.D.
Julius J. Leichtling, M.D.
Hyman J. Levine, M.D.
Daniel Luger, M.D.
Alexander P. Maybarduk, M.D.
Robert A. Nabatoff, M.D.
Eli Perchuk, M.D.
Bernard F. Robinson, M.D.
Leon D. Star, M.D.[1]
Irving J. Thorne, M.D.
David O. Weiner, M.D.
Harvey Wiener, M.D.
Herman D. Zeifer, M.D.

Research Assistants

Ben F. Bryer, M.D.
Samuel J. Megibow, M.D.
Robert A. Nabatoff, M.D.
Stephan S. Rosenak, M.D.

Podiatrists

Benedict S. Gale, D.P.
William Scharmett, D.P.
Arthur S. Wolstin, D.P.

NEUROSURGICAL SERVICE

Neurosurgeon
(Vacant)

Associate Neurosurgeon
Sidney W. Gross, M.D.

Adjunct Neurosurgeon
Benno Schlesinger, M.D.

Research Assistant
Kenneth M. Gang, M.D.

UROLOGICAL SERVICE

Urologist
Gordon D. Oppenheimer, M.D.

Associate Urologist
Moses Swick, M.D.

Adjunct Urologists
Stanley I. Glickman, M.D.
H. Evans Leiter, M.D.°
Lewis T. Mann, M.D.°
William H. Mencher, M.D.°
Lester Narins, M.D.

Assistant Urologist
(Out-Patient Department)

William L. Ferber, M.D.

[1] In the Armed Forces
° Off Service

Senior Clinical Assistants
(Out-Patient Department)

Ernest Bamberger, M.D.
Erwin Batzdorf, M.D.°
Louis Bollag, M.D.
Kurt Cronheim, M.D.
Max David, M.D.
Kurt A. Heinrich, M.D.
Arthur Israel, M.D.°
Harry D. Italiener, M.D.
Edward Jacobs, M.D.
Max Jacoby, M.D.°
Ernst Kornitzer, M.D.°
Max Levi, M.D.
Adolf Lowenthal, M.D.
Bruno Mark, M.D.°
Rudolf Paschkis, M.D.°
Aaron Prigot, M.D.
Stephan S. Rosenak, M.D.
Martin J. Rosenberg, M.D.°

Clinical Assistants
(Out-Patient Department)

John R. Herman, M.D.
Joseph S. Mansker, M.D.
Paul Reiser, M.D.
Joseph M. Silagy, M.D.

GYNECOLOGICAL SERVICE

Gynecologist
Morris A. Goldberger, M.D.

Associate Gynecologist
Joseph A. Gaines, M.D.

Adjunct Gynecologists
Arthur M. Davids, M.D.
Emanuel Klempner, M.D.
Nathan Mintz, M.D.
Robert I. Walter, M.D.
Seymour Wimpfheimer, M.D.ˢ

Assistant Gynecologists
(Out-Patient Department)

Maurice E. Mintz, M.D.
Frank Spielman, M.D.

Senior Clinical Assistants
(Out-Patient Department)

Ernest G. Abraham, M.D.
Hans Auerbach, M.D.
Bernard Berglas, M.D.
Hilliard Dubrow, M.D.
Gertrude Felshin, M.D.
Irving C. Fischer, M.D.
Stefanie K. Haas, M.D.
Bruno Kriss, M.D.
Maximilian Lewitter, M.D.
Louis Portnoy, M.D.
Jack J. Squire, M.D.

° Off Service
ˢ For Special Service

Clinical Assistants
(Out-Patient Department)

Irving Abelow, M.D.
Alexei N. Berk, M.D.
Sidney Cohn, M.D.
Sidney Druce, M.D.
William Epstein, M.D.
George C. Escher, M.D.
Eugene Fischel, M.D.
Emanuel M. Greenberg, M.D.
Irving Greene, M.D.
Norman Herzig, M.D.
Seymour M. Katz, M.D.
Robert Landesman, M.D.
Louis S. Lapid, M.D.
Gisella Perl, M.D.
Charles S. Poole, M.D.
Meyer D. Schnall, M.D.
Herbert J. Simon, M.D.
Myron E. Steinberg, M.D.
Daniel Wanderman, M.D.
Irwin Weiner, M.D.
David Zakin, M.D.

OTOLARYNGOLOGICAL SERVICE

Otolaryngologist
Rudolph Kramer, M.D.

Associate Otolaryngologists
Joseph G. Druss, M.D.
Irving B. Goldman, M.D.
(for Rhinoplasty)
Joseph L. Goldman, M.D.
Samuel Rosen, M.D.
Harry Rosenwasser, M.D.
Max L. Som, M.D.

Adjunct Otolaryngologists
Nathan Adelman, M.D.
Benjamin I. Allen, M.D.[r]
Leon M. Arnold, M.D.
Samuel M. Bloom, M.D.
Joseph Freeman, M.D.
Louis Kleinfeld, M.D.[o]
Eugene R. Snyder, M.D.

Senior Clinical Assistants
(Out-Patient Department)

Adolph A. Apton, M.D.
Leonard S. Bases, M.D.
Joseph Berberich, M.D.
Hans Brinitzer, M.D.
Friedrich S. Brodnitz, M.D.
Simon Malowist, M.D.
Fred L. Marx, M.D.
S. Mencher, M.D.[o]
Richard Pollak, M.D.

Clinical Assistants
(Out-Patient Department)

Jacob S. Aronoff, M.D.
Charles H. Rosenberg, M.D.

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[r] Resigned
[o] Off Service

OPHTHALMOLOGICAL SERVICE

Ophthalmic Surgeon

Henry Minsky, M.D.

Associate Ophthalmic Surgeons

Joseph Laval, M.D.
David Wexler, M.D.

Adjunct Ophthalmic Surgeons

Sylvan Bloomfield, M.D.
Jacob Goldsmith, M.D.
Abraham L. Kornzweig, M.D.
Frederick H. Theodore, M.D.

Senior Clinical Assistants
(Out-Patient Department)

Bertha Gladstern, M.D.
Isaak Horovitz, M.D.°
Herbert M. Katzin, M.D.
Francis J. Langendorf, M.D.°
Norbert Lewin, M.D.
Max Mannheimer, M.D.
Paul Muller, M.D.

Clinical Assistants
(Out-Patient Department)

Howard J. Agatston, M.D.
Alan H. Barnert, M.D.
Gerald M. Branower, M.D.
William I. Glass, M.D.
Milton Greenberg, M.D.
Morris Feldstein, M.D.
Franja Lowy, M.D.
Julius Schneider, M.D.
Edward L. Seretan, M.D.

Refractionists
(Out-Patient Department)

Bertha Gladstern, M.D.
Max Mannheimer, M.D.

ORTHOPEDIC SURGERY SERVICE

Orthopedic Surgeon

Robert K. Lippmann, M.D.

Associate Orthopedic Surgeons

Edgar M. Bick, M.D.
Albert J. Schein, M.D.

Adjunct Orthopedic Surgeons

Alvin M. Arkin, M.D.°
Benjamin B. Greenberg, M.D.°
Joel Hartley, M.D.
Frederick M. Marek, M.D.
Robert S. Siffert, M.D.
Edmund Uhry, Jr., M.D.

Senior Clinical Assistants
(Out-Patient Department)

Helen Schur, M.D.
Herman Sternberg, M.D.
Carl Zelson, M.D.

° Off Service

Clinical Assistants
(Out-Patient Department)

Irving V. Glick, M.D.
Jacob F. Katz, M.D.

Podiatrists
(Out-Patient Department)

Paul W. Haas, D.P.
Max G. Scharmett, D.P.

DEPARTMENT OF ANESTHESIA

Anesthetist
Milton H. Adelman, M.D.

Associate Anesthetist
Sydney S. Lyons, M.D.

Adjunct Anesthetists

Sara Bass, M.D.
Max Bien, M.D.
Seymour Miller, M.D.
Arthur I. Rosenthal, M.D.

Medical Anesthetists

Evelyn T. Clerico, M.D.
Elliott Jacobson, M.D.

DEPARTMENT OF DENTAL AND ORAL SURGERY

Dentist
Leo Stern, D.D.S.

Associate Dentists

Ralph H. Brodsky, D.D.S.
Lester H. Cahn, D.D.S.
(for Oral Pathology)
Dennis D. Glucksman, D.D.S.[o]
J. A. Salzmann, D.D.S.

Adjunct Dentists

Leon Eisenbud, D.D.S.
Marvin G. Freid, D.D.S.
Jack S. Klatell, D.D.S.
Daniel M. Kollen, D.D.S.
Raymond L. Kotch, D.D.S.[1]
Arthur A. Kulick, D.D.S.[o]
Max Michaelson, D.D.S.
Leo Stern, Jr., D.D.S.

Senior Clinical Assistants
(Out-Patient Department)

Henry I. Cohen, D.D.S.
Herbert L. Goodwin, D.M.D.
Samuel S. Gordon, D.D.S.
Max Greenspan, D.D.S.
Jerome L. Klaif, D.D.S.
Emanuel Knishkowy, D.D.S.
Louis Kroll, D.M.D.
Melvin L. Morris, D.D.S.
Sidney Retzker, D.D.S.
Milton Schwartz, D.D.S.
Alfred R. Shepard, D.D.S.
Maurice V. Stavin, D.D.S.
George Trattner, D.D.S.
Milton Wechsler, D.D.S.

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[o] Off Service
[1] In the Armed Forces

Clinical Assistants
(Out-Patient Department)

Melvin Amler, D.D.S.
Dennis Berger, D.D.S.[1]
A. Lawrence Bram, D.D.S.[1]
Jack Brenner, D.D.S.[1]
Morton R. Brenner, D.D.S.
Irving H. Busgang, D.D.S.[1]
Michael Cagin, D.D.S.
Oscar Check, D.D.S.
Menasseh Elson, D.D.S.
Clifford Feinstein, D.D.S.
Robert L. Fisher, D.D.S.
Arthur Hader, D.D.S.
Henry A. Hirschhorn, D.D.S.
Josef Horowitz, D.D.S.
Burton M. Jerome, D.D.S.
Milton W. Kelmans, D.D.S.
Stanley Kollen, D.D.S.
Jacob Leiter, D.D.S.
Bernard Levy, D.D.S.
Simon L. Lifton, D.D.S.
Milton A. Marten, D.D.S.
Jerome Meadow, D.D.S.
Jerome S. Mittelman, D.D.S.
David Mossberg, D.D.S.
Maurice Oringer, D.D.S.
Richard Pasternak, D.D.S.
Solomon Pearlman, D.D.S.
Philip Person, D.D.S.
Ivan B. Prince, D.D.S.
Chester B. Rackson, D.D.S.[1]
Leo H. Roper, D.D.S.
Allan Russell, D.D.S.
Julian S. Sachs, D.D.S.
Richard B. Schron, D.D.S.
Lester Schwadron, D.D.S.
Martin T. Siegel, D.D.S.
Harvey L. Small, D.D.S.[1]
Richard Spector, D.D.S.
Murray Spielman, D.D.S.
Joseph R. Stein, D.D.S.
Peter Stern, D.D.S.
Mortimer Stern, D.D.S.
Stanley Stutman, D.D.S.
Stanley W. Vogel, D.D.S.
Stanley L. Wein, D.D.S.
Charles H. Wolfe, D.D.S.
Harry S. Zappler, D.D.S.
Sylvia E. Zappler, D.D.S.

DEPARTMENT OF PHYSICAL MEDICINE

Physiatrist

William Bierman, M.D.

Assistant Physiatrists
(Out-Patient Department)

Eric Levy, M.D.
Eugene Neuwirth, M.D.

Clinical Assistants
(Out-Patient Department)

Morton J. Greene, M.D.
Stanley R. Livingston, M.D.

CARDIOGRAPHIC LABORATORY

Cardiologist
Arthur M. Master, M.D.

Research Associate
Bruno Kisch, M.D.

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[1] In the Armed Forces

Research Assistants

Harold S. Arai, M.D.[1]
Kenneth Chesky, M.D.
Leonard E. Field, M.D.
Isaac C. Goldstein, M.D.
Leon Pordy, M.D.
Benjamin Richman, M.D.
Sidney Storch, M.D.

THE LABORATORIES

Sergei Feitelberg, M.D. ... ... *Physicist*
Paul Klemperer, M.D. ... ... *Pathologist*
Gregory Shwartzman, M.D. ... ... *Bacteriologist*
Harry H. Sobotka, Ph.D. ... ... *Chemist*
Joseph H. Globus, M.D. ... ... *Neuropathologist*
Louis R. Wasserman, M.D. ... ... *Hematologist*
Sadao Otani, M.D. ... ... *Associate Pathologist*
S. Stanley Schneierson, M.D. ... ... *Associate Bacteriologist*
Alice I. Bernheim, M.D. ... ... *Senior Assistant Pathologist*
Cecele Herschberger, B.S. ... ... *Senior Assistant Bacteriologist*
Miriam Reiner, M.S. ... ... *Senior Assistant Chemist*
Robert Loevinger, Ph.D. ... ... *Assistant Physicist*
James J. Hay ... ... *Assistant Physicist*
Gerda Gernsheim Mayer, Ph.D. ... ... *Assistant Chemist*
Blanca Schneid, M.D. ... ... *Assistant in Clinical Pathology*

Special Laboratory Appointments

Charles L. Lieb, M.D. ... ... *Consultant in Pharmacology*
Ernst P. Pick, M.D. ... ... *Associate in Pharmacology*
Franklin Hollander, Ph.D. ... ... *Associate in Gastric Physiology*
Jacob Chanley, Ph.D. ... ... *Research Associate in Chemistry*
Max Adler, Ph.D. ... ... *Research Associate in Gastroenterology*
Arthur Weil, M.D. ... ... *Research Associate in Neuropathology*
Frederic E. Stynler, Ph.D. ... ... *Research Associate in Chemistry*

Fellows
(1950–1951)

Joseph Bellamy, M.D. ... ... *Theodore Escherich Fellowship in Pathology*
Norman F. Boas, M.D. ... ... *Charles Klingenstein Fellowship in Medicine*
Morton S. Bryer, M.D. ... ... *Schenley Fellowship in Medicine*
William R. Dorrance, M.D. ... ... *Sara Welt Fellowship in Medicine*
Stanley R. Drachman, M.D. ... ... *Sara Welt Fellowship in Medicine*
Joan Eliasoph ... ... *Moses Heineman Fellowship in Medicine*
William E. Finkelstein, M.D. ... *Sara Welt Fellowship in Pathology*

[1] In the Armed Forces

Lawrence J. Giuffra, M.D.	*Sara Welt Fellowship in Pathology*
Louis S. Lapid, M.D.	*Dr. Joseph Brettauer Fellowship in Gynecology*
Leonard C. Malis, M.D.	*Dr. Isador Abrahamson Fellowship in Neurophysiology*
Robert S. Siffert, M.D.	*George Blumenthal, Jr. Fellowship in Pathology*
Irwin Weiner, M.D.	*Dr. Joseph Brettauer Fellowship in Gynecology (Endocrinology)*
Howard L. Moscovitz, M.D.	*Elsa and William Menke Fellowship in Medicine*

Research Assistants

Bacteriology

Gisella L. Cahnman, Ph.D.
Morton E. Edelman, M.D.
Alice Fisher, A.B.
Irving Zimmerman, D.V.M.

Neuropathology

Joseph A. Epstein, M.D.

Chemistry

Harold Aaron, M.D.
John Austin
Gertrude Felshin, M.D.
Fritz Lieben, Ph.D.
Anita V. Luisada Opper, Ph.D.
Irving Solomon, M.D.

Pathology

Jacob Churg, M.D.
Sonia Dobkevitch, M.D.
Jacob Dyckman, M.D.
Edith Grishman, M.D.
Alexander Laufer, M.D.
Stanley L. Lee, M.D.
Francisco Lichtenberg, M.D.
Egon Lichtenberger, M.D.
Arthur W. Ludwig, M.D.
Max Wachstein, M.D.
Frederick G. Zak, M.D.
Howard D. Zucker, M.D.

Gastroenterology

Joseph Bandes, M.D.
Israel Glazer, M.D.
Milton H. Levy, M.D.
Norman A. Samuels, M.D.

Hematology

Solomon Estren, M.D.
Richard E. Rosenfield, M.D.
Irene Shapiro, M.D.
Leon D. Star, M.D.[1]
Mary C. Tyson, M.D.

Physics

Ira A. Rashkoff, M.D.
Lena Sharney, Ph.D.

DEPARTMENT OF ROENTGENOLOGY

Radiologist

Bernard S. Wolf, M.D.

Associate Radiologists

Benjamin Copleman, M.D.[r]
Maxwell H. Poppel, M.D.[r]
Coleman B. Rabin, M.D.

Adjunct Radiologists

Sigmund Brahms, M.D.
Joan J. Lipsay, M.D.
Richard H. Marshak, M.D.
William Merrit, M.D.
John E. Moseley, M.D.
Charles M. Newman, M.D.
Herman C. Zuckerman, M.D.

DEPARTMENT OF RADIOTHERAPY

Radiotherapist

William Harris, M.D.

Associate Radiotherapists

Albert Kean, M.D.
Sidney M. Silverstone, M.D.

Adjunct Radiotherapists

Arnold L. Bachman, M.D.
Charles Botstein, M.D.
Norman Simon, M.D.

Consulting Physicist

Carl B. Braestrup, B.S.

DIRECTOR OF CONSULTATION SERVICE

Herman Lande, M.D.

DISTRICT PHYSICIAN

Abraham Jerskey, M.D.

PHYSICAN TO EMPLOYEES

Morton H. Edelman, M.D.

[r] Resigned

William Henry Welch Lectures Given at the Mount Sinai Hospital

PROFESSOR RICHARD WILLSTATTER, formerly Director of the Chemical Laboratory and Professor of Organic Chemistry, University of Munich, Germany
April 13 and 14, 1927
SUBJECT: "Some Recent Advances in Enzyme Research"

DR. SIMON FLEXNER, Director, The Rockefeller Institute for Medical Research, New York
February 1 and 4, 1929
SUBJECT: "Twenty-Five Years of Epidemic Poliomyelitis"
Lecture 1—"Epidemiology and Etiology"
Lecture 2—"Pathology, Specific Prevention and Treatment"

DR. THEOBALD SMITH, Director Emeritus, Department of Animal Pathology, The Rockefeller Institute for Medical Research, Princeton, New Jersey
October 17 and 18, 1930
SUBJECT: "The General Problem of Respiratory Diseases as Illumined by Comparative Data"
"A Comparative Study of Spontaneous and Induced Streptococcus Disease in the Same Species"

DR. HARVEY CUSHING, Moseley Professor of Surgery, Harvard University
April 30, 1931
SUBJECT: "The Posterior Pituitary Hormone and the Parasympathetic Nervous System"

PROFESSOR JAMES B. COLLIP, Professor of Biochemistry, McGill University, Montreal, Canada
March 26 and 27, 1934
SUBJECT: "Recent Advances in the Physiology of the Anterior Pituitary Gland"

DR. GEORGE HOYT WHIPPLE, Dean and Professor of Pathology, University of Rochester School of Medicine, Rochester, New York

December 12 and 13, 1935
SUBJECT: "Ways and Means of Hemoglobin Construction Within the Body"
"Plasma Protein Regeneration as Influenced by Various Factors"

SIR HENRY H. DALE, Director, The National Institute for Medical Research, London, England
May 7 and 10, 1937
SUBJECT: "Acetylcholine as a Chemic Transmitter of the Effects of Nerve Impulses"
Lecture 1—"History of Ideas and Evidence. Peripheral Autonomic Actions. Functional Nomenclature of Nerve Fibres"
Lecture 2—"Chemical Transmission at Ganglionic Synapses and Voluntary Motor Nerve Endings. Some General Considerations"

PROFESSOR WALTER BRADFORD CANNON, George Higginson Professor of Physiology, Harvard Medical School
May 18 and 20, 1938
SUBJECT: "Some New Aspects of Homeostasis"
"The Aging of Homeostatic Mechanisms"

DR. HERBERT M. EVANS, Morris Herzstein Professor of Biology, University of California, Berkeley, California
October 20 and 24, 1939
SUBJECT: "New Lights on the Biological Role of the Anti-Sterility Vitamin E"
"Some Unsolved Problems in Anterior Pituitary Physiology"

DR. PEYTON ROUS, Member, The Rockefeller Institute for Medical Research, New York
December 6 and 9, 1940
SUBJECT: "Conditions Determining Cancer"
"The Known Causes of Cancer"

DR. HOMER W. SMITH, Professor of Physiology, New York University College of Medicine
January 5 and 12, 1943
SUBJECT: "The Physiology of the Kidney"

DR. FRANK C. MANN, Professor of Pathology and Experimental Physiology and Surgery, Mayo Foundation for Medical Education and Research, Rochester, Minnesota
April 3 and 4, 1944
SUBJECT: "Studies on the Dehepatized Animal: A Review"
"Restoration and Pathologic Reactions of the Liver"

DR. EDWIN J. COHN, Professor of Biochemistry, Head of Department of Physical Chemistry, Harvard Medical School
April 26 and 30, 1945
SUBJECT: "Blood and Blood Derivatives"

Lecture 1—"Separation, Concentration and Characterization of Blood Derivatives"
Lecture 2—"Natural Functions and Clinical Uses of Blood Derivatives"

DR. DAVID RITTENBERG, Assistant Professor of Biochemistry, College of Physicians and Surgeons, Columbia University
February 5 and 7, 1947
SUBJECT: "The Application of the Isotope Technique to Problems of Biology and Medicine"

DR. B. C. G. KNIGHT, Department of Biochemistry, Wellcome Physiological Research Laboratories, Bechemham, Kent, England
January 6, 1948
SUBJECT: "Essential Metabolites and Anti-metabolites"

DR. TOM D. SPIES, Director of the Nutrition Clinic, Hillman Hospital, Birmingham, Alabama
March 31, 1948
SUBJECT: "Recent Studies on Deficiency Diseases"

DR. JOHN H. LAWRENCE, Director, Donner Laboratory of Medical Physics, University of California, Berkeley, California
February 2 and 4, 1949
SUBJECT: "Tracer Studies with Artificial Radioactivity"
"Therapeutic Studies with Artificial Radioactivity"

DR. I. FANKUCHEN, Ph.D., Professor of Applied Physics at the Polytechnic Institute for Medical Research
January 30, 1950
SUBJECT: "Bacteriological Aspects of Tuberculosis"

DR. ALFRED BLALOCK, Professor of Surgery and Director of the Department of Surgery, Johns Hopkins University; Surgeon-in-Chief of the Johns Hopkins Hospital
January 18, 1951
SUBJECT: "Cardiovascular Surgery"

DR. SHIELDS WARREN, Director of the Division of Biology and Medicine of the Atomic Energy Commission
January 18, 1952
SUBJECT: "The Early Changes Caused by Radiation"

DR. GILBERT DALLDORF, Director of the Division of Laboratories and Research, New York State Department of Health
February 13, 1952
SUBJECT: "From Clostridium Welchii to the Coxsacki Viruses: Changing Microbiology"

Edward Gamaliel Janeway Lectures Given at the Mount Sinai Hospital

DR. J. J. R. MACLEOD, Professor of Physiology, University of Toronto, Canada

1923

SUBJECT: "Insulin"

PROFESSOR LUDWIG ASCHOFF, Professor of Pathology and Pathological Anatomy, University of Freiburg, Germany

April 22 and 24, 1924

SUBJECT: "The Reticulo-endothelial System"
"The Pathogenesis of Tuberculosis of the Lungs"

PROFESSOR FRIEDRICH von MULLER, Professor of Internal and Clinical Medicine, University of Munich, Germany

October 1 and 2, 1926

SUBJECT: "The Nervous System and Internal Medicine"

DR. ALEXIS CARREL, Member, The Rockefeller Institute for Medical Research

March 14, 1929

SUBJECT: "The Nature of Malignant Cells"

DR. G. V. ANREP, Lecturer in Physiology, Cambridge, England

September 16 and 17, 1929

SUBJECT: "The Dynamics of the Coronary Circulation"
"The Regulation of the Coronary Circulation"

SIR THOMAS LEWIS, Physician of the University College Hospital, London

October 24, 1931

SUBJECT: "Ischemic Paralysis"

PROFESSOR DOCTOR LUDWIG PICK, Honorary Professor of Pathological Anatomy at the University of Berlin, Germany

April 18 and 25, 1932

SUBJECT: "Clinical Aspects and Pathological Anatomy of Diseases of Lipoid Metabolism"
"Aseptic Bone Necrosis and Its Role in Clinical Surgery"

DR. G. V. ANREP, Head of the Department of Physiology, Cairo University, Egypt

March 25 and 26, 1935
SUBJECT: "The Duodeno-Pyloric Mechanism in Relation to the Sympathetic Nervous System"
"The Coronary Blood Flow in Relation to Pulse Pressure"

LORD THOMAS JEEVES HORDER, Senior Physician to Saint Bartholomew's Hospital, London
May 15, 1936
SUBJECT: "Direct Action in Medicine"

PROFESSOR EINAR HAMMARSTEIN, Professor of Chemistry at The Carolingian Medical University, Stockholm, Sweden
May 24 and 26, 1938
SUBJECT: "Duodenum and Its Associates, the Important Hormonal Centrum"
"Cell Structure: Functions of Nucleic Acid"

DR. MAX BERGMANN, Member, The Rockefeller Institute for Medical Research, New York City
May 16, 1939
SUBJECT: "Some Biological Aspects of Protein Chemistry"

DR. IRVINE H. PAGE, Director, Lilly Laboratory for Clinical Research, Indianapolis City Hospital, Indianapolis, Indiana
January 10, 1941
SUBJECT: "The Nature of Experimental and Clinical Hypertension"

DR. WILLIAM B. CASTLE, Professor of Medicine, Harvard University Medical School
January 24, 1941
SUBJECT: "Hemolytic Anemias"

DR. MICHAEL HEIDELBERGER, Associate Professor of Biochemistry, College of Physicians and Surgeons, Columbia University
April 7 and 10, 1942
SUBJECT: "Newer Concepts of Infection and Immunity, and Chemistry's Part in Their Development"

DR. OTTO LOEWI, Research Professor of Pharmacology, New York University College of Medicine
November 13 and 15, 1944
SUBJECT: "Aspects of the Transmission of the Nervous Impulse"
Lecture 1—"Mediation in the Peripheral and Central Nervous System"
Lecture 2—"Theoretical and Clinical Implications"

DR. HENRIK DAM, D.Sc., Associate Member, The Rockefeller Institute for Medical Research
October 30 and 31, 1945
SUBJECT: "Medical Aspects of Vitamin K"
"Some Effects of Vitamin E Deficiency and Fatty Acids"

DR. CORNELIUS P. RHOADS, Director, The Sloan-Kettering Institute for Cancer Research, New York, N. Y.
October 2, 1946
SUBJECT: "The Therapeutic Application of Substances Investigated in Connection with Chemical Warfare"

DR. JEAN OLIVER, Professor of Pathology, Long Island College of Medicine
April 13, 1948
SUBJECT: "The Structure of the Metabolic Process in the Nephron"

DR. EMANUEL B. SCHOENBACH, Associate Professor of Preventive Medicine and Assistant Professor in Medicine, The Johns Hopkins University School of Medicine
April 11, 1949
SUBJECT: "The Newer Antibiotics: Polymyxin, Chloromycetin and Aureomycin"

DR. JOSEPH L. LILIENTHAL, JR., Associate Professor of Medicine, The Johns Hopkins University School of Medicine
April 13, 1950
SUBJECT: "The Role of the Neuromuscular Unit in Internal Medicine"

DR. HARRY S. N. GREENE, Anthony N. Brady Professor of Pathology, Yale University School of Medicine
March 27, 1951
SUBJECT: "The Significance of the Heterotransplantability of Human Cancer"

DR. SIDNEY FARBER, Professor of Pathology, Harvard Medical School at the Children's Hospital
March 31, 1952
SUBJECT: "Current Research in the Chemotherapy of Cancer"

Departmental Conferences, Rounds, Seminars, etc.

The following list of conferences, herewith appended, is typical of those held at the Mount Sinai Hospital each month throughout the years. The Hospital contributes to the education of the medical community by welcoming outside physicians to most of its clinical conferences and rounds.

Perhaps best attended are the Clinical Pathological Conferences on Wednesday afternoons, at 3:30 P.M., and the Medical Grand Rounds on Friday afternoons, at 3:00 P.M.

Once a month, during the academic year, all of the services participate in a General Clinical Conference. In recent years these Clinical Conferences have been arranged in the form of a Symposium on a different subject for each Conference, and have sustained the interest of a large attendance.

DEPARTMENTAL CONFERENCES, ROUNDS AND LECTURES IN APRIL, 1951

Department	*Date*	*Time*	*Place*
Neuropathological Demonstrations *	Mon. April 2	10:30 a.m.	Neuropath. Lab.
Eye Clinic and Rounds *	Mon. April 2	3:30 p.m.	Attendings Rm.
Anesthesia Seminar *	Mon. April 2	6:00 p.m.	Diet. Lect. Rm.
Orthopedic Clinical Conf.**	Mon. April 2	8:30 p.m.	Lecture Rm. 3-B
Orthopedic Clinical Conf.*	Mon. April 2	8:45 p.m.	Clin. Amph.
Orthopedic Grand Rds.*	Tues. April 3	8:30 a.m.	Ward X
Dr. Oppenheimer's Urol. Grd. Rds.*	Tues. April 3	9:10 a.m.	Clin. Amph.
Diabetic Conf.*	Tues. April 3	9:15 a.m.	Diabetic Clinic
Pediatric X-Ray Conf.*	Tues. April 3	9:30 a.m.	Auditorium
Congenital Heart Conf.*	Tues. April 3	1:00 p.m.	Auditorium
Cardiology Conf.*	Tues. April 3	2:00 p.m.	Auditorium
Intra-Dept. Cardiology Conf.*	Tues. April 3	3:45 p.m.	Auditorium
Medical Conf.*	Tues. April 3	8:30 p.m.	Lecture Rm. 3-B
Psychiatry & Neurology Conf.*	Tues. April 3	8:30 p.m.	Auditorium
Dr. Colp's Surg. Grand Rds.*	Wed. April 4	9:15 a.m.	Clin. Amph.

* Open to the medical profession

Department	*Date*	*Time*	*Place*
Pediatric Grd. Rds.*	Wed. April 4	9:30 a.m.	Diet. Lect. Rm.
Clinical Pathological Conf.*	Wed. April 4	3:30 p.m.	Auditorium
WELCH LECTURE by DR. C. H. H. LONG *	Wed. April 4	8:30 p.m.	Auditorium
Dr. Touroff's Surg. Grd. Rds.*	Thur. April 5	9:00 a.m.	Wards R-S
Dr. Garlock's Surg. Grd. Rds.*	Thur. April 5	9:00 p.m.	Ward T
Pediatric Conf.*	Thur. April 5	9:30 a.m.	Auditorium
Medical & Surg. Thoracic Conf.*	Thur. April 5	10:00 a.m.	Clin. Amph.
Medical X-Ray Conf.*	Thur. April 5	2:00 p.m.	Auditorium
Anesthesia Conf.*	Thur. April 5	8:00 p.m.	Diet. Lect. Rm.
First District Dental Society *	Thur. April 5	8:00 p.m.	Lecture Rm. 3-B
Orthopedic Grd. Rds.*	Fri. April 6	8:30 a.m.	Ward X
X-Ray Neurological Conf.*	Fri. April 6	1:00 p.m.	Auditorium
Neurological Grd. Rds.*	Fri. April 6	2:30 p.m.	Diet. Lect. Rm.
Medical Grand Rounds *	Fri. April 6	3:00 p.m.	Auditorium
Oral Surg. Path. Conf.*	Fri. April 6	4:45 p.m.	Clin. Amph.
Civil Defense Lecture *	Fri. April 6	8:00 p.m.	Lecture Rm. 3-B
Neuropathological Demonstrations *	Mon. April 9	10:30 a.m.	Neuropath. Lab.
First District Dental Society *	Mon. April 9	8:00 p.m.	Clin. Amph.
Otolaryngology Conf.*	Mon. April 9	8:30 p.m.	Diet. Lect. Rm.
Orthopedic Grand Rounds *	Tues. April 10	8:30 a.m.	Ward X
Dr. Oppenheimer's Urol. Grd. Rds.*	Tues. April 10	9:10 a.m.	Clin. Amph.
Diabetic Conf.*	Tues. April 10	9:15 a.m.	Diabetic Clinic
Intra-Dept. Cardiology Conf.*	Tues. April 10	3:45 p.m.	Auditorium
Gastroenterology Conf.*	Tues. April 10	8:30 p.m.	Lecture Rm. 3-B
Urological Seminar *	Tues. April 10	8:30 p.m.	Clin. Amph.
Dr. Colp's Surg. Grd. Rds.*	Wed. April 11	9:15 a.m.	Clin. Amph.
Pediatric Grd. Rds.*	Wed. April 11	9:30 a.m.	Diet. Lect. Rm.
Clinical Pathological Conf.*	Wed. April 11	3:30 p.m.	Auditorium
Dental Conf.*	Wed. April 11	8:30 p.m.	Lecture Rm. 3-B
Arthritis Group	Wed. April 11	9:00 p.m.	Commit. Rm. A
Dr. Touroff's Surg. Grd. Rds.*	Thur. April 12	9:00 a.m.	Wards R-S
Dr. Garlock's Surg. Grd. Rds.*	Thur. April 12	9:00 a.m.	Ward T
Pediatric Conf.*	Thur. April 12	10:00 a.m.	Clin. Amph.
Medical & Surg. Thoracic Conf.*	Thur. April 12	10:00 a.m.	Clin. Amph.
Medical X-Ray Conf.*	Thur. April 12	2:00 p.m.	Auditorium
Eye Clinic and Rds.*	Thur. April 12	3:30 p.m.	Attending Rm.
House Staff: C.P.C.*	Thur. April 12	6:30 p.m.	Lecture Rm. 3-B
Ophthalmology Conf.*	Thur. April 12	8:30 p.m.	Lecture Rm. 3-B
Medical OPD Journal Club *	Thur. April 12	8:30 p.m.	Diet. Lect. Rm.
Orthopedic Grd. Rds.*	Fri. April 13	8:30 a.m.	Ward X
X-Ray Neurological Conf.*	Fri. April 13	1:00 p.m.	Auditorium
Neurological Grd. Rds.*	Fri. April 13	2:30 p.m.	Diet. Lect. Rm.
Medical Grand Rds.*	Fri. April 13	3:00 p.m.	Auditorium
Oral Surg. Path. Conf.*	Fri. April 13	4:45 p.m.	Lecture Rm. 3-B
Seminar Physiological Chem.*	Fri. April 13	8:30 p.m.	Lecture Rm. 3-B
Civil Defense Lect.*	Fri. April 13	8:00 p.m.	Clin. Amph.
Neuropathological Demonstrations *	Mon. April 16	10:30 a.m.	Neuropath. Lab.
Eye Clinic and Rds. *	Mon. April 16	3:30 p.m.	Attending Rm.

* Open to the medical profession

Department	*Date*	*Time*	*Place*
Anesthesia Seminar *	Mon. April 16	6:00 p.m.	Lecture Rm. 3-B
First District Dental Society *	Mon. April 16	8:00 p.m.	Lecture Rm. 3-B
General Research Group *	Mon. April 16	4:00 p.m.	Auditorium
CLIN. CONF. LYMPHOMAS *	Mon. April 16	8:30 p.m.	Auditorium
Orthopedic Grand Rds.*	Tues. April 17	8:30 a.m.	Ward X
Dr. Oppenheimer's Urol. Grd. Rds.*	Tues. April 17	9:10 a.m.	Clin. Amph.
Diabetic Conf.*	Tues. April 17	9:15 a.m.	Diabetic Clinic
Pediatric X-Ray Conf.*	Tues. April 17	9:30 a.m.	Auditorium
Congenital Heart Conf.*	Tues. April 17	1:00 p.m.	Auditorium
Cardiology Conf.*	Tues. April 17	2:00 p.m.	Auditorium
Intra-Dept. Cardiology Conf.*	Tues. April 17	3:45 p.m.	Auditorium
Gastroenterology Research Conf.	Tues. April 17	8:30 p.m.	Lecture Rm. 3-B
Dr. Colp's Grd. Rds.*	Wed. April 18	8:15 a.m.	Clin. Amph.
Pediatric Grand Rds.*	Wed. April 18	10:00 a.m.	Diet. Lect. Rm.
Clinical Pathological Conf.*	Wed. April 18	3:30 p.m.	Auditorium
Hematology Staff Conf.*	Wed. April 18	8:30 p.m.	Lecture Rm. 3-B
Dr. Touroff's Surg. Grd. Rds.*	Thur. April 19	9:00 a.m.	Wards R-S
Dr. Garlock's Surg. Grd. Rds.*	Thur. April 19	9:00 a.m.	Ward T
Pediatric Conf.*	Thur. April 19	9:30 a.m.	Auditorium
Med. & Surg. Thoracic Conf.*	Thur. April 19	10:00 a.m.	Clin. Amph.
Medical X-Ray Conf.*	Thur. April 19	2:00 p.m.	Auditorium
Tumor Clinic Conf.*	Thur. April 19	3:15 p.m.	Auditorium
Anesthesia Conf.*	Thur. April 19	8:00 p.m.	Diet. Lect. Rm.
Orthopedic Grd. Rds.*	Fri. April 20	8:30 a.m.	Ward X
X-Ray Neurological Conf.*	Fri. April 20	1:00 p.m.	Auditorium
Neurological Grd. Rds.*	Fri. April 20	2:30 p.m.	Diet. Lect. Rm.
Medical Grd. Rds.*	Fri. April 20	3:00 p.m.	Auditorium
Oral Surg. Path. Conf.*	Fri. April 20	4:45 p.m.	Clin. Amph.
Neuropathological Demonstrations *	Mon. April 23	10:30 a.m.	Neuropath. Lab.
Anesthesia Seminar *	Mon. April 23	6:00 p.m.	Diet. Lect. Rm.
First Dist. Dental Soc.*	Mon. April 23	8:00 p.m.	Lecture Rm. 3-B
Orthopedic Grd. Rds.*	Tues. April 24	8:30 a.m.	Ward X
Dr. Oppenheimer's Urol. Grd. Rds.*	Tues. April 24	9:10 a.m.	Clin. Amph.
Diabetes Conf.*	Tues. April 24	9:15 a.m.	Diabetic Clinic
Pediatric X-Ray Conf.*	Tues. April 24	9:30 a.m.	Auditorium
Intra-Dept. Cardiology Conf.*	Tues. April 24	3:45 p.m.	Auditorium
Surgical Mortality Conf.	Tues. April 24	5:00 p.m.	Lecture Rm. 3-B
Peripheral Vascular Dis. Conf.*	Tues. April 24	8:30 p.m.	Lecture Rm. 3-B
FRIESNER LECTURE by DR. LEMPERT *	Tues. April 24	8:30 p.m.	Auditorium
Combined Allergy Conf.*	Tues. April 24	8:30 p.m.	Diet. Lect. Rm.
Dr. Colp's Surg. Grd. Rds.*	Wed. April 25	9:15 a.m.	Clin. Amph.
Pediatric Grd. Rds.*	Wed. April 25	9:30 a.m.	Diet. Lect. Rm.
Clin. Pathological Conf.*	Wed. April 25	3:30 p.m.	Auditorium
Dermatology Conf.*	Wed. April 25	7:30 p.m.	Auditorium
Gynecology Conf.*	Wed. April 25	8:00 p.m.	Lecture Rm. 3-B
Orthopedic Literature Grp.*	Wed. April 25	8:30 p.m.	Diet. Lect. Rm.
Arthritis Group	Wed. April 25	9:00 p.m.	Commit. Rm. A
Dr. Touroff's Surg. Grd. Rds.*	Thur. April 26	9:00 a.m.	Wards R-S

* Open to the medical profession

Department	*Date*	*Time*	*Place*
Dr. Garlock's Surg. Grd. Rds.*	Thur. April 26	9:00 a.m.	Ward T
Pediatric Conf.*	Thur. April 26	9:30 a.m.	Auditorium
Med & Surg. Thoracic Conf.*	Thur. April 26	10:00 a.m.	Clin. Amph.
Medical X-Ray Conf.*	Thur. April 26	2:00 p.m.	Auditorium
Eye Clinic and Rds.*	Thur. April 26	3:30 p.m.	Attending Rm.
House Staff: C.P.C.*	Thur. April 26	6:30 p.m.	Lecture Rm. 3-B
SCHICK LECTURE by DR. HOLT, JR.*	Thur. April 26	8:30 p.m.	Auditorium
Orthopedic Grd. Rds.*	Fri. April 27	8:30 a.m.	Ward X
X-Ray Neurological Conf.*	Fri. April 27	1:00 p.m.	Auditorium
Neurological Grd. Rds.*	Fri. April 27	2:30 p.m.	Diet. Lect. Rm.
Medical Grd. Rds.*	Fri. April 27	3:00 p.m.	Auditorium
Oral Surg.-Path. Conf.*	Fri. April 27	4:45 p.m.	Lecture Rm. 3-B

* Open to the medical profession

Legacies and Bequests

1854	
Judah Touro	$20,000.00
1867–1869	
Jacob Abrahams	5,000.00
Benjamin Nathan	10,000.00
Joseph Fatman	10,000.00
1872–1879	
Dr. S. Abrahams (1872–1873)	14,020.00
Lewis Philips	11,711.51
Michael Reese	25,000.00
1882–1889	
Simeon Abrahams	10,980.00
Mrs. Judith Einstein	5,000.00
Julius Hallgarten	10,000.00
Miss Sarah Burr (1886–1893)	54,900.00
Isaac Hoechster	5,000.00
Henry Herrman	5,000.00
William Meyer (1889–1891)	12,252.34
1891–1897	
Daniel B. Fayerweather (1891–1897)	9,933.03
Joseph Rosenberg (1893–1926)	9,995.54
Abraham Kuhn	5,000.00
Adolph Bernheimer	5,000.00
Mayer Lehman	17,958.00
1902–1904	
Andrew J. Garvey (1902–1949)	16,148.33
Jacob F. Cullman	10,000.00
Julius Beer	10,000.00
Adolph Openhym	5,000.00
Solomon Loeb	10,000.00
1905–1908	
Simon Rothschild	$50,000.00
Salomon Rothfeld	5,000.00
Meyer Guggenheim	20,000.00
Frederick Uhlmann	5,000.00
Mathilde C. Weil (1906–1907)	12,144.99
Emanuel Walter	7,500.00
Marx W. Mendel	16,044.10
Amelia B. Lazarus (1908–1909)	29,995.76
1910–1914	
Adolph Kerbs	5,000.00
Emanuel Einstein	9,525.00
Charles Rubens	5,695.00
Ludwig Stettheimer (1910–1913)	24,748.39
Rosa Schreiber	6,267.74
Margaret J. P. Graves	10,000.00
John Stemme	5,000.00
Charles E. Tilford (1911–1945)	152,513.38
Martin Herman	5,000.00
Jacob Small (1912–1929)	14,864.30
Andrew Saks	5,000.00
Moses Weinman	5,000.00
Samuel Lilienthal	14,762.08
John J. Clancy (1913–1914)	25,000.00
Ernst Thalmann	10,000.00
Benjamin Guggenheim	10,000.00
William Scholle	10,000.00
Nathan Hermann	5,000.00
Lewis S. Levy (1914–1916)	16,343.74

1915–1919	
Constant Mayer	$13,948.09
David E. Sicher	10,000.00
Jacob Langeloth	5,000.00
Moses Lowenstein	5,000.00
Andrew Freedman	5,000.00
Solomon Wolf (1916–1917)	11,860.18
Amelia Lavanburg (1916–1917)	10,175.84
Emil Bondy	10,000.00
Herman N. Walter	5,000.00
J. S. Halle	5,000.00
Rachel H. Pfeiffer	15,000.00
Esther Schlesinger (1915–1951)	22,912.42
Meyer H. Lehman	25,000.00
Kalman Haas	10,000.00
Benjamin Blumenthal	15,000.00
Henry J. Duveen	5,000.00
Margaret Olivia Sage (1919–1921)	100,000.00
1920–1924	
Joseph Frank	447,374.70
Pearl Weinman	7,065.85
Isaac N. Seligman	5,000.00
Babette Lehman	5,000.00
Julius Kayser	10,000.00
Baruch Kaufman	14,250.00
William Salomon	10,000.00
Adolph D. Bendheim	5,000.00
Mary Helen Finch	5,000.00
Julia Seligman (1922–1936)	12,682.29
Morris S. Barnet	35,000.00
Eleanor von Koppenfels	25,000.00
Jacob Rossbach	5,000.00
1925–1929	
Eugene Meyer	10,000.00
Emily A. Watson	24,998.20
Emanuel Spiegelberg	5,000.00
Michael Dreicer	10,000.00
Emil Wolff	29,794.12
Adolph Boskowitz	20,000.00
Solomon A. Fatman	20,000.00
Jonathan Nathan (1926–1933)	5,130.89
Louis S. Stroock	$5,000.00
Albert Lorsch	5,000.00
Harriet Weil	5,000.00
Morris J. Hirsch	5,000.00
Lewis Schoolhouse	5,000.00
Alexander Herman (1927–1928)	100,000.00
Lottie Estelle Mayer (1927–1928)	33,461.87
Sophie W. Low (1927–1944)	13,057.47
Charles Altschul	7,500.00
Mortimer H. Heyman	5,000.00
Morris Weinstein	5,000.00
Harry Mayer	5,000.00
Al Hayman	25,000.00
Aline Myers	15,027.87
Morris Rossin	10,000.00
Isaac J. Bernheim	5,000.00
Marmaduke Richardson	5,000.00
Simon R. Weil (1929–1934)	156,468.28
Michael P. Rich	20,000.00
Emma Blumenberg, *in memory of her brothers,* Marc A. *and* Louis Blumenberg (1929–1930)	12,473.66
Harriet F. Haas	10,000.00
Harmon W. Hendricks	10,000.00
1930–1934	
Harry H. Meyer (1930–1950)	560,038.05
Betsy S. Korminsky	5,000.00
Pauline Myers	5,000.00
Louis C. Raegner	5,000.00
Julius Marcus	19,185.83
Louis Marshall (1931–1943)	11,754.24
William Hartfield (1931–1936)	10,061.59
Alfred M. Heinsheimer	5,000.00
Frieda Wimpfheimer	5,000.00
Isaac Marx	7,500.00
Rudolph J. Schaefer (1934–1937)	64,845.88
Ludwig Dreyfuss	25,000.00

Benjamin Stern (1934–1937)	$25,000.00
1935–1938	
Bertha Weinman, *for the* Moses Weinman Memorial Fund (1935–1951)	1,490,050.17
Joseph Runsheim (1935–1937)	17,872.25
Lawrence Pike (1935–1951)	8,871.75
Edward J. King, *for the* Edward J. King and Jennie I. King Memorial Fund (1936–1951)	1,749,506.90
Augustus W. Openhym (1936–1951)	139,091.26
Isa Nordlinger (1936–1937)	9,199.21
Marco Fleishman, *for the* Rosetta and Marco Fleishman Memorial Fund (1937–1949)	748,764.64
Carrie L. Lehman	10,000.00
Henry Ollesheimer (1937–1945)	10,848.16
Leah Simpson (1937–1950)	5,211.33
Ephraim B. Levy	5,000.00
Henry W. Putnam	50,000.00
Bettie Meierhoff (1938–1950)	75,613.85
Harry J. D. Plaut	5,107.50
Charles S. Erlanger	5,000.00
1940–1944	
James Ulmann (1940–1951)	96,402.77
Amalia F. Morse	15,000.00
Ida Meyer (1940–1944)	14,987.73
Fannie H. Cox	9,377.34
Frederick Keim	5,000.00
David Schoenfeld	5,000.00
Frank Wallach (1942–1950)	5,875.39
Samuel M. Fechheimer (1943–1947)	$10,023.44
Lillie Guinzburg, *in memory of* Henry A. Guinzburg	5,000.00
Edward Rubin	5,000.00
Elsa B. Jacob (1944–1946)	12,047.92
1945–1950	
Max Horwitz, *in memory of* Hugo Blumenthal	5,000.00
Henry M. Flateau	5,000.00
Julius Rudisch (1946–1950)	40,952.49
M. Warley Platzek (1946–1949)	21,536.06
Albert Bendheim (1946–1951)	13,568.61
Henry L. Blum	10,000.00
Samuel Shrier	2,500.00
Carrie Kohn (1946–1951)	3,913.56
United Hospital Fund, *representing a part of the Estate of* Carrie von Bernuth Foot (1947–1950)	18,159.53
William Oppenhym	8,102.21
Bertha Rosenheim	5,000.00
Melville Foreman Sachs	5,000.00
Alexander Schute	4,000.00
Sophie Bantin	3,338.60
Magdalene M. Klingenstein, *for* Maternity Pavilion (1948–1951)	1,890,265.24
Frances C. Kahn, *in memory of* Annie H. Kahn, Fred Hirschhorn and Charles Hirshon (1948–1949)	54,582.43
David E. Oppenheimer	5,000.00
Hattie J. Danziger, *in memory of* Hattie J.	

Danziger, Henry Danziger and Henry H. Jacobson	$3,500.00
Rose Frankenheimer	2,500.00
William Nelson Cromwell, *in memory of* Alfred Jaretzki (1949–1951)	270,400.00
Albert Erdman	14,918.56
Frederick Nathan (1949–1951)	9,917.51
Edward Bromberg	4,000.00
Jessie F. Zimmern	2,500.00
Jacob Strauss	2,500.00
Paul Gumbiner	4,054.25
Max Epstein	2,500.00
Charles A. Riegelman	2,500.00
1951	
Lena S. Bayer, *in memory of* Stephen D. and Lena S. Bayer	60,000.00
Lena S. Bayer	20,000.00
Esther G. Friedenheit, *in memory of* Esther G., Isaac and Myron Goldsmith Friedenheit	$10,000.00
Max Gluck	6,616.01
Elsa J. Brill, *in memory of* Dr. Nathan E. Brill	5,000.00
Laurence Davies, *in memory of* Andrew M. Davies	5,000.00
Laurence Davies, *in memory of* Clara M. Davies	5,000.00
Abram A. Weigert, *in memory of* Aaron, Anna, Morris and Ray Weigert, Anne Charig and Millie Davis	5,000.00
Henry M. Goldfagle	1,151.50
Eugene J. Goldsmith	1,000.00
Richard L. Leo	1,000.00
Gustav Daskal	299.87
Simon Badt	200.00

ENDOWMENTS FOR SPECIAL PURPOSES

Sara Welt Memorial Fund — $933,000.00

Established by Dr. Sara Welt (Kakels); income to be used for the Sara Welt Clinic for Healthy Infants, the Sara Welt Fellowships in Research Medicine, and for other purposes as provided in her will.

Mr. and Mrs. Charles Klingenstein Fund — 177,000.00

Established by Mr. and Mrs. Charles Klingenstein; income to be used for non-budgetary purposes as determined annually by the Board of Trustees.

Emilie Voorzanger Fund — 149,000.00

Established by provision in the will of Emilie Voorzanger; income (and capital if advisable) to be used either for the benefit of crippled children or for medical research or for both purposes as determined by the Board of Trustees.

Benjamin Altman Fund $100,000.00
Established by provision in the will of Benjamin Altman; one-half of the income to be utilized to defray expenses of the Neurological Department, the remainder for the general purposes of the institution.

Marjorie Walter Goodhart and Florence Henrietta Walter Children's Clinic Endowment 100,000.00
Founded by their parents, Florence B. and William I. Walter, income to be used for the purposes of Children's Clinic.

Marjorie Walter Goodhart and Florence Henrietta Walter Memorial Fund 25,000.00
Established by provision in the will of Miss Rosie Bernheimer; income to be applied towards the running expenses of the Children's Clinic.

Babette Lehman Fund 100,000.00
Founded by Mrs. Babette Lehman; income to be utilized for the advancement of preventive medicine.

Louis W. Neustadter Fund 100,000.00
Founded by provision in the will of Mrs. Henry Neustadter; distribution of income to be made annually on the 16th day of March, a portion to needy and indigent patients in the Hospital on that date, the remainder for the general purposes of the Hospital.

The Mount Sinai Hospital Fund for Medical Education 100,000.00
Joseph F. and Zillah Cullman contributed $25,000.00 as a nucleus of said fund; $25,000.00 was contributed by the estate of Henry P. Goldschmidt, and $50,000.00 was contributed by the estate of Joseph F. Cullman; the income to be used to defray expenses arising out of clinical lectures, demonstrations, and conferences, and for cognate purposes.

Josephine Home Fund 66,000.00
Established by Josephine Home, Inc., income to be used for the establishment and maintenance of the Children's Guidance Clinic.

Philip J. Goodhart Fellowship Fund 55,000.00
Established by provision in the will of Hattie Lehman Goodhart $25,000.00, by the executors of the estate of Philip J. Goodhart $25,000.00 and by the Board of Trustees $5,000.00; income to be used for fellowships.

Dr. Isador Abrahamson Neurological Fund $50,000.00
Established by provision in the will of Stella Heidelberg Abrahamson; the income from this fund to be used for fellowships for research work and study in the field of neurology and psychiatry.

George Blumenthal, Jr., Fellowship Fund 50,000.00
Founded by Mrs. Florence Blumenthal; income to be applied to the maintenance of two fellowships in pathology.

Alfred A. and Ruth M. Cook Fund 50,000.00
Founded by Alfred A. and Ruth M. Cook; income to be applied to special experimental work in the Social Service Department.

Florette and Ernst Rosenfeld Foundation 50,000.00
Founded by Florette and Ernst Rosenfeld; for the establishment and special support of a Department of Radium and Radiotherapy.

Maurice Wertheim Memorial Fund 50,000.00
Established by his partners and a former partner in Wertheim and Company.

Maurice Wertheim Fund 50,000.00
Established by provision in the will of Maurice Wertheim; income to be used and distributed in such manner as determined by the Board of Trustees.

Eugene A. Hellman Fund 41,000.00
Established by provision in the will of Eugene A. Hellman; one-half of the income to be used for the investigation and study of cancer and for the care of cancer patients; the remainder to be used for the investigation of cardiac complaints and for the care of cardiac patients.

Dr. Eli Moschcowitz Fund 36,000.00
Established by his friends and associates; income to be used for the support of non-budgetary education and research projects and particularly those in which Dr. Moschcowitz has been interested during his professional association with the Hospital.

Etta C. Lorsch Memorial Fund 34,370.00
Established by provision in the will of Etta C. Lorsch, $10,000.00; by members of the Board of the Social Service Auxiliary, $10,000.00; and by many of her friends, $4,370.00; the sum of $10,000.00 was added by provision in the will of William N. Cohen; income to be disbursed by the Social Service Auxiliary for the special country care of children.

Minnie Kastor Memorial Fund $30,000.00
Founded by Alfred B. Kastor as a tribute to the memory of his parents; income to be used for psychiatric work through the service of a Fellow in psychiatry.

Charles Klingenstein Fellowship Fund 25,000.00
Established by Mrs. Charles Klingenstein; income to be used for fellowship in any clinical or laboratory department of the Hospital, as determined by the Board of Trustees.

Stanley D. Kops Memorial Fellowship Fund 25,000.00
Established by the Kops family; income to be used for a fellowship in any hospital field of activity as selected by the Board of Trustees.

Moritz Rosenthal Fellowship Fund 25,000.00
Established by provision in the will of Moritz Rosenthal; income to be used for medical, surgical, clinical, or laboratory fellowships as granted to men selected by the Board of Trustees.

Harriet Meyer Memorial Fund 25,000.00
Founded by Eugene Meyer; income to be used for experimental work in the Social Service Department.

Alice Goldschmidt Sachs Endowment Fund 25,000.00
Established by provision in the will of Alice Goldschmidt Sachs; income to be used for medical education.

Ambulance Fund 20,000.00
Established by Murry Guggenheim; income to be applied toward the maintenance of the ambulance service.

Emanuel Van Raalte Endowment Fund for Medical Education 20,000.00
Legacy; income to be used for medical education.

Moritz Warburg Social Service Fund 20,000.00
Founded by Felix M. and Paul M. Warburg; income to be applied to the work of the Social Service Department.

Robert and John Kaufmann Vacation Fund 11,000.00
Founded by Max Kaufmann; income to be used for providing vacations, preferably for crippled children.

Theodor Escherich Fellowship Fund $10,000.00
Founded by Edward S. Steinam; income to be applied to the maintenance of a fellowship in pathology.

Moses Heineman Fellowship Fund 10,000.00
Founded by Moses Heineman; income to be applied to the maintenance of a fellowship in pathology.

Eugene Meyer, Jr., Fellowship Fund 10,000.00
Founded by Eugene Meyer, Jr., income to be applied to the maintenance of a fellowship in pathology.

Dr. Henry Koplik Fund 10,000.00
Established by provision in the will of Dr. Henry Koplik; income to be disbursed by the Social Service Department and devoted solely to the care of infants and children whose parents are unable to pay ward fees.

Emil Wolff Social Service Fund 10,000.00
Established by Emil Wolff; income to be applied to the work of the Social Service Department.

Edward Gamaliel Janeway Lecture Fund 10,000.00
Founded by Mr. and Mrs. Edward S. Steinam; income to be utilized to bring important investigators to The Mount Sinai Hospital to present the results of their work.

James Joseph Speyer Fund 10,000.00
Established by provision in the will of James Joseph Speyer; income to be used for assisting sick nurses employed at the Hospital.

William Henry Welch Lecture Fund 10,000.00
Established by Dr. Emanuel Libman; income to be used to provide lectures to be named after Dr. William Henry Welch of Johns Hopkins University.

Dr. Murray H. Bass Fund 9,200.00
Established by his friends and associates; income to be used for non-budgetary educational and research projects of the Pediatric Service.

Library Funds 7,200.00
Dr. Abraham Jacobi Library Fund of $5,000.00 established by the Board of Trustees to commemorate the eightieth birthday of Dr. Abraham Jacobi; income to be applied to the purchase of books for the Hospital Library. Dr. Fred S. Mandelbaum Memorial Fund of $2,200.00 contributed by many of his friends; income

to be applied to the purchase of books for the Hospital Library

The Mount Sinai Hospital Alumni Fund $7,000.00
Donation of Dr. H. F. L. Ziegel; income, and, if necessary, capital, to be expended in defraying part or all of the cost of Private Pavilion rooms for members of the Associate Alumni of The Mount Sinai Hospital; the expenditures for any one case not to exceed $200.00

Charles and Camilla Altschul Fund for Nursing in Wards 5,000.00
Founded by Charles and Camilla Altschul; to defray the expense of special nursing in the wards.

Isaac C. Bishop Fund 5,000.00
Established by provision in the will of Morris Bishop; income to be used for the relief, care, and benefit of poor patients suffering from cancer.

Fannie C. Korn Fund 5,000.00
Founded by Mrs. Fannie C. Korn, in memory of Henry Korn; for establishing and maintaining a splint and apparatus room for the Orthopedic Service.

Dr. Bela Schick Lectureship Fund 4,200.00
Established by his associates and friends; income to be used for an annual lecture on pediatrics.

Dr. Isidore Friesner Lecture Fund 3,000.00
Established by his friends; principal and income to be used to bring lecturers to the Hospital, preferably in the field of otology.

Morris Littman Social Service Fund 3,000.00
Established by provision in the will of Morris Littman; income to be applied to the work of the Social Service Department.

Dr. S. S. Goldwater Fellowship Fund 2,100.00
Established by provision in the will of Dr. S. S. Goldwater and by his friends for support of a Fellowship in Hospital Administration.

MEDICAL RESEARCH FUNDS

Pauline O. Stern Research Fund $456,000.00
Established by provision in the will of Pauline O. Stern; income (and capital if necessary) to be used for research in diseases of the nervous system and research in other diseases as approved by the Board of Trustees.

Abraham and Amelia Meyers Memorial Fund $227,000.00
Established by provision in the will of Amelia Meyers; income to be used in the furtherance of medical and scientific research.

Etta C. and Arthur Lorsch Fund 204,000.00
$10,000.00 contributed by Etta C. and Arthur Lorsch during their lifetimes. A legacy of $194,000.00 from the estate of Arthur Lorsch was added. Income to be devoted to laboratory research work.

Samuel M. Fechheimer Foundation for Medical Research 156,000.00
Established by provision in the will of Samuel M. Fechheimer; income (and capital if necessary) to be used for medical research and education.

S. S. Prince Research Fund 100,000.00
Established by provision in the will of S. S. Prince; income to be used for research work.

Henry and Emma Rosenwald Foundation 100,000.00
Established by provision in the will of Mrs. Emma Rosenwald; income to be used for research work. If such work becomes impracticable or inadvisable, the income is to be used for any other purpose designated by the Board of Trustees.

Frederick Housman Fund for Medical Research 75,000.00
Established by provision in the will of Frederick Housman; income to be used for medical research as determined by the Board of Trustees.

Kops Foundation for Pathological Research 75,000.00
Income to be used from time to time for special work in the Pathological Department, under the direction of the Board of Trustees; preference to be given to research.

Lorsch-Sachs Endowment Fund for the Promotion of Medical Research 60,000.00
Created by Josephine Lorsch, Nellie and Harry Sachs in memory of Albert Lorsch, Jenny and Sigmund Lorsch; income to be used for the study of some promising scientific problems, especially for research work bearing upon the origin and cure of cancer.

Joseph Schoenberg Fund 50,000.00
Created by, and under the will of, Commodore Louis D. Beaumont; income (and capital if necessary) to be used for medical research and other related research projects.

Max Nathan Laboratory Fund — $30,000.00
Established by his wife and daughters; income to be used primarily towards the payment of salaries in the Laboratory Research Department.

Dr. Richard Lewisohn Cancer Research Fund — 28,000.00
Representing the residue of funds collected by Dr. Richard Lewisohn for the maintenance of a Cancer Research Laboratory.

William N. Cohen Research Fund — 25,000.00
Established by provision in the will of William N. Cohen; income to be used for research work.

Eugene Littauer Research Fund — 25,000.00
Founded by Eugene Littauer in memory of Nathan Littauer; income to be used for medical research work.

Elias Asiel Research Fund — 21,000.00
Founded by Irma A. Bloomingdale and Nelson I. Asiel; income of which is to be applied to the payment of salaries or fellowships in the research work of the Pathological Department.

Jennie M. Breitenbach Fund — 20,000.00
Established by provision in the will of Jennie M. Breitenbach; income to be used for medical research.

Eugene Strauss Endowment Fund for Medical Research — 20,000.00
Established by provision in the will of Charles Strauss; income to be used for medical research.

Elsie and Walter W. Naumburg Fund — 17,300.00
Established by Mr. and Mrs. Walter W. Naumburg; income to be used exclusively for chemical research at The Mount Sinai Hospital.

Lester and Corinne Hofheimer Research Fund — 15,000.00
Established under the will of Lester Hofheimer; to be used for cancer or other research.

Morris J. and Carrie Hirsch Fund — 12,500.00
Established by Walter A. and Steven J. Hirsch in memory of their parents, $10,000.00; and donation $2,500.00, from Mr. and Mrs. Steven J. Hirsch in memory of Walter A. Hirsch; income to be devoted to work in connection with the study of cancer.

Rosie Bernheimer Memorial Fund — 10,000.00
Established by provision in the will of Miss Rosie Bernheimer; income to be used for clinical research work.

Morris Fatman Medical Research Fund Founded by Morris Fatman in memory of Solomon A. Fatman.	$10,000.00
Joel E. Hyams Fund Established by provision in the will of Rosalie Hyams; income to be devoted to research work in cancer.	10,000.00
Joseph and Rosa Liebmann Fund Established by Sadie Liebmann Steiner as a tribute to the memory of her parents; income to be used for medical research.	10.000.00
William J. H. Steiner Fund Founded by his father, Samuel S. Steiner; income to be used for medical research.	10,000.00
Virginia I. Stern Fund Legacy; income to be used for medical research work.	10,000.00
Herman Younker Fund for Clinical and Pathological Research Established by Mrs. Herman Younker; income to be used exclusively for clinical and pathological research.	10,000.00
Leo L. Doblin Endowment Fund for Research Work Legacy; income to be used solely for research work in the Pathological Laboratory.	10,000.00
Arthur E. Frank Medical Research Fund Established by provision in the will of, and in memory of, Arthur E. Frank; the income from this fund is to be devoted to laboratory research work, preferably in connection with the study and cure of cancer.	7,500.00
Florentine S. Sutro Research Fund Legacy; income to be used for research work.	5,000.00
Dr. Benjamin B. Eichner Eye Research Fund Established by provision in the will of Dr. Benjamin B. Eichner, in memory of his beloved parents, Joseph Herman Eichner and Hannah Eichner; principal and income to be used for research in eye pathology.	4,500.00
Dr. Louis Fischer Fund Established by provision in the will of Dr. Louis Fischer; principal and income to be used for research in pediatrics.	4,000.00
Total	$1,817,800.00

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