

**Planning and Construction Period  
of the School and Hospitals  
1921-1925**



*School of Medicine and Dentistry*

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*Strong Memorial Hospital*

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*Rochester Municipal Hospital*



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of the School and Hospitals  
1921-1925**



BY GEORGE H. WHIPPLE, M.D.

*School of Medicine and Dentistry  
Strong Memorial Hospital  
Rochester Municipal Hospital*

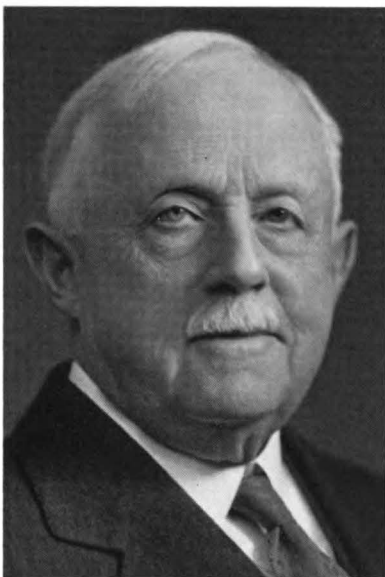
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**The University of Rochester**

*Rochester, New York*

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**RUSH RHEES**  
*President 1900-1935*



**GEORGE EASTMAN**  
*1854-1932*



**GEORGE H. WHIPPLE IN 1921**  
*Dean 1921-1953*



**NATHANIEL W. FAXON**  
*Director of the Hospital 1922-1935*

## Planning and Construction Period

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IT WAS early in the spring of 1921, when serving as Dean of the School of Medicine at the University of California, that I first had some correspondence with Dr. Rush Rhees, President of the University of Rochester, relative to a visit to Rochester, but found myself too busy to accept his invitation.

Later in the spring, President Rhees paid me a visit in San Francisco and presented in considerable detail the program for the development of a new School of Medicine as part of the University of Rochester. He impressed me as a man of broad vision with whom cooperative work would be pleasant and stimulating. What he told me about the plans and financial guarantees for the School led to my accepting promptly the appointment as Dean and Professor of Pathology with a conviction that the opportunity was unusual and exciting and gave great promise for future development.

Before proceeding further with the account of these early discussions, it may be appropriate to insert a few facts about myself. I was born in Ashland, a small town in central New Hampshire. Both my father and grandfather were general medical practitioners in Ashland and New London, New Hampshire. I attended grade school in Ashland, preparatory school at Phillips Andover and took my college work at Yale, where I was graduated in 1900. For a year after that I taught sciences and supervised athletics in the Holbrook Military Academy on the Hudson before entering Johns Hopkins University Medical School, from which I was graduated in 1905.

The year after graduation, I served as assistant in pathology at Johns Hopkins, remaining in the Department of Pathology until 1914 and holding appointments as instructor, resident and assistant professor under the great Dr. William H. Welch. In 1914 I accepted an appointment as Professor of Research Medicine and Director of the Hooper Foundation in the University of California Medical School in San Francisco, and in addition served as Dean of the Medical School in 1920-21.

The directorship of the Department of Research Medicine (Hooper

Foundation) gave me exceptional freedom for research in experimental biology, physiology and pathology and a relatively light load of routine. This happy situation was attractive enough to hold me in San Francisco when opportunities to head departments in large schools in the East came to me. During World War I, I did a good deal of teaching, especially in pathology, for army officers coming from large bases in the Bay area.

Student fellows were attracted to the department, in part through the interest and efforts of Dr. George W. Corner, then in the Department of Anatomy at Berkeley, who later became the first Professor of Anatomy at the University of Rochester School of Medicine and Dentistry. They took up their work after their first year in medicine and following a year in the Department of Research Medicine returned to their medical training. These fine students were a great asset to the laboratory and subsequently made their marks in medicine. During my last year in California, 1920-21, my experience as Dean of the University of California School of Medicine was of great value for the understanding of administrative work of this nature.

To return to my discussions with Dr. Rhees, he outlined the project for a new medical school at the University of Rochester as follows:

The history of the School of Medicine and Dentistry began sometime in 1920. It would be difficult to place the exact date of its conception; the first recorded event was the visit in that year of Abraham Flexner, of the General Education Board, who called on President Rhees to inquire whether George Eastman could be interested in founding a School of Medicine. Dr. Rhees replied that he would be glad to present Mr. Flexner to Mr. Eastman, but preferred that the former present his own plea. A meeting was consequently arranged and Mr. Flexner stated that the General Education Board felt that there was need of another first-class medical school to be located in Western New York where its work would not be complicated by any existing medical school; that it had been impressed by the scholarship of the University of Rochester and that it felt that this would be a good place for the school. The General Education Board offered to set aside \$3,000,000 for this purpose, provided a similar sum could be raised in Rochester. Mr. Eastman, with his usual thoroughness, investigated the plan, invited Mr. Flexner to return, and told him that he had become convinced that \$10,000,000 was necessary for the establishment of a school such as had been outlined; that he was prepared to give approximately \$4,000,000 and would guarantee the raising of another million, provided the General Education Board would appropriate \$5,000,000. This the Board agreed to do and thus the foundation of the school was guaranteed.



Eastman Building on Prince Street Campus.

I came to Rochester in September, 1921, my wife and children going on to stay some weeks with Mrs. Whipple's family in Charleston, South Carolina. The first few days in Rochester were spent at the home of President and Mrs. Rhees where I enjoyed their generous hospitality. After that my living quarters were at the University Club, then on Chestnut Street.

A room was set aside for office work in the Eastman Building on the Prince Street Campus where Dr. John R. Murlin and Dr. Henry A. Matill were working on problems of physiology in the Lewis P. Ross Department of Vital Economics. An able secretary was promptly obtained, Miss Laura Olmsted (Mrs. Albert Dunson). The location of this office was most fortunate as the Eastman Building was close to the office of President Rhees. Consultation was easy and frequent and always most cordial. Dr. Rhees was a great university president. He had the curiosity of a true scholar and investigator and his questions and point of view were very important in the shaping of the plans and program of the School.

Dr. Rhees and I discussed in great detail the administrative problems of the new School. I had had enough experience as Dean of the Medical School of the University of California to realize how much time could be wasted if no definite program was in being with the help of skilled secretaries. I told Dr. Rhees that I could not be happy if I found myself



unable to continue my research program with plenty of time for teaching medical students in pathology. I told him that the Dean's Office should be completely separated from the Department of Pathology and that efficient help of one executive secretary and assistants would be needed to cover that area. Given adequate space in pathology I felt confident that the research work and the teaching program could be integrated successfully and result in adequate teaching of medical students as well as student fellows and juniors in pathology so that the department could turn out trained pathologists fitted to take senior positions elsewhere, which I considered an important duty of any department of pathology.

Dr. Rhees agreed to this general program and he became aware of my fear that outside calls might seriously impair my capacity to carry on my general program. I explained to him that there would be demands on my time by local groups and state and national organizations. I assured him that I intended to attend one or two scientific meetings a year and one or two administrative meetings, but no more. I hoped that he would permit me to decline local invitations for talks or membership responsibilities on committees when they would interfere with my work, although from the point of view of the Trustees and interested citizens it might appear that I was selfish and lacking in civic interest. I told him that meeting important people at dinners, club meetings and the like took much time and energy and interfered definitely with my work of the following day. He gave me his support in all these matters, even though he believed that occasional exceptions might serve the general University interest. He stuck by his bargain and we never had any subsequent discussion of these points.

As a result of this program I was able to function as Dean and as teacher of pathology. With the aid of able associates I continued my research program in the department. My investigative interests began in my first year as assistant in pathology at Johns Hopkins Medical School. I had participated in research as a medical student but only as an aid to Dr. Walter Jones in biochemistry and Dr. William G. MacCallum in pathology. My own research interests at first centered about the liver and bile pigments, blood coagulation, intestinal obstruction. These research problems were taken to California and expanded. Research interests included experimental anemia and blood regeneration, blood proteins, coagulation of blood, X-ray injury of body tissue, nitrogen metabolism and tissue injury. My research interests on coming to Rochester continued in experimental anemia and related regeneration of hemoglobin as influenced by diet: plasma protein regeneration and diet factors, muscle hemoglobin, bile salt metabolism, dynamic equilibrium of plasma

and body proteins, radioactive carbon in lysine to label proteins and their metabolism in the body, red cell stroma.

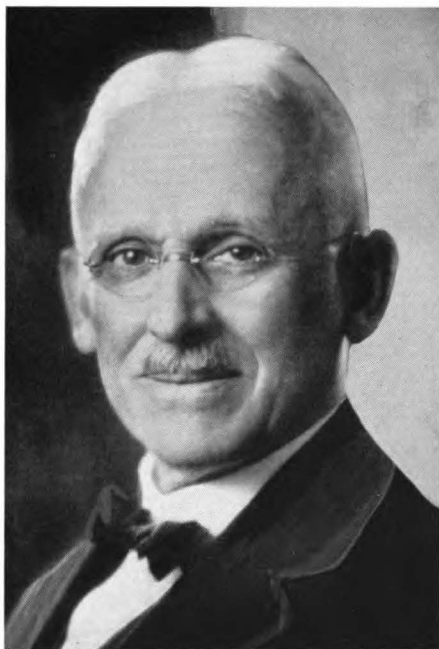
I enjoyed a sabbatical year, 1921-22, as far as research and teaching were concerned. During this period, however, an article for the *Physiological Review* was written on "The Origin and Significance of the Constituents of the Bile." A Harvey Lecture was also prepared at this time, entitled "Pigment Metabolism and Regeneration of the Hemoglobin in the Body." This lecture was given January 7, 1922.

### *Location*

AT THIS TIME no decisions as to location of the School and Hospital had been made. It was thought at the beginning that the School might be built on the Prince Street Campus, but it took only brief study to convince everyone that space was totally inadequate for this new development and the inevitable growth of the University and Medical School to develop side by side and that adequate space should be found. Various tracts in and around the city were discussed; among them was one on St. Paul Street to the north of the area in which the Bausch and Lomb factory is located, a considerable area east of Winton Road, between Highland and East Avenue, and the old Oak Hill Golf Club on the Genesee River adjacent to Genesee Valley Park and the related area called the Crittenden Tract on the opposite side of the Lehigh Valley Railroad, now occupied by the Medical School. As these two areas (Oak Hill and Crittenden Tract) were studied, it appeared that they were adequate, that they could be obtained at a reasonable price and that the area would take care of anticipated future development.

Some friends of the University objected to this location on the grounds that it was too far outside of the city, that a hospital must be in the center of the city to get an adequate in-patient and out-patient following. However, it was pointed out that sick people who wanted medical service would go to considerable trouble and that if the School gave good service, patients would come to this area. Mr. George W. Todd and Mr. Eastman were greatly interested in these developments, as were Dr. Rhees and the University Trustees. This decision relating to the site having been made, construction soon began.

During the year 1921-22, a good many schools were visited and many persons consulted as to future developments in medicine. It was agreed that the School and Hospital must be built together under one roof to facilitate cooperation between the Hospital and all the departments of the School as teaching, health service and research developed.



DR. GEORGE W. GOLER

### *Municipal Hospital*

AT THIS TIME Dr. George W. Goler, Health Officer of the City of Rochester, took a great interest in the developments of the School and in particular the Department of Bacteriology and Public Health. Blueprints had been made for the new Municipal Hospital to be built on Waring Road to replace the old Infectious Disease Hospital. As soon as Dr. Goler presented his plan of uniting the Municipal Hospital with the University Hospital it received enthusiastic support from all persons concerned, including Mr. Eastman and Mayor Hiram Edgerton. It was so obviously advantageous both to the University and the city that the plan advanced very rapidly and a contract was drawn up by Mr. Walter Hubbell, a distinguished lawyer and University of Rochester Trustee, covering the relationships between the Municipal and University Hospitals. This was a model contract which has been copied subsequently and on request sent to many hospitals in all parts of the country. The union of these two Hospitals has fulfilled all the hopes of the persons concerned and there has never been any significant friction. In fact, the city officials and the University Trustees have remained enthusiastic about this cooperative effort.

Early in the spring of 1922, it seemed wise to decide on a Hospital director. Consultations were held with Dr. Winford H. Smith of the Johns Hopkins Hospital and other interested persons, with the final result that Dr. Nathaniel W. Faxon of the Massachusetts General Hospital was offered the position and accepted in May of 1922. Dr. Faxon did not come to Rochester until November but he was in consultation relative to the Hospital and School plans from the time of his appointment.

### *Research Laboratory and Animal House*

IT WAS DECIDED to construct a small building on the School and Hospital tract—a relatively simple, two-story structure—to house the growing staff over two or three years while the main building was constructed, equipped and finally occupied. This building was called the Research Laboratory and later became the Animal House. It was built between August and November to supply rooms which were occupied late in November, 1922. It gave ample space for Dr. Faxon, myself and other members of the Hospital staff and School faculty to work on their plans for their departments.

The decision to build the School and Hospital under one roof was never questioned and very soon the present type of building was decided upon: a six-story structure with two main axes running north and south and east and west, each separated by 100 feet. It was found during the winter of 1922-23 that the whole site contained a layer of quicksand of varying



Research Laboratory (Animal House), December, 1922.



Taken in front of the Research Laboratory in February, 1923, this picture shows (left to right) Drs. John R. Murlin, George W. Corner, Stanhope Bayne-Jones, Nathaniel W. Faxon, and Walter R. Bloor.

depths, on the average of ten to twenty feet in thickness, overlying rock and scattered boulders with the top layer of soil and clay ten to fifteen feet in thickness. Consequently it was determined that concrete pile foundations were necessary for the main building. It also was decided to place the power plant between the University's new River Campus and the Medical School and Hospital area, where it could be serviced by the Lehigh Valley Railroad with considerable advantage in the delivery of coal. After discussion and comparison of prices, it was thought best to build this plant for coal fuel rather than to purchase heat from the Rochester Gas and Electric Corporation. Without doubt, that was a sound decision. It was decided to purchase electricity from the utility corporation rather than to manufacture it.

### *Structure*

AS THE SCHOOL and Hospital plans took shape, it was necessary to make decisions as to the exterior and interior finish. Everybody was interested in the exterior—Trustees, friends, architects, and especially Mr. Eastman, President Rhees and myself. I had spent my early years of training in the medical school and laboratories of Johns Hopkins University. The research laboratory in California also was of a simple type with brick



exterior and rough interior finish. Consequently I felt that this type of construction was suitable and desirable. In addition to many other things, it was economical for construction and maintenance. Mr. Eastman originally had felt that simple construction was highly desirable and he often said that plenty of medical schools and universities had demonstrated how *much* could be spent on exterior adornment and interior finishings; that he would like to see a school show how *little* could be spent, yet taking every precaution to maintain excellence in function. The architects, of course, were interested in a considerable amount of exterior adornment, in particular the consulting architects, McKim, Meade and White (Mr. Lawrence G. White). Mr. James G. Cutler, a Trustee who subsequently gave the Cutler Union to the University, was most emphatic in his statements that the School and Hospital should be an architectural jewel as a memorial. In the midst of all this debate, Dr. Rhees took the middle



This picture, taken from the main building looking toward the northwest, shows the Power Plant in the spring of 1924, with the heating tunnel nearing completion. In the lower right corner are the shacks for architects and lunchroom, and at the upper right is the old Oak Hill Golf Club building.

ground but was satisfied when the decision was finally made, largely through Mr. Eastman's insistence, that a simple exterior was most suitable. It was necessary for Mr. Eastman to tell Mr. White this news in person and subsequently there was no more argument by the architects. Critics of the simple structure gave various names indicating their disapproval, such as the "late penitentiary type," and the "modern factory style." Subsequently back planting and landscaping gave the buildings a handsome setting and vines have softened the exterior. Comments during this period changed from disapproval to approval. It was apparent that all of the rooms were light and useful and a great deal of money was saved by elimination of outside decorations, probably at least a million dollars.

The interior arrangements similarly were kept as simple as possible. Only in patient areas were floor coverings used and walls and ceilings plastered and painted. Elsewhere the cement floors were filled, oiled and waxed. The walls were left unpainted except where light conditions were unfavorable, as for example in the library.

Throughout the greater part of the building all pipes are exposed, whether water, gas, steam or soil pipes. In fact, the method of planning and construction necessitated this procedure. The desire to save time meant that the structure, including floors, window facade, stairs, and elevators, was placed in the blueprints, but that the details relating to sinks, lights, chemical tables and hoods could not be finished until the individual responsible for the department had worked out his complete plan. Openings about eight by twenty inches were left in the floors beside the supporting cement columns and the pipes were run through these spaces subsequently. Finally these pipes were surrounded by sleeves and the openings closed with cement. This decision turned out to be a wise one and effected a great saving not only in construction but in subsequent maintenance. For example, on discovering a leak, it is not necessary to tear up a floor or a ceiling or a side wall, as the leak can be found by inspection and repaired promptly at a minimum expense. As a matter of fact, in many laboratories these pipes may serve as supports for apparatus. In the Hospital these pipes may be closed in or covered and painted.

Monolithic cement floors were used in the various wings. The laboratory and corridor walls were placed upon this cement floor and built of bricks. There was a base layer of three rows of hard-burned, smooth bricks. The bricks above the base layer were grey sand lime type. When a laboratory wall was changed it could be taken down easily, leaving a smooth floor.



The waiting room of the Strong Memorial Hospital as it appeared when it was first opened. Its beautiful paneling, large fireplace, furniture groupings and paintings were carefully planned to avoid the cold, institutional look sometimes associated with hospitals.

### *Strong Memorial Waiting Room*

THE SINGLE EXCEPTION to the Spartan simplicity was the waiting room of the Strong Memorial Hospital. This was a memorial room designed to honor the family who gave a large sum of money toward the Hospital construction in memory of Henry Alvah Strong and Helen Griffin Strong. This lovely room was designed to correct the attitude of the patient and visitor who might think of a hospital as a cold and unfriendly agency, and would, it was hoped, have the atmosphere of a residence hotel or club lounge. This intention was carried out successfully. It is of interest to note that the first design of this memorial room called for marble floors, marble walls and an ornate ceiling almost like a bank foyer.

Mr. Eastman interested himself also in the landscaping and planting of the grounds surrounding the School and Hospital. He suggested that a screen of Lombardy poplars be planted around the power plant and along

the Lehigh Valley Railroad tracks. This screen was successful during the first twenty-five years of growth and it eliminated very largely disturbing sounds as well as unpleasant vistas of coal piles and freight cars. Now evergreens are growing up to take the place of these short-lived poplars, many of which have been removed. Mr. Eastman was fond of sycamore trees and several very fine specimens may be seen around the School and Hospital.

### *Dental School*

WITHOUT DOUBT, Mr. Eastman's interest in medicine came through dentistry. He himself had a great deal of trouble with his teeth during his young adult life, probably because of inadequate dental attention. In Rochester he came in contact with Dr. Harvey J. Burkhardt, a dentist of considerable experience, who finally brought Mr. Eastman's mouth into a healthy condition and supplied him with a set of properly adjusted dentures which gave him complete satisfaction. Mr. Eastman had talked over the question of dental education with Dr. Burkhardt and undoubtedly when the question of medical education came up, Mr. Eastman thought of associated dental education. He might never have been interested in medicine but for his own experience which demonstrated the importance of good dentistry.

During the discussions relative to a school of medicine, it was his suggestion that a combined school of medicine and dentistry be established. Mr. Eastman was interested in education of the highest order in dentistry as well as in medicine. If the dental students were to be associated with the medical students in their initial basic science work, obviously they must have had the same quality of training. It was specified, therefore, that three years of college training, including two years of chemistry, one of physics and one of biology, be the minimum requirements for both medical and dental candidates. When the School opened in 1925, it was expected that there would be a significant number of dental applicants. There were no dental applicants of any sort for the first two or three years and only a very few inadequately-trained applicants during the first five years (1925-30). The young men and women who were training for dentistry preferred to go for their training to the established dental schools requiring one or two college years, or even less, and they were not interested in the Rochester school.

After this experience, the whole question was re-examined and discussed with a number of agencies and teachers, as well as with Mr. Eastman. It was suggested that *graduate dentists* be offered scholarships

for *graduate instruction* and opportunities in teaching and research. They would have training adequate to gain Master's or Ph.D. degrees but not M.D. degrees. This experiment was supported by the Rockefeller Foundation and subsequently by the Carnegie Foundation. It has been continued successfully since its beginning and of that group of graduate dentists, a very high percentage subsequently occupied senior positions as professors, deans and investigators in dental schools in various parts of this country and abroad. It has been a successful experiment, totally different, however, from the original plan. Mr. Eastman was satisfied with this development, although he was disappointed that no undergraduates turned up for training.

### *George Eastman*

AS THE general plans for the School and Hospital developed in the competent hands of Gordon and Kaelber, and in particular of Mr. Leo Waasdorp, they were looked over from time to time by Mr. Eastman. He always had interesting, stimulating and extremely valuable suggestions to make and they are still apparent when one comes to examine the plant as a whole.

Mr. Eastman was an expert in the prevention of disasters relating to explosive and inflammable materials and one of his first suggestions related to the water supply of the main plant. As originally planned, there was a single intake pipe of some size from a water main in Crittenden Boulevard. Mr. Eastman said that the whole plant should be surrounded by a sizable water main with suitable valves and at least two, and preferably three or four, separate connections with city water mains. This would mean that, no matter what accident might occur relative to pipes or valves, a water supply under necessary pressure would be available against any emergency. That general arrangement with three separate intake lines is complete at this time.

As he looked over the long corridors running through several departments and hospital wards, as well as some chemical and some experimental laboratories in which were used inflammable chemicals oftentimes of explosive nature, he stated emphatically that these long corridors should be broken up into units of approximately 100 feet by fire doors at suitable places in these corridors. After careful study, heavy brickwork and metal doors were placed at strategic locations. When this general program was outlined, the cost of these fire-door installations amounted to many thousands of dollars and the question was therefore raised with Mr. Eastman as to whether this insurance could be justified. His reply



was to the effect that if, during the use of the plant over the foreseeable future, a single dangerous explosion which might cost the life of one or more persons was prevented or contained, then the cost was amply justified. No argument could be aimed against this clear statement and the fire doors are in place and give additional security.

At one time, when the plant as it stands today was in blueprint form, the question was raised as to whether the upper three floors might not be shortened somewhat in the two east-west axes. This would make for economy and it seemed that the space might not be necessary. Mr. Eastman's comment was to the effect that a school or hospital of this type, if successful, was bound to grow in personnel and that probably the space which appeared to be excessive would be found inadequate as future years brought developments. This was a prophetic comment, and more space is now urgently needed. Space constructed at that time effected a great saving when compared with subsequent construction cost.

When Mr. Eastman saw the layout of the X-ray Department, he realized that there would be a great deal of film which would require storage for reference purposes as a part of the history of the sick patients over the years. He gave study to the storeroom as outlined on the blueprints and found it inadequate in several respects. There was a small vent shaft similar to that found in most of the laboratories and storerooms. He pointed out that there was need for more space, but above everything else there should be a *large free vent* going straight up through the upper floors and roof so that if explosion or fire developed, these films would not endanger that area and the fumes would escape freely to the open air. The vent measures three by two feet.

When the catastrophe due to burning films in the X-ray storage room hit the great Cleveland Hospital (Crile Clinic) in 1929, these poisonous fumes killed 223 persons in the hospital and of course aroused criticism all over the nation. After that event, every reputable hospital was reviewed by the faculty, physicians, fire underwriters and others to avert any such catastrophe in the future. The Strong Memorial Hospital was the only one where the underwriters could find nothing to suggest to improve conditions except perhaps to make the room a little larger.

When Mr. Eastman examined the pharmacy, including the storage of anesthetics and other inflammable and explosive chemicals, he suggested that an outside unit must house this material so that if fire or explosion occurred, it would have free escape to the outside air. As a result, a small unit room was built in the court north of the memorial waiting room of the Hospital, connecting with the large pharmacy room. This unit room has large escape ventilators through the roof to permit the escape of

fumes or flames and an automatic-closing, heavy steel door which would close instantly in case of fire or as a preventive measure controlled from an adjacent room. There are sprinkler pipes in this room adequate to extinguish any fire which might develop. Only small amounts of inflammable chemicals are kept elsewhere, such as ether and alcohol in the operating rooms or in the laboratories.

It was automatic to refer the plans for the Department of Photography to Mr. Eastman, who referred them to experts in the Kodak organization. This space, as a result of their cooperation, was ample for general work in photography as well as special things like micro-photography. Dark-room space was ample and well equipped.

Nothing was too large or too small to attract Mr. Eastman's attention and one of the minor suggestions he made related again to the long corridors and stair wells where there are, of course, numerous dark corners. He felt that it would promote cleanliness and improve morale if these dark corners were painted white. His comment was that "only a hardened sinner would spit tobacco juice into a white corner." These white corners often bring questions from visitors but relatively few people realize that Mr. Eastman made the suggestion.

Plumbing is abundant in a school filled with laboratories and teaching rooms and therefore a very expensive item. The city code of plumbing specified that all sinks have traps which must be vented straight up through various floors to the roof. In some chemical rooms where students worked, this might mean fifty or more traps which would necessitate a forest of vent pipes interfering with work to say nothing of being a useless expense. In discussing this problem with the architects, one of the junior members, Mr. Plum, said that Cornell had just built a new chemical laboratory and had done away with these various vent flues relating to chemical sink traps. It was thought that the committee in charge of city plumbing ordinances might look favorably on such a modern, very efficient chemical laboratory, so it was decided to ask them to visit the laboratory in Ithaca to assure themselves that for chemical work such traps would not need venting. After a successful visit, the members of the board having charge of such matters decided that this school could build chemical sinks, large and small, without traps being vented through to the roof, or even without traps, as some of these sinks would flow directly to a large trap in the sub-basement of the particular wing concerned. Without a doubt, this saved a great deal of money (two hundred thousand dollars or more) during the period of construction and improved the laboratories considerably in addition. This, of course, did not apply to sinks in the Hospital.



The original Advisory Board of the School of Medicine and Dentistry, photographed in the spring of 1925, with President Rhees in the center of the front row. From left to right, back row, are Drs. Whipple, Karl M. Wilson and Murlin. Front, Drs. Bayne-Jones, Samuel W. Clausen, John J. Morton, Jr., Bloor, President Rhees, Drs. William S. McCann, Wallace O. Fenn, Corner, and Faxon.

### *Appointments*

DURING THE WINTER of 1921-22, Dr. Rhees and I had many discussions relative to personnel, realizing that these decisions were even more important than location and structural decisions. It seemed that a hospital director should be first appointed and, after some visiting and much consultation, Dr. Nathaniel W. Faxon was offered the position and accepted it in May, 1922, as stated above. He had been trained at the Massachusetts General Hospital under Dr. Frederic A. Washburn, an unusually able hospital executive. Two other appointments were decided at that time. Invitations went to Dr. George W. Corner in Anatomy (May, 1922) and Dr. Walter R. Bloor in Biochemistry (June, 1922). I had known intimately these two members of the faculty at the University of California during the preceding years and there was no hesitation in

making these decisions. We felt very fortunate to gain their acceptances. Dr. Corner was trained in the Department of Anatomy at Johns Hopkins under Dr. Franklin P. Mall. From Baltimore he went to the University of California, associated with Dr. Herbert Evans in the Department of Anatomy. Dr. Bloor gained his Ph.D. at Harvard under Dr. Otto Folin. He held positions at Washington University, Harvard Medical School and the University of California before coming to Rochester. Dr. Bloor and Dr. Faxon arrived in the summer and fall of 1922, for a short time occupying the office in the Eastman Building with me. The move from the Eastman Building on the Prince Street Campus to the Research Laboratory on Elmwood Avenue was made in November, 1922, and indeed was a move from the center of the city to the country and wide open spaces.

### *The Crittenden Tract*

THE CRITTENDEN TRACT was a sizable area bounded by Mt. Hope Avenue, the Lehigh Valley Railroad, Elmwood Avenue and the Barge Canal. There were a few scattered houses along Mt. Hope Avenue; otherwise the tract was completely undeveloped except for nursery plantings of trees in the eastern portion close to Mt. Hope Avenue. Elmwood Avenue was unpaved and ran straight across the Lehigh Valley and Erie Railroad tracks at grade to the old bridge across the Genesee River. There was no street on Crittenden Boulevard, only two rather rusty trolley tracks. Picnickers could ride from downtown out Mt. Hope Avenue to the Crittenden loop which was at the west end of Crittenden Boulevard close to a small subway for pedestrians going under the Lehigh and Erie tracks and opening into Genesee Valley Park. The underpass for Elmwood Avenue was constructed several years later. Lattimore Road did not exist. The tract south of Crittenden Boulevard extending west from Castleman Road to the Lehigh Valley tracks was good farm land and hay was cut there regularly by the neighboring dairy farmers. Early in the construction period, a spur track was built from the Lehigh Valley just north of Crittenden Boulevard. By this means much of the steel, cement, bricks and other heavy construction material was brought to the building site, the cars being unloaded a few yards from the building.

The winter of 1922-23 was a severe one with heavy snowfalls and at times we felt that we were situated north of the Arctic Circle. Elmwood Avenue was only occasionally passable and, because of snow drifts, frequently cars could not get in west of Mt. Hope Avenue. The road was used from time to time in the fall and winter to haul coal from the Lehigh Valley Railroad siding to the State Hospital.

## *Research Laboratory*

DR. FAXON developed his office on the second floor of the Research Laboratory with Miss Dorothy Widner as his first secretary and Dr. Thomas Devan as his first assistant. Dr. Bloor set up his chemical laboratory in the southwest corner room on the first floor and was soon carrying on his research program dealing with lipides. He would be assigned a secretary and, after a few months, she would be found doing analytical chemistry and Dr. Bloor would be writing his letters in longhand. Presently another secretary would be appointed and would go the same way!

During the year 1921-22, Dr. Frieda Robbins in San Francisco had been carrying on the anemia program which we had planned. A colony of standard anemic dogs had been collected and studied with great care. The Hooper Foundation, with friendly cooperation, permitted Dr. Robbins to continue her laboratory work and occupy a good deal of space in their animal rooms during that year. A most devoted, loyal and able associate over the years, Dr. Robbins carried on through this difficult period most effectively. In December of 1922, Dr. Robbins brought the entire standard anemia dog colony, numbering about forty, including puppies, from California to Rochester where they were properly housed and the research program continued without interruption. The anemia program was established in the southeast corner of the first floor of the Research Laboratory.

During this winter Mrs. Don Hutchens trained a number of technical laboratory assistants who formed the nucleus of the rapidly expanding group of technical workers for other departments.

Mail service for the Research Laboratory was somewhat inadequate during the winter of 1922-23. There was a mail box on South Avenue and Mr. Herbert Davis brought out the mail whenever he could make his way out to Mt. Hope Avenue. With the warmer weather in 1923, an arrangement was made with the Post Office to send mail out to the Crittenden Station. A mail bag came out to the South Park Station by the Erie Railroad. Dr. Faxon was the official postmaster for a time. Distribution of the mail was usually through Mrs. Albert Dunson's office on the first floor opposite the entrance door of the Research Laboratory. There was a small switchboard and she handled the telephone calls along with miscellaneous duties relating to visitors, architects and builders. She served as my secretary and also for Dr. Bloor and other senior staff members as they arrived, and in addition looked after the purchases and the budgetary details.

Mr. Warren W. Irwin established the Purchasing Office on the upper



floor of the Research Laboratory close to Dr. Faxon's office and this busy office has been under his control since April, 1925. Miss Helen Wood established an office on the upper floor of the Research Laboratory in September, 1924, and was soon working actively with Dr. Faxon on the plan for the nurses' dormitory.

### *Staff Appointments*

UP TO the summer of 1922, four heads of departments had been appointed: Dr. Bloor, Dr. Corner, Dr. Faxon and Dr. Whipple. This group, together with President Rhees, discussed other appointments on many occasions. In October, 1922, Dr. Stanhope Bayne-Jones accepted the appointment in Bacteriology, coming from the Department of Pathology and Bacteriology (William G. MacCallum) in Johns Hopkins Medical School. Dr. William S. McCann accepted his appointment in Medicine in December, 1922, coming from the Department of Medicine (Warfield Longcope) in Johns Hopkins Medical School. Dr. John J. Morton, Jr., was appointed in Surgery in May, 1923, coming from the Department of Surgery (Samuel Harvey) at the Yale Medical School.

As each senior appointment was made, these men, when available, participated in the discussions relating to future appointments and in this way the *Advisory Board* grew to be the Administrative Committee of



Start of excavation for main building in April, 1923,  
looking south toward Barge Canal.



Pile driver moves into excavation of main building. In the background to the south is the Lehigh Valley Railroad spur which then ran parallel to the trolley tracks in Crittenden Boulevard.

the School and Hospital. Dr. Karl M. Wilson was appointed in Obstetrics in September of 1923, coming from the Department of Obstetrics (Whitridge Williams) at Johns Hopkins Medical School. Dr. Samuel W. Clausen was appointed in Pediatrics in February, 1924, coming from the Department of Pediatrics (William McKim Marriott) at Washington University in St. Louis. Dr. Wallace O. Fenn was appointed in Physiology in May, 1924, coming from the Department of Physiology (Walter Cannon) in Harvard Medical School and Dr. Stafford L. Warren was appointed in Radiology in January, 1925. Dr. Warren continued his work in the Department of Radiology (G. W. Holmes) at Massachusetts General Hospital, Harvard Medical School. Several of the clinicians, Drs. McCann, Wilson, Morton and Warren, spent several months abroad before taking up their duties in Rochester.

## *Main Plant Construction*

ON APRIL 26, 1923, actual work began on the main building. A steam shovel appeared and a good deal of soil was removed by horse-drawn trucks. The first "fatality," in fact, occurred when one of the horses engaged in this work died suddenly. It is worthwhile to mention that during the entire construction and occupation of the main plant, no fatal accidents occurred among the working group. There were no significant labor troubles during the construction period.

The eating facilities were a bit crude and uncertain during the winter of 1922-23. We had facilities for making tea and coffee, but practically all the food was brought individually by the staff in lunch boxes. When the heavy construction began in April and May, 1923, a small shack near the Research Laboratory was equipped to supply food, coffee and tea to the construction workmen. The laboratory workers had the privilege of going into this little dining shack *after* the workmen had finished their lunch. Water for the minuscule kitchen was brought from the Research Laboratory and it is possible that the sanitary inspectors might not have passed this unit, but the food tasted very good to hungry people. This service continued throughout 1923 and into early 1925, and so far as I am aware, no epidemic resulted from any slips in the preparation of ordinary food material. The man in charge during the last year (Fred Lindenthaler) subsequently became the chef of the Hospital under Miss Grace Carden, chief dietitian. This shack also gave opportunity to the architects and their assistants, who spent a good deal of time in the construction area, to have a cup of coffee and talk over some of the difficulties with the scientific staff. In this way a good many mistakes were prevented which otherwise would have been expensive to change after construction was completed.

The small heating plant which supplied the Research Laboratory and offices with heat and hot water was looked upon as a temporary installation, to be eliminated when the main heating plant took over in 1924. The man who ran the first heating plant, Mr. Herbert Davis, was the first working man appointed to the Crittenden Tract on the payroll of the School and Hospital (November 11, 1922). This heating plant was changed over to an incinerator in 1925. Mr. Davis then changed from this job to the Engineering Department of the School and Hospital and remained in that position until his retirement in March, 1950.

When the pile driver moved into the excavation on May 7, 1923, one could see the outline of the main plant quite clearly and realize its considerable size (one and one-half acres). Because of the fact that

quicksand was so near the surface, it was decided not to have a finished basement below the surface level but that the pipes, drains and conduits be carried in an unfinished pipe basement, varying in depth from seven to nine feet. Subsequently some of this area was excavated to give space for transformer rooms, fan rooms, valve rooms and storerooms. Perhaps this is the most serious mistake that was made in designing the main plant which should have had a full-sized finished basement, beneath the ground floor level, as was done successfully in the new R, O and W Wings.

### *Library*

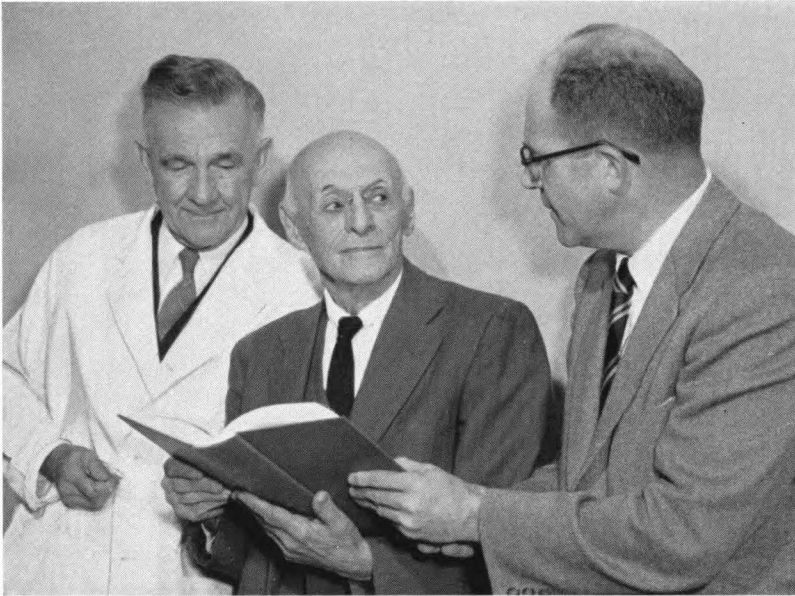
LIBRARY purchase began in 1921, Dr. Rhees having directed Mr. James F. Ballard of the Boston Medical Library to proceed with the purchase of complete sets of standard medical scientific journals, then available abroad at very reasonable prices. This was a most fortunate arrangement as Mr. Ballard was able to purchase for the medical library various complete sets which were very difficult to obtain in this country. This advantageous association continued through the period of growth of the school library. The first librarian was Miss Hester Hopkins, who began work in early 1923. She was succeeded shortly by Miss Olga Schaeffer, who continued from 1923 to 1929.

The first books purchased by Mr. Ballard were delivered to the Research Laboratory's second floor and unpacked there. They remained there until removal to the School library stacks in 1925.

### *Construction 1923*

DURING MAY, 1923, a large circus tent was erected close to the northwest corner of the main plant. In it were power saws, supplies and equipment used by the contractors to make the wooden forms for the concrete construction. The concrete skeleton had been planned to be as uniform as possible and these forms, therefore, were used over and over again on different floors and different units. Other tents for storage of cement and construction materials were being put up. Steam shovels were at work excavating so that concrete piles could be driven to support the six-story building. The spur track from the Lehigh Valley Railroad brought in heavy construction material daily. There were storage sheds at the end of this track close to the building. Large amounts of sand and gravel brought in by freight cars were stored ready for use.

The spring of 1923, preceded by an unusually heavy snowfall, was quite wet and cold. The drainage from the tract was practically non-



Mr. Abraham Flexner paid a notable visit in 1955 to the School of Medicine and Dentistry, in the founding of which he played a major part. Here he is shown talking over early days of the School with Dr. Whipple and Dr. Donald G. Anderson, who became Dean in 1953.

existent and water accumulated everywhere; in fact, small ponds, measuring perhaps 200 to 300 feet across, would form in some areas and were often referred to variously as Lakes Rhees, Whipple or Faxon. Dump trucks pulled by horses were sometimes hopelessly mired and at times a horse would be stuck for hours before it could be extricated. A tour around the area of construction called for rubber boots and oftentimes raincoats. Thus equipped, Dr. Faxon and I were constantly looking over the construction area and oftentimes found things which could be corrected before the work was completed or even begun. There were no stairways so ladders were in constant use as the upper floors took form.

This whole tract carried a large population of pheasants. During the active construction they retired to the tree nursery to the east or to the western and southern margins of the large tract. When the heavy construction was completed in 1924 they came back and were regular visitors during the early years of the school work. In the fall, one might see as many as twenty-five or thirty birds looking about for food. Many hunters were strongly tempted by these pheasants which were protected as being within city limits.

## *Full-Time Teaching*

THE ORIGINAL UNDERSTANDING with the General Education Board, Mr. Flexner, Dr. Rhees and everybody concerned was that "full-time teaching" would apply to clinical as well as pre-clinical heads of departments and their lieutenants. "Full-time" meant that the professors' compensation was paid by the School and that consultation fees, if any, would revert to the School. The object of this program was to protect the heads of departments from outside demands which could cut into their time and energy used for teaching and research. Experience showed that this full-time system does not protect the clinical heads in particular against demands coming from outside and, after some years of experience, the whole question was brought up again for debate and final decision. A modified type of "full-time" was adopted and in this school has worked out well.

## *Construction Difficulties*

THE CONSTRUCTION of the reinforced concrete frame of the main building was hampered by the late spring. It was hoped that the concrete frame and floors could be completed before winter weather set in and, in fact, most of the work was finished. However, some of the cement in the upper floors was poured in November and necessitated protection by tent covers. Often heat would be supplied by "salamanders," large cans containing burning coke or charcoal. Snow came on December 26 and ended the concrete work for a time. Only the upper floors of Wings B and C were incomplete. The work, of course, was taken up early in the following spring as soon as weather conditions permitted. Reinforced concrete was used throughout because of a cost differential in favor of the concrete and the delays which often interfered with constructional steel work.

During the stay in the Research Laboratory, a good many experiments were carried on by Dr. Faxon and associates to test new materials, new windows, new plumbing and various hospital fixtures. This unquestionably prevented the use of inferior material, to the benefit of the general plant construction.

Miss Helen Wood joined Dr. Faxon in the Research Laboratory and accumulated a good deal of the material which would be needed in the Hospital and Nurses' Home. This equipment was tested before final acceptance, greatly to the advantage of the future hospital. Miss Wood recalls that in the early construction period of the Nurses' Home the first occupant of that building in its early development was a *horse* belonging



In the spring of 1924, a year before its opening, the front of the Strong Memorial Hospital looked like this. In the foreground is the subway to the Nurses' Home.

to one of the workers and stabled for some time in the room now used for the nurses' living room. Miss Wood also recalls a short episode with the union painters working in the main building. Mr. Davis, formerly the fireman for the Research Laboratory heating unit, was applying a solution to the laboratory table tops to preserve and blacken these surfaces and he was using a *paint brush*. Learning of this, the union painters called a strike because Mr. Davis was a non-union man and not a painter. After some discussion, Dr. Faxon suggested that Mr. Davis could use a sponge or cloth instead of a *brush* to coat these laboratory bench tops. This decision was referred to the union authorities and they called off the strike which lasted about three hours.

The whole question of sound-proof construction was in its infancy and it was felt that certain areas might better await subsequent treatment rather than use material not yet thoroughly tested. After a good deal of study, a Lamson carrier system was installed to supply wards in the Hospital, out-patient clinic, record rooms and pharmacy, permitting expeditious exchange of histories and medicine. The Municipal Hospital was tied into the carrier system.

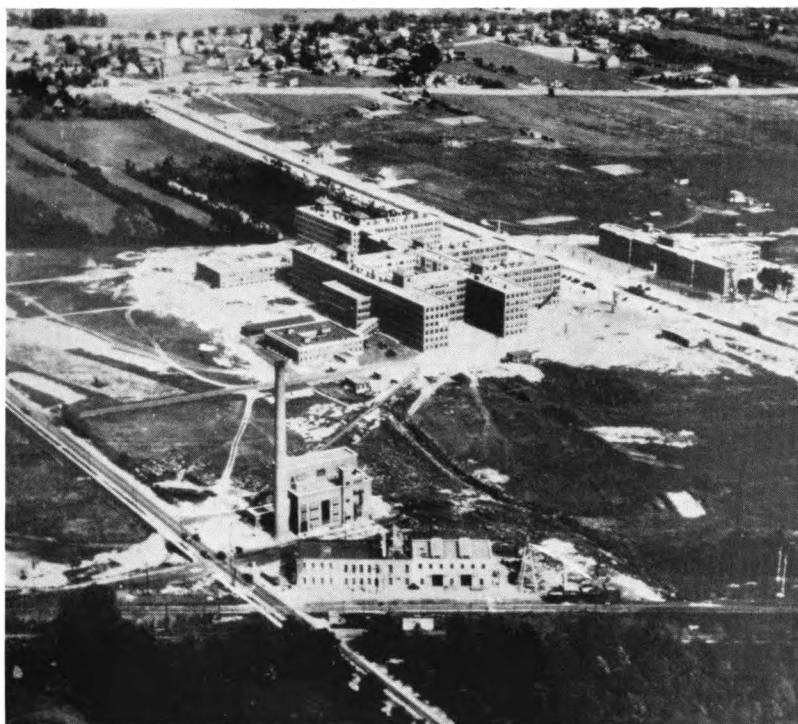


## *Power Plant*

THIS BUILDING obviously called for a good deal of expert study and interested the University and its Department of Engineering as well as the Hospital and Medical School. There was no difficulty in deciding where it should be placed, but quicksand introduced complications and at first it was decided to use caissons for the foundation of this heavy



The attractive entrance to the Hospital as it looks today  
with shrubs, vines and trees.



Airplane view of the Medical Center in the spring of 1924, looking toward the southeast from the Heating Plant and the Rochester Gas & Electric Station next to the Lehigh Valley Railroad (foreground). At that time, the railroad underpass had not been constructed, and Elmwood Avenue crossed the tracks at grade.

building. Excavation was begun in December, 1923, and caisson foundation work proceeded. It was found by test pit that the rock formation was not well suited for caisson foundations, so it was decided to abandon them and use reinforced concrete piling as in the main building. The foundation was built to carry a very heavy load, including the chimney, and a great many piles were driven in this area to support the heavy, solid, continuous basement floor and chimney base. This foundation has proved to be completely satisfactory. The construction was finished during the summer of 1924, the boilers and large coal bins being installed before the brickwork was completed. The power plant was ready for use when the cool weather arrived and the fire was lighted under the first boiler by President Rhees on November 10, 1924. The first engineer was Mr. Jacob Krockenberger, one of the older loyal employees of the University.



AERIAL VIEW—SCHOOL OF MEDICINE AND DENTISTRY

1. School of Medicine and Dentistry; 2. Strong Memorial Hospital; 3. Rochester Municipal Hospital; 4. Helen Wood Hall for Nurses; 5. Staff House; 6. Athletics Building; 7. Animal House; 8. Atomic Energy Project; 9. Supplies and Accounts Building; 10. Heating Plant; 11. River Campus, College of Arts and Science.

### *Construction 1924*

THE YEAR OF 1924 was the busiest construction period for the School, Hospital and related buildings. Work on the main building was going on at full speed; the outside brick walls were completed and work on heating, plumbing, water supply, and electric wiring was going forward rapidly. With the power plant completed in November, heat was available for the main building so that construction could go on steadily throughout the cold months of 1924-25. During the summer, storm sewers draining to the west were installed to take care of the considerable drainage of the construction area and contained buildings. This, of course, relieved the tract of stagnant water and made construction and grading much easier. Sanitary sewers were also installed, draining to the south where a small sewage plant was constructed by the city close to the Barge Canal. The large heat tunnel from the power plant to the northwest wing of the main

building was completed, also the subway between the Hospital and Nurses' Home.

Construction of the Nurses' Home began in February, 1924, and was pushed along rapidly toward completion. It was placed on piles because of underlying quicksand. This four-story brick building had accommodations for 250 student and graduate nurses. Plans for an extra wing had been drawn, extending from the west end of the present building south, but it was decided not to construct it at that time. That wing could be used to much advantage today had it been built then.

The Staff House construction was begun in September, 1924. The first unit gave accommodations for fifty-five staff members and within four years it was enlarged to accommodate ninety. This gave adequate accommodations for the resident staff serving the Strong Memorial and Municipal Hospitals, and also for pre-clinical juniors. It was thought that this residence association for pre-clinical and clinical department juniors would make for better understanding and cooperative work. Experience has proved that the decision to include pre-clinical juniors in the Staff House was wise and forward-looking. It is to be hoped that it will always continue.

The close cooperative endeavor of the clinical and pre-clinical departments is characteristic of this School and Hospital and means expanding programs of joint research as well as cooperative research training. This is in contrast to the conditions found in so many medical schools where the clinical and pre-clinical departments are separated physically by blocks or miles of space. Consequently the clinical and pre-clinical groups often lack understanding of each other's problems, which may give rise to friction and lowered morale.

### *Equipment*

IT WAS FORTUNATE that a local contractor was able to install the fixed equipment, wall tables and drawers, chemical tables with sinks and drawers, chemical hoods with adequate ventilation. This contractor had a large amount of unusually fine western pine lumber, seasoned over many years. Hardly a flaw could be found in these tables and benches after installation. The heads of departments were on hand at this time to keep an eye on this installation of fixed equipment to insure its complete suitability for their work. To have installed standard equipment coming from manufacturing firms outside the city would have been much more expensive, a differential approximating one hundred per cent increase. This equipment has been in place for more than thirty years now

with no need for replacement and only minor repairs from time to time.

As all of this work proceeded on schedule, the buildings were completed and furnished early in the spring and summer of 1925 so that departments occupied their assigned areas and were able to get their investigative work well in hand before the students of the first class appeared in September, 1925.

The main plant had a ground area of one and one-half acres. It was six stories high, and was constructed at a cost of \$2,566,000, or fifty-seven cents per cubic foot, including equipment. This construction was eminently satisfactory and unusually low in cost, thanks to the many economies already mentioned. To reproduce this plant at the present time probably would cost in excess of \$12,000,000.



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