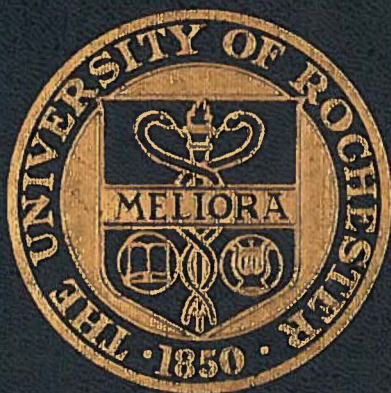


# The Quarter Century 1925-1950



*School of Medicine and Dentistry*

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*Strong Memorial Hospital*

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*Rochester Municipal Hospital*

## **The Quarter Century**





GEORGE EASTMAN—1854-1932

# **The Quarter Century**

*A review of the first twenty-five years*

## **1925-1950**



*School of Medicine and Dentistry*

*Strong Memorial Hospital*

*Rochester Municipal Hospital*

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**The University of Rochester**

*Rochester, New York*

1950





# THE MEDICAL CENTER—1950

- 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) Heating Plant. 10) River Campus, College for Men.

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## Foreword

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THE historical record of the first twenty-five years of the School of Medicine and Dentistry and Strong Memorial Hospital is covered in part in "The First Decade" published in 1936. Some material for this Quarter-Century record has been taken from that decennial record. This record as it stands may be of value to future historians as well as present friends of The University of Rochester. It is the work of many hands, heads of departments, members of the Advisory Board, Library Committee, and others. The Quarter Centennial Committee in charge of this record has had the responsibility of editing all material.

This record then is a family document perhaps lacking in adequate critical inhibition, perhaps suggesting the flavor of complacency, but at least giving evidence that there has been accomplishment and natural satisfaction with a growing institution. We feel free to say that we are proud of the men and women trained here as medical students, graduate students, or postgraduate resident personnel. Some of them have emerged as leaders in institutions to carry on as teachers, investigators, or physicians—some carry the heavy load of the general practitioner—others choose special work. Who is to judge which group is most successful or renders most valuable service to their communities?—G. H. W.

### Quarter Centennial Committee

GEORGE H. WHIPPLE

JACOB D. GOLDSTEIN

BASIL C. MACLEAN

HILDA DEBRINE

KARL M. WILSON

DOROTHY O. WIDNER

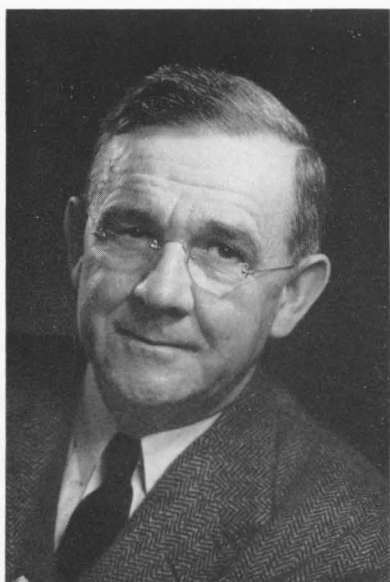
JOHN A. BENJAMIN, JR.

WALLACE O. FENN, *Chairman*





ALAN VALENTINE  
*President 1935-1950*



GEORGE H. WHIPPLE  
*Dean since 1921*



BASIL C. MACLEAN  
*Director of the Hospital since 1935*



M. HERBERT EISENHART  
*Chairman, Board of Trustees since 1945*

# The Medical Center

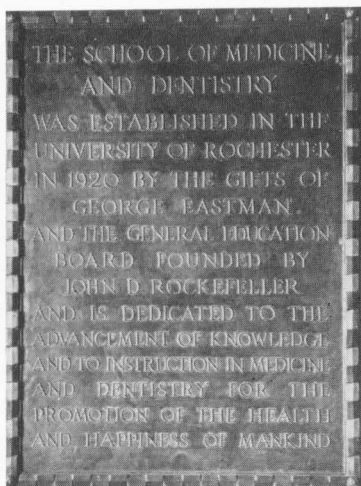
GEORGE H. WHIPPLE

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## *Foundation*

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 Mr. Abraham Flexner, of the General Education Board, who called on President Rhees to inquire whether Mr. 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 somewhere 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 such a 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. This agreement is recorded on a bronze tablet placed in the School corridor.

An additional gift of \$1,000,000 was provided in 1920 by Mrs. Gertrude Strong Achilles and Mrs. Helen Strong Carter, who specified that this fund was to be used for the erection of a hospital in memory of their father and mother, Henry Alvah Strong and Helen Griffin Strong. "Strong Memorial Hospital" was chosen as the most fitting name to commemorate this gift of Mrs. Achilles and Mrs. Carter. A memorial inscription, prepared by them, is inscribed on an oak panel over the fireplace of the main waiting room.



*Left:* Bronze tablet on first floor near Dean's office.  
*Right:* Memorial tablet to Henry Alvah Strong and Helen Griffin Strong in main lobby.

### *Other Bequests*

MANY generous contributions have been received since these original large gifts which served to found the School and Hospital. Limitations of space prevent a listing of more than a few of the many friends who have so generously aided our progress.

Dr. Charles A. Dewey in his will left a generous gift to establish the Charles A. Dewey Fund. The income from this fund is used for the purposes of the Department of Medicine, and the head of the Medical Clinic is designated the Charles A. Dewey Professor of Medicine.

Dr. Henry C. and Mrs. Bertha Hochstetter Buswell each made generous bequests to support research, the former in the Department of Urology and the latter in the Department of Medicine.

Mrs. Helen W. Rivas made a large gift to build a Psychiatric Clinic and establish a trust fund to apply to its operation and maintenance. This fine building is Wing R of the Strong Memorial Hospital and has enjoyed two years of successful operation as of this date.

A very valuable gift "for research in the medical sciences" came to the School of Medicine and Dentistry in 1948 under the will of Mr. Ernest L. Woodward. Research in all aspects of medicine has been an essential part in the operation of the School since its inception. This bequest will broaden and strengthen the basic program of medical research in this School and touches all departments. The productivity of research in this School will reflect in considerable measure the aid coming from

this gift which is designated the Ernest L. Woodward Fund.

The Department of Medicine has received funds for the support of research fellowships from Mr. Ralph Hochstetter. These fellowships are designated the Henry C. Buswell Fellowships and Bertha Hochstetter Buswell Fellowships, in honor of the great contributions of these individuals to The University of Rochester.

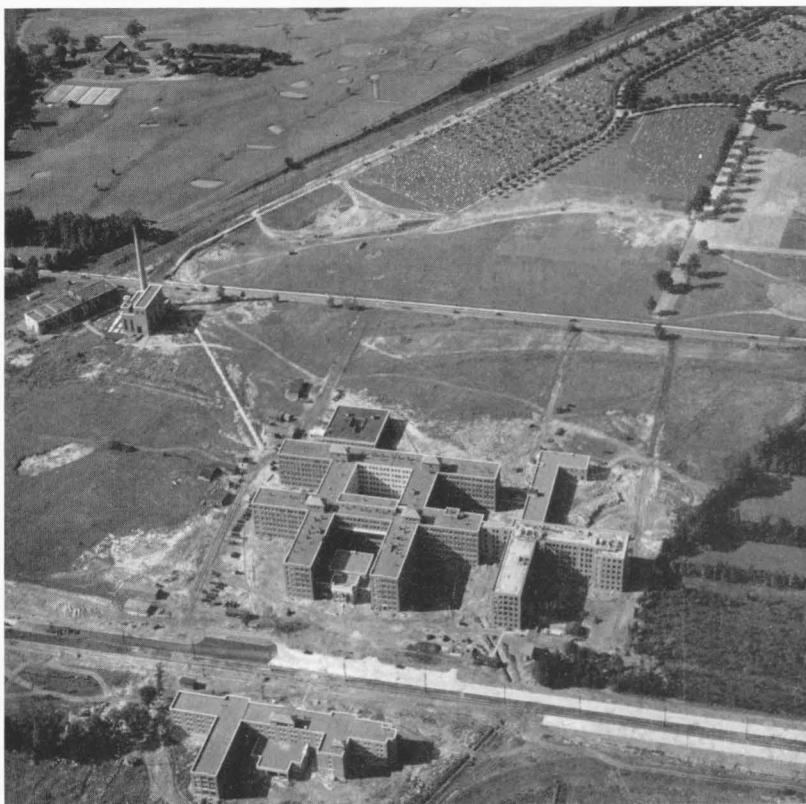
The Atomic Energy program, begun during the war and concerned with the atomic bomb problems, has grown rapidly, first under the direction of Dr. Stafford L. Warren and Dr. Andrew H. Dowdy, and subsequently under the direction of Dr. Henry A. Blair. The current year will see the large new north wing occupied by the Atomic Energy Project. It connects by subway with the older Atomic Energy units across Elmwood Avenue. This area is concerned with teaching and research in the large field of radiation biology.

The new wing for cancer research, therapy and teaching connects the Atomic Energy Project north wing with wings K and L of the main building, and will be devoted to clinical and experimental work in this important field. It was built with funds provided by the U. S. Public Health Service.

### *Early Organization and Construction*

DR. GEORGE H. WHIPPLE was appointed Dean of the School of Medicine and Dentistry and Professor of Pathology on May 2, 1921. He came to Rochester in mid-September, 1921, and set up an office on the second floor of the Eastman Science Building on the present campus of the College for Women. Dr. Murlin and the Department of Vital Economics were at that time located in this building. This location enabled Dr. Whipple to work closely with President Rhees on the multitude of problems relating to the new venture. President Rhees was interested in everything including new appointments, building plans, equipment, and locations. His vision and judgment, common sense and character, were all-important factors in the early basic decisions.

Mr. Eastman was sincerely interested in organization and building problems during these early years. He never studied the School and Hospital blueprints without making invaluable suggestions. His knowledge of fire and explosion hazards was profound and as a result the School and Hospital buildings enjoy exceptional fire protection by means of interlocking water mains, sprinklers, standpipes and other devices. Fire doors isolate the standard 100-foot building units. Explosive and inflammable material is housed in a small unit supplied with all modern methods of control. The photographic and X-ray units were far ahead of



Medical Center—August, 1925

their time in respect to explosion control, fire hazard and efficiency. Mr. Eastman looked at the finished plant and pronounced it good.

Location of the new School and Hospital was inevitably a part of the study by the University Trustees of a site for the University College for Men. It was decided in 1921 that the present campus of the College for Women was inadequate to serve as a site for the School and Hospital. The location problem was settled in early 1922 so that building plans could take shape. The decision on the sites for the School and Hospital and the College for Men was most fortunate. The School of Medicine and Dentistry is physically in contact with the College for Men and shares its great library and other advantages—yet the Hospital is not on the campus where a large group of sick people, visitors and nurses inevitably would cause confusion and conflicts.

Building plans began to take shape in 1922. A considerable number



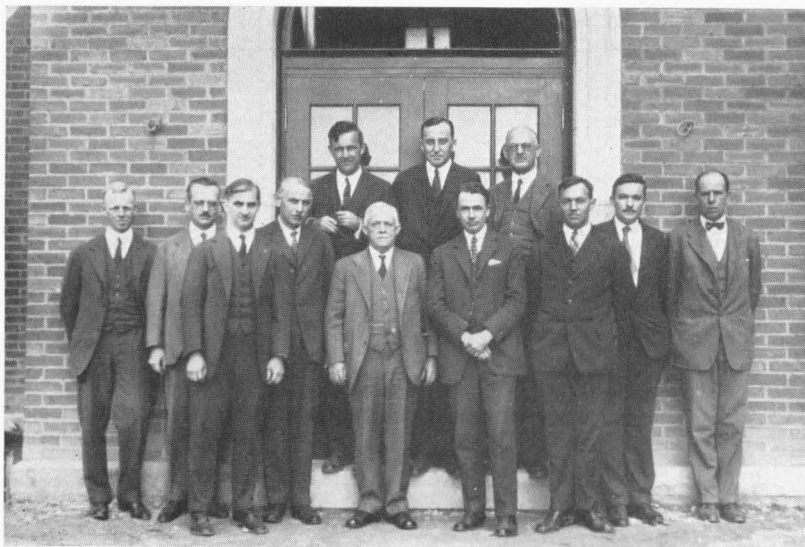
of schools and hospitals were visited and blueprints obtained. Mr. Eastman and President Rhees were deeply interested in the architectural design. Mr. Lawrence G. White, the consulting architect, advocated strongly the memorial type of construction so that the buildings would beautify the area. Mr. Eastman insisted that adequate demonstrations of memorial types of building were spread about the country, that he was convinced that there was real need for a building with a minimum of external adornment to demonstrate maximum facilities and optimum service, containing all the best modern equipment. With Mr. Eastman's militant support, the buildings were planned and built of brick with reinforced concrete frame. All pipes and conduits in the School are exposed to reduce maintenance to a minimum.

"Function rather than facade" was the master word. The wisdom of this program has been amply demonstrated in this span of twenty-five years and the type of construction has been copied in this country and abroad. The criticism of the simple architecture heard in the early days ("late penitentiary type," "factory architecture," et cetera) has not been conspicuous in recent years.

At the start it was decided to build the School and Hospital under one roof with such close integration that one could scarcely realize whether a given area was a part of the Hospital or School. Such physical arrangement means close co-operation between clinical and preclinical departments in research and teaching. Team play has been a characteristic of the School and Hospital and a source of strength. No tendency to isolate departments into "institutes" with separate budgets, teaching and research interests has emerged. It is the devout hope of this committee that lines of permanent cleavage will never develop in this institution.

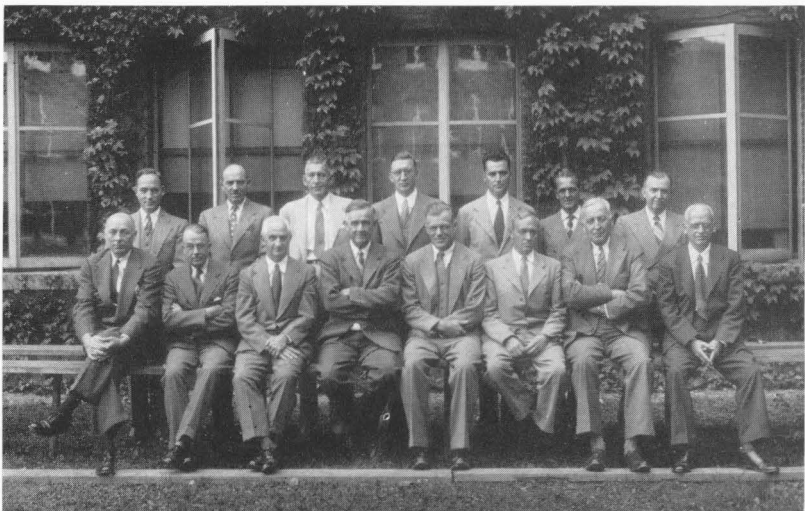
Dr. Faxon was appointed Director of the Strong Memorial Hospital in May, 1922. Dr. Corner was appointed Professor of Anatomy in May, 1922. Dr. Bloor was appointed Professor of Biochemistry and Associate Dean in July, 1922. Dr. Bloor arrived in October, 1922, and Dr. Faxon in November, 1922. They joined Dr. Whipple in the Eastman Science Building where Mrs. Laura Olmsted Dunson served as Executive Secretary.

Choice of department heads was all-important and made with care after full discussion with President Rhees and the department heads in Rochester. As the group of department heads increased slowly, all subsequent senior appointments were made after careful deliberation by vote of these heads of departments, now called the Advisory Board. Each head of department therefore participated in the choice of all seniors and accepted the responsibility for major decisions relating to appointments or general policy.



ADVISORY BOARD—1925

*Left to Right, Back Row:* DEAN G. H. WHIPPLE, K. M. WILSON, J. R. MURLIN. *Front Row:* S. BAYNE-JONES, S. W. CLAUSEN, J. J. MORTON, W. R. BLOOR, PRESIDENT RUSH RHEES, W. S. McCANN, W. O. FENN, G. W. CORNER, N. W. FAXON.



ADVISORY BOARD—1950

*Left to Right, Back Row:* H. A. BLAIR, G. H. RAMSEY, H. E. PEARSE, E. H. STOTZ, J. ROMANO, K. E. MASON, W. L. BRADFORD. *Front Row:* B. C. MACLEAN, W. S. McCANN, J. J. MORTON, DEAN G. H. WHIPPLE, PRESIDENT ALAN VALENTINE, W. O. FENN, K. M. WILSON, S. W. CLAUSEN.

Plans had taken shape for the first building, then designated as a Research Laboratory but at present known as the Animal House. Ground was broken in August, 1922, and the building was occupied in late November, 1922. It was a two-story brick building about 100 feet square with a small central court. Because of the general plan to use it in part for offices, research laboratories, testing laboratories and animal quarters, the original partitions were of wood. A small heating plant serviced this building up to the date in late 1924 when the main power plant took over. That small heating unit was then converted to a refuse incinerator.

Before the Animal House (Research Laboratory) could be built, it was necessary to determine the size, contour and location of the main School and Hospital building. Fortunately President Rhees, Dr. Faxon, and Dr. Whipple supported by Mr. Eastman had visions of a large enterprise to be built as a unit, giving ample space to permit expected growth. At times during its construction there were fears expressed that some units were not realistic and far too large—one visitor stated that the Animal House would never be filled in a span of one hundred years. At present there is acute need for twice the space available in that building.

During the early years of the School, the departments "rattled around" in the large wings which the department heads had planned—some space was left unfinished and some used for recreation (handball, ping-pong, et cetera). Today one can scarcely find an unoccupied niche in which to place a veteran postgraduate fellow or a foreign visiting fellow who is prepared to carry on productive research.

Construction was begun before many of the floor plans had been worked out. Standard 100-foot units of uniform width and fenestration were designed and details of curtain walls, plumbing and equipment left for a later date. This type of construction saved time but placed a heavy burden on the architects, Gordon, Kaelber, Waasdorp and associates. They never lost their good nature under stress and the end result was satisfactory.

Foundations were placed on concrete piles as borings had shown a layer of quicksand 10 to 20 feet thick below the surface layer of clay about 10 feet thick. These piles were well driven and there never has been any evidence of foundation settling.

The winter of 1922-23 was severe and 2 to 3 feet of snow covered the ground up to the end of March, 1923. The drive in from Mt. Hope Avenue was always an adventure, reminding one of pioneering above the Arctic Circle. There was very little traffic on unpaved Elmwood Avenue and snow plows were reported but never seen.

Actual work on the main building began with the arrival of a steam shovel on April 16, 1923. Excavation for the Municipal Hospital began on

August 13, 1923. The heating plant was begun and completed during 1924. This large unit was planned to heat all the School and Hospital area as well as the large College for Men. On November 10, 1924, President Rhees and Jacob Krockenberger, Chief Engineer, lighted the fire in this heating plant which, like the Hospitals it serves, will never cease to function short of some national catastrophe.

The staff house excavation was begun in September, 1924. It was built to accommodate 55 members, but subsequently was enlarged to its present size of 90 staff members in 1929. Resident hospital staff officers and internes as well as preclinical juniors and research fellows live together to their mutual advantage. Exchange of ideas between the Hospital and School groups makes for broader training, co-operative research and all-round team play.

A note about the Athletics Building may be of interest. As a rule the facilities for exercise are inadequate in most schools and hospitals, and this had been pointed out to President Rhees who was sympathetic. When his son, Dr. Morgan Rhees, developed a pneumothorax which at that time was thought to be due to tuberculosis, the President and Trustees became personally concerned with recreation and student health problems and in 1933 authorized the construction of this building. It contains 4 squash and handball courts, a large room for basketball, volleyball and badminton, locker and shower rooms. It has contributed much to the well-being and health of the hard-working staff and students.

### *Laying the Cornerstone*

ON JUNE 14, 1924, Alumni Day of the University of Rochester Commencement week, the cornerstone of the School of Medicine and Dentistry and Strong Memorial Hospital was laid. From an improvised platform, located at the present main entrance of the Hospital, President Rush Rhees introduced the principal speaker, Dr. Edward B. Vedder, Lieutenant Colonel in the U. S. Army Medical Corps and a graduate of The University of Rochester. On the platform also were Mayor Clarence D. VanZandt and Dr. David Jayne Hill, former President of The University of Rochester. Following Dr. Vedder's address, the cornerstone, bearing the date "1923" was lowered into place guided by President Rhees.

### *Rochester Municipal Hospital*

DR. GEORGE W. GOLER, Health Officer of the City of Rochester at that time, was responsible for the location of the Municipal Hospital adjacent



RUSH RHEES  
*President 1900-1935*



EDWARD G. MINER  
*Chairman, Board of Trustees 1937-1945*

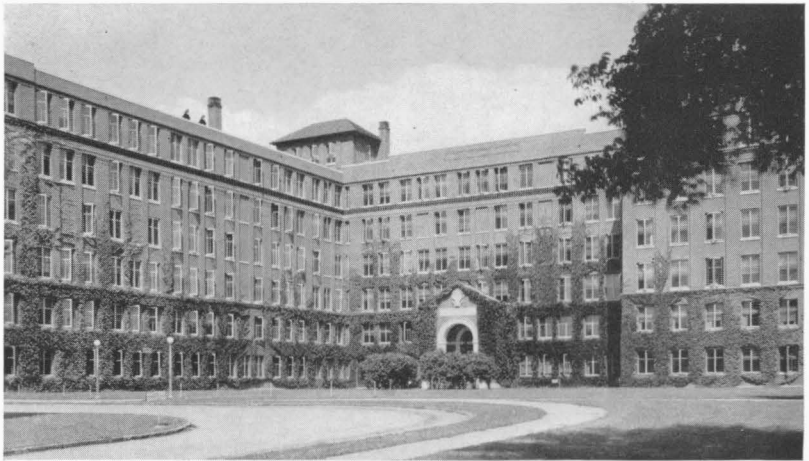


NATHANIEL W. FAXON  
*Director of the Hospital 1922-1935*



WALTER R. BLOOR  
*Professor of Biochemistry and  
Associate Dean 1922-1947*





Rochester Municipal Hospital Entrance.

to the Strong Memorial Hospital and functionally a part of it. Dr. Goler was a crusader who had visions and loved to battle for the good cause of public health and civic betterment. Many a battle he fought and won but he was never designated a diplomat. Dr. Goler had a vision when the building of the Strong Memorial Hospital and School of Medicine and Dentistry was announced. In spite of the fact that in 1922 blueprints were in being for a new hospital on Waring Road, Dr. Goler came to President Rhees with a proposal to build this hospital adjoining the Strong Memorial Hospital. This plan gained the enthusiastic support of President Rhees, Mr. Eastman, Mayors Edgerton and VanZandt, and Dr. Whipple. Some time and study were given to a legal contract covering this functional and physical union of the two hospitals and the final draft was made by Walter S. Hubbell. That contract has been reviewed by many municipalities in various parts of the United States, and has served as a model for similar community programs. Its final article is worthy of quotation and is the heart of the agreement:

*The parties hereto recognize the fact that the relation between the Medical School and Hospital of the University and the Municipal Hospital sought to be established will, necessarily, be intimate and interdependent and that each will derive the greatest benefit only by promoting the interests of both, and each of the parties hereto is, therefore, entering into the contract with the intention of loyally co-operating with the other in carrying out the terms of the contract and agrees to interpret its provisions, in so far as it may legally do so, in such manner as will best promote the interests of both and render the highest service to the public.*

As a part of this contract The University of Rochester made available to the City a considerable tract of land immediately adjacent and to the east of the location occupied by the Strong Memorial Hospital. All service facilities such as kitchen, laundry, operating rooms, out-patient service, laboratories, X-ray and autopsy facilities, stores and shops, were combined and located in the main building. This effected large savings to the City for construction and maintenance.

The Municipal Hospital closely resembles the Strong Memorial Hospital in construction and equipment. It contains a large unit for infectious disease observation and treatment, also a unit for observation of mentally disturbed patients. Patients were transferred from Waring Road on July 30, 1926. Mr. J. Ward Thompson, long time superintendent of the old Municipal Hospital, continued in charge under Dr. George W. Goler. Mr. Thompson died on October 27, 1933, and was succeeded by Mr. George J. Dash, who retired in February, 1950. Mr. William B. Woods was appointed in his place. There has always been a cordial and co-operative relationship between these two hospitals which reflects the high ideals of those in administrative control during these twenty-five years. The success of the partnership between the City and the University in the administration of the Municipal Hospital is due in no small part to the support and co-operation of the successive Commissioners of Public Safety during this period, namely Messrs. Harry J. Bareham (1922-25), Curtis Barker (1925-27), George Nier (1928-30), Donald Dailey (1930-31), the late William Durnan (1932-33), the late Walter P. Cox (1934-



Rochester Municipal Hospital Main Lobby.

37), Harold Baker (1937-47), George Welch (1947-48), Thomas C. Woods (1948-49), Victor Raycroft (1949), and David Brady (1949—).

The original Municipal Hospital, known as Hope Hospital, was established (as a result of an epidemic of smallpox in 1868) in a small century-old farm house on a triangle between the Erie and Lehigh Valley Railroad tracks, just north of the present River Boulevard. It consisted of an old two-story, unsewered, lamp-lighted house, built about 1826, and enlarged by the erection of two stove-heated wards capable of accommodating sixteen persons. It was known as the "pest house" and was quite inadequate in the epidemics which visited the city at frequent intervals. Finally after a smallpox epidemic of a thousand cases and one hundred deaths in 1902, the Municipal Hospital on Waring Road was built and cared for the city's cases of acute infectious diseases for twenty years until it in turn proved unequal to the need.

### *Opening of the School and Hospital*

THE School of Medicine and Dentistry opened September 17, 1925, with its first class of 22 students drawn from thirteen colleges, five states and one foreign country. At this time the faculty numbered 65.

The 26th class entering September, 1949, numbered 69. Forty-eight colleges and twenty-one states are represented. At present the faculty numbers 385, including, as before, all those of the rank of assistant or above.

The principles guiding the operation of School and Hospital are simple. The faculty is made up of men and women who have an abiding interest in teaching, research and care of the sick. Teaching is as informal and direct as possible. Students learn mainly by doing, not through lectures. Students are made to feel like junior members of the departments immediately concerned with the current instruction.

Choice of students is of utmost importance. Ability, health and promise of future development regardless of location of the applicant are of prime importance. Scholastic ability is essential to carry through the tough medical training program but everyone realizes how important are the character and personality of the student who eventually, to be successful, must gain the confidence and trust of the sick patient. The students trained here come from all parts of the country, relatively few from abroad. When their training is completed they compete successfully with graduates of other fine schools for the most sought-after internships.

The size of medical school classes determines the type of instruction. Given large class groups of 120-150, the lecture and demonstration must replace largely the direct intimate instruction in small groups which is



Strong Memorial Hospital Main Entrance.

used in this School and Hospital. This School's capacity is 65-68 per class and this maximum capacity was carried through the war years and up to the present date. Pressure for education of more doctors should lead to organization of more schools rather than to overcrowding and inferior training by the existing schools.

It is not generally realized that today most schools and hospitals have almost as many students of the postdoctorate level as in the medical student group. These students are designated as veteran postgraduate fellows, research fellows, or resident staff. There are also visiting fellows, from South America, the British Empire, India, China, and other foreign countries. All of these are a vital part of our student body, gain much in the way of training, and contribute much in the pursuit of research,

the advancement of medical knowledge and the routine care of patients.

Medical schools in addition to training the medical students and post-doctoral fellows and resident staff should also train young teachers and investigators as junior staff members to replace older teachers as they retire and to fill openings in other medical schools and hospitals. One measure of a successful school is the number and calibre of these young teachers in training and the types of places filled by them in other medical schools. We are proud of our list of teachers and investigators trained in this School and Hospital and now located in other medical schools both old and new, scattered from Boston to Los Angeles or Seattle, and from Chicago to New Orleans.

The Dean's Office should care for student records, student applications, student curricula, preparation and publication of the catalog, parts of the President's report, lists of alumni, and their whereabouts, graduate and undergraduate student problems, and a host of related details. This complex problem was made even more difficult during the war years by the necessary contacts with the Navy, Army, and the Veterans Administration. Mrs. Laura Olmsted Dunson started this organized effort but since 1929 Miss Hilda DeBrine has been in full charge and with able associates has carried on to the entire satisfaction of the students and faculty. The various deans, Drs. Whipple, Bloor, Berry, Bradford, and Fenn, concern themselves with matters of policy in which they act as agents of the Advisory Board. They give much time and thought to the choice of medical students from the large lists of applicants.

### *Dedication of the School of Medicine and Dentistry and Strong Memorial Hospital*

ON OCTOBER 25 and 26, 1926, the formal dedication of the School of Medicine and Dentistry and Strong Memorial Hospital took place. About seventy outstanding medical schools and hospitals in the United States and Canada sent official representatives. Public exercises were held in the Eastman Theatre, with an address by Dr. John C. Merriam, President of the Carnegie Institution, Washington, D. C. At these exercises the honorary degree of Doctor of Science was conferred on Dr. Friedrich von Müller of Germany and Dr. Andrew Balfour of London. Dr. Andrew Balfour, Dr. Harvey Cushing, Dr. Joseph Erlanger, Dr. Ludwig Hektoen, Dr. Theobald Smith, Dr. Friedrich von Müller, and Dr. Lewis H. Weed participated in the program, either giving scientific papers or conducting clinics in the amphitheatre of the Medical School. The dedicatory exercises of the Hospital were held in the Main Lobby before the fireplace at 4:15 p.m., October 25, President Rhees making a few brief remarks.



# The Strong Memorial Hospital

BASIL C. MACLEAN

WHEN DR. FAXON, the Director, opened the doors of Strong Memorial Hospital on January 4, 1926, personnel were on duty in each department, and among these "originals" were the following:

ADMINISTRATION: Nathaniel W. Faxon, M.D., Thomas A. Devan, M.D., Dorothy O. Widner. SCHOOL OF NURSING: Helen Wood, Leone N. Ivers, Grace Reid. ADMITTING OFFICE: \*Gertrude DeLaney. BUSINESS OFFICE (formerly Accounting): LeRoy E. Agne. DIETARY: Grace Carden, Susan Paige. ENGINEERING (formerly Maintenance): \*Jacob Krockenberger, Clifford Beach, Herbert Davis. LAUNDRY: Harry D. Meech. MAINTENANCE (formerly Housekeeping): Mrs. Jane B. Armstrong. OUT-PATIENT



Information Desk in Main Lobby.

DEPARTMENT: Hanna Peterson. PHARMACY: Andrew W. Nixon. PHYSIOTHERAPY: Mildred Shepard (Mrs. Einar Lie). PUBLIC RELATIONS (formerly Information Desk): Marie F. Powers, Mildred A. Mason. PURCHASING: Warren W. Irwin, Margaret C. Brown. RECORD ROOM: Marguerite L. Heath (Mrs. John Kennedy). SOCIAL SERVICE: Mrs. Ruth T. Boretti. TELEPHONE: \*Mildred I. Payne.

Although death and retirement have robbed the Hospital of some of these employees, eight of the list remain active in the Hospital as this brief chronicle is written, viz., Mr. Agne, Mr. Beach, Miss Brown, Mr. Irwin, Miss Ivers, Miss Mason, Miss Peterson, and Miss Widner.

The early years of the Hospital were ones of rapid growth. As the reputation of the new Hospital was extended, more patients came to it and from greater distances. The "guinea pig phobia" faded and in its place came a recognition that a teaching hospital offers many advantages in diagnosis and treatment.

The increase in the amount of work done may quickly be seen in this table:

	1926-27	1936-37	1948-49
<i>In-patients admitted</i> . . . . .	4,405 . . . . .	12,721 . . . . .	17,828
<i>Patient days</i> . . . . .	58,905 . . . . .	145,169 . . . . .	197,070
<i>Out-patient visits</i> . . . . .	25,121 . . . . .	116,142 . . . . .	83,655
<i>Operations performed</i> . . . . .	2,197 . . . . .	5,939 . . . . .	9,096
<i>Babies delivered</i> . . . . .	143 . . . . .	931 . . . . .	1,799

The changes in the pattern of hospital care are mainly a shift from ward to semi-private beds under the influence of a hospital insurance program which started in Rochester in 1936 and which now protects three quarters of the population of the city, a decrease in out-patient visits during the war and post-war years of relative prosperity, and a shorter average in-patient stay. During the last 6 months of 1949, for example, there were 200 more patients admitted to the Strong Memorial and Municipal Hospitals than during the same period of the previous year, but there were 5,500 fewer patient days of care in these two units.

As the original contract between the University and the City of Rochester for the operation of the Municipal Hospital neared expiration, attempts were made to open the Municipal Hospital to any licensed physician. Obviously a teaching program could not endure under such a system. The contract was nevertheless renewed for a ten-year period in 1938 but the Medical Center was criticized on the slightest pretext. If any fault were to be found by an impartial observer, it would probably be

\*Deceased

that too much emphasis has been placed upon the virtue of anonymity. Publicity has been shunned during the first quarter century of the Medical Center, that period in the life of every new teaching institution which Dr. Alan Gregg of the Rockefeller Foundation has aptly described as one of suspicion and attack.

One of the most important factors in dispelling suspicion and encouraging teamwork among Rochester hospitals was the organization in 1939 of the Rochester Hospital Council with an unusually competent full-time staff. This was followed in 1946 by the establishment, under a Commonwealth Fund grant, of a Council of Rochester Regional Hospitals to conduct an experiment in regional planning. Today there are few cities where co-operation among hospitals is as extensive as in Rochester. This change in attitude toward the Medical Center is well illustrated by the fact that the second renewal of the Municipal Hospital contract for a period of ten years was made without debate in 1948.

During the war years, the Hospital suffered the strain which was felt by all similar institutions. Many employees were lured away to higher wages offered by industry and at times executives and department heads pushed food trucks and carried out similar jobs to keep the institution running. Of all personnel, however, the nursing staff deserves most credit for the extra heavy duties assumed by them during this period. It may truthfully be said that they kept the Hospital open during the war years.

The nurses had generous and able assistance, however, from scores of Red Cross and other volunteers and to these women and men the University owes a debt of gratitude. Although the Red Cross Aides' program was one designed for the emergency period, some of these volunteers continue to work in the Hospital. The large group of women who now come under the title of "Patients' Library and Aide Service" contribute much in time and effort and are of invaluable assistance.

During the first year of the war under directions from the Office of Civil Defense, practice blackouts, tin hats, sand buckets and dummy casualties became the order of the day. The Hospital dutifully did its part in setting up emergency kits which in an extreme disaster would permit the performance of a laparotomy in the middle of Main Street. The aura of preparedness against air raids at one point led to a plan, unknown to the Hospital Administration, which would move all patients to Clifton Springs in case of need. As the war developed such plans began to seem somewhat ludicrous but, as the atomic age approaches, the need for some realistic preparedness for disaster seems again not unwarranted. As a small beginning in this direction the Hospital appointed a Disaster Committee which submitted in 1950 an organizational plan

to be applied to the handling of casualties within the Hospital in case of any emergency involving the deaths of 25 or more individuals, this being the definition adopted for a "disaster."

The original resident staff of 37 grew steadily to a roster of 70 before World War II. Under Selective Service regulations during the war, this graduate group in training shrank to 50. In the post-war years many additional fellowships have been available, particularly for men whose post-doctoral training was interrupted by the war, and the resident staff has now reached the unprecedented number of 135.

Traditionally only straight internships were offered in each of the clinical services. An increased interest in training for general practice led to the establishment in 1949 of a number of two-year internships which rotate on a six-months' basis between the Departments of Medicine, Psychiatry, Obstetrics, and Pediatrics.

Since 1947 a rotation of resident staff to some smaller hospitals in the Rochester area under the Council of Rochester Regional Hospitals has been in effect. This is only one of the activities in the regional plan, the purpose of which is to raise standards of medical and hospital care by a closer integration between large and small hospitals.

The Strong Memorial Hospital has served as a training center in hospital administration, and eleven men who have served apprenticeships as administrative assistants or as assistant directors have been appointed as Directors of other hospitals.

An episode which caused some concern during the last weeks of 1936 and immediately following the elections of that year was an attempt by a few discontented employees to organize a union and threaten a strike. This Hospital was paying at that time higher-than-average hospital wages and during that same year a plan of annuities and group life insurance had been started. Fortunately the majority of employees resisted the efforts of the few malcontents to imperil the safety of sick people and since that time employee relations have been unusually good.

The opening of Wing Q in May, 1941, provided additional single rooms, most of which are small but adequate for patients who desire privacy at minimal cost. The gift of the Hartwell Clinic at LeRoy in 1947 extended the scope of the Hospital, and the addition of Wing R in 1948 strengthened markedly the facilities of the Medical Center.

Since the opening of the Hospital in 1926, over 800 physicians have received part or all of their training as members of the resident staff, and during World War II, approximately 168 of these men enlisted in the Medical Corps of one of the branches of the armed forces. Two of these men were killed in action, Captain Marvin Cooke and Captain J. Thomas Farris.



Edith Hartwell Clinic, LeRoy, New York.

### *The Edith Hartwell Clinic*

THE Edith Hartwell Clinic of the Strong Memorial Hospital is located at LeRoy, New York, and is a research center primarily concerned with the treatment and rehabilitation of the neuromuscular disabilities of childhood, including cerebral palsy.

The Clinic, which was opened on October 15, 1947, is named for Mrs. Ernest L. Woodward of LeRoy, who, with her husband, gave to The University of Rochester the property which consists of a spacious colonial residence and 67 acres of land, and money with which to finance the remodeling of the building. The Clinic is an integral part of the Strong Memorial Hospital, and its operation has been made possible through annual grants made by the State of New York. The expenses of the majority of the patients at the Clinic are partly defrayed through the State Aid Program.

In association with the clinical project, there is a five-year research program, made possible through a grant of \$292,000 from the National Foundation for Infantile Paralysis.

The main clinic building has accommodations for 36 children. On the ground floor are the doctors' offices and examining rooms, a laboratory, a large physical therapy room, a brace-maker's shop, a maintenance shop and laundry. On the first floor there is a spacious occupational therapy room, a schoolroom, a large recreation room, a library for the use of the staff, administrative office, dining room and kitchen. The psychologist and the speech therapist have their offices on the second floor and the



remainder of this floor is devoted to bedroom space for the patients.

A physician is in residence at the Clinic and as a part of the Strong Memorial Hospital training program for orthopedic surgeons, the Clinic is assured of medical staff supervision at all times. Under a co-operative arrangement between the State Teachers College at Buffalo and the Clinic, a teacher and a speech therapist are members of the permanent staff.

Before admission to Edith Hartwell Clinic, each patient undergoes a number of examinations which are carried out in the Out-Patient Department of Strong Memorial Hospital. Here the patients are seen by a diagnostic team consisting of a pediatrician, a neurologist, a psychologist, and an orthopedist. The facilities of the Clinic are reserved for those patients between the ages of two to twelve years whose condition suggests that they will derive benefit from the treatment.

The Superintendent of the Clinic was Miss Mildred Prettyman until March 10, 1950, when she was succeeded by Mrs. Kathleen Wingate, formerly in the Physiotherapy Department.

### *The School of Nursing*

THE School of Nursing, organized by Miss Helen Wood, admitted its first class of sixteen students in September, 1925, even though the corridors of the Nurses' Dormitory were filled with carpenters, plumbers, and painters and the general entrance was through a fire escape. The School bulletin of that year announced a diploma course of twenty-eight months and a five-year course leading to a Bachelor of Science degree with a major in Nursing.



Nurses in Academic Procession—Commencement Day.

This School, fortunate in its association with a University and a School of Medicine, and with both private and municipal hospitals, has naturally made minor and major changes in the plan of instruction in accordance with changing educational theories and with the growth and enlarging scope of the Hospitals and the School of Medicine.

In 1934 the length of the diploma course was increased to thirty-six months and the course was enriched by an elective affiliation for field work with the Visiting Nurse Association. The degree course was radically changed in plan and content by 1945 and may now be completed in four and one-half years. The summer sessions formerly devoted to preliminary work in Nursing Arts were changed to required courses in the College for Women. The clinical period was lengthened from twenty-four to thirty months, thus making possible better correlation of subjects and a wider experience in nursing practice. One of the most significant changes in both courses was coincident with the addition of the Psychiatric Unit in 1948. In anticipation of the excellent teaching facilities of that Department, the first two years of the School curriculum were altered in 1946 to give basic preparation for the three months of instruction and practice of psychiatric nursing in the third year. Since 1940 the Commencement ceremonies of the University have included the graduating classes of the diploma courses in the School of Nursing.

The enrollment which grew slowly prior to 1940 was at capacity level during the years of war when a large percentage of the students were members of the United States Cadet Nurse Corps. The largest recorded registration was 325 in April, 1945. An addition to Helen Wood Hall with accommodations for thirty students and one classroom was constructed in 1944. Two vacant hospital divisions in Wing Q were also used to provide more rooms for student nurses.

The School of Nursing was well represented in all theaters of war. Out of the 500 alumnae in 1945 there were 79 who had joined the Nurse Corps of the Army, Navy, or Air Force. One of these attained the rank of lieutenant colonel.

The Department of Nursing Education of the University School of Liberal and Applied Studies has been allied with the School of Nursing since 1941. Graduate nurses carrying on studies leading to the baccalaureate degree come here for field work in operating room technique and obstetrical nursing, and for practice in teaching and supervision.

An Advisory Committee for the School of Nursing was requested by Miss Wood in 1927. The Board of Trustees granted the request and President Rhees appointed a committee which was enlarged in 1944 by appointments made by President Valentine. The constant interest and support of this Committee has been a strong factor in the growth of the School.



Staff Dining Room—Busy Lunch Hour.

Miss Helen Wood provided a sound foundation for the future development of the School and remained Director of the School of Nursing until August, 1931. At the suggestion of the Alumnae Association, her work has been commemorated by naming the Nurses' Dormitory "Helen Wood Hall" in her honor. Miss Wood was succeeded by Miss Clare Dennison, under whose skilled direction this School has greatly increased its scope and activity.

In this centennial year of the University, the School will have graduated 1000 students. These graduates are engaged in many fields of private, public, and institutional work. The present enrollment is 147 in the diploma course and 100, including 43 in the freshman and sophomore years of college work, in the degree course.

### *Dietary Department*

MISS GRACE CARDEN, of the Peter Bent Brigham Hospital, who was appointed Chief Dietitian late in 1924, began work in August, 1925, as one of the little group of charter members temporarily housed in what is now the Animal House. Her department was already in action, with five employees, before the opening of the Hospital. Miss Carden retired in

July, 1946, and was succeeded by Miss Gwendolyn Taylor.

The Diet Laboratory for teaching nutrition and cookery to student nurses was opened in late January, 1926. A postgraduate course for student dietitians was first opened in the fall of 1927, with a six months' course, later increased to twelve months. The course graduated 41 pupils during the period 1927 to 1936, when it was discontinued.

The first request for services in the Out-Patient Department came in the spring of 1927. Since that time two dietitians have attended the Diabetic Clinic regularly each week. In addition, for the past year a dietitian has been available daily for consultation in the Out-Patient Department.

With the opening of Wing R, a variation from the usual type of hospital food service was introduced. Patients are served meals in an attractive dining room by waitresses.

A central "nourishment kitchen" has been established from which all divisions receive between-meal beverages at specified times. The Dietary Department now supplies ice cream for all food service units in the University.

The Dietary Department staff has increased from 1 to 9, the employees from 5 to 71, and the number of meals served daily now averages 4,500.



Student Lunch Room—Bill's Snack Bar.

### *Out-Patient Department*

ON FEBRUARY 15, 1926, the Out-Patient Department, in charge of Miss Hanna Peterson, opened its doors to the public. One patient was waiting outside as the key was turned in the door. He had come early, he explained, to avoid the rush. In the course of the day, six patients were admitted. The admission of patients, including the work now done by the cashier, was managed by one nurse on the ground floor. In the beginning, clinics were held only by the four general services, Medical, Surgical, Pediatric, Obstetrical and Gynecological. Other special clinics were soon added until there are now 44 regularly scheduled general and special clinics.

The census of the Out-Patient Clinics rose from the 6 patients on the first day to an average of 400 during the depression years, but dropped markedly during the war and postwar years to a present average of 300.

### *Social Service*

MRS. RUTH T. BORETTI, of the Massachusetts General Hospital, arrived in November, 1925, and immediately began to organize the Social Service Department. Through her sound planning and thorough supervision, a firm foundation was created for a department that has experienced steady growth and development through successive years. During Mrs. Boretti's period here, the Department increased in size from one to eight workers.

With the opening of the Rochester Municipal Hospital in 1926, the Department of Social Service was faced with the challenge of proving the value of its work to that institution. There followed a five-year period of demonstration during which time the Strong Memorial Hospital financed the entire budget, although seventy-five percent of the work was done for patients who were either in or had been discharged from the Municipal Hospital. On January 1, 1931, the Municipal Hospital voluntarily assumed half of the expense of the department.

Following Mrs. Boretti's retirement and during World War II the staff became depleted as several members resigned to participate directly in the war effort.

In July, 1946, Mrs. Pauline Ryman, of Nebraska, a former member of the social service staff, was appointed to succeed Mrs. Boretti as Director. The staff gradually increased to its former strength and consists of twelve medical and psychiatric social workers, a case aide, and four stenographers. Referrals to public health nursing agencies are handled by the public health nurse co-ordinator and other members of the nurs-

ing staff. With the increasing interest on the part of the medical staff in the importance of social and emotional factors in illness, referrals to social service increased in volume. More time is now devoted to intensive case work with patients and their families in regard to problems created by or aggravated by illness.

At the time of the opening of Wing R it was decided that psychiatric and medical social service should be integrated into one department. Miss Marjorie Harle was appointed Chief Psychiatric Social Worker and has made sound and steady progress in developing a program of social case work in the Psychiatric Clinic. In October, 1947, a medical social worker was assigned to Edith Hartwell Clinic and in August, 1948, a medical social work position was created on the Cancer Research Project. There are now four psychiatric social workers, one medical social worker each on Medicine, Surgery, Orthopedics, Gynecology-Obstetrics, Pediatrics and Cerebral Palsy and a case aide who assists on the Medical Service. In 1949 a new project was developed to provide medical social services to outside agencies. Miss Mildred Mason, a former staff member, was appointed to supervise medical social services at Edith Hartwell Clinic and to act as medical social consultant at the Cerebral Palsy Center and Rochester Rehabilitation Center.

The staff members have continued through the years to participate in the teaching of student nurses. The teaching in psychiatry has tended to stimulate the medical students' interest in social and emotional factors in illness and as they move into more responsible positions they initiate frequent requests for social service to the patient.

The Department has been used occasionally by colleges for training in the preclinical aspects of social work and both graduate and undergraduate students have been assigned here for field work of this type.

### *Strong Memorial Aide Services*

THE Strong Memorial Aide Services had their beginning in August, 1926, when a group of doctors' wives organized a small library, in a corner of the Medical Library, from which books were taken on carts to the patients in the Hospitals. The value of this service was demonstrated by the rapidity of its growth. By 1933, after several moves, a fine library off the main lobby was established, and a paid librarian put in charge to work with the increasing number of volunteers. These library aides visited the divisions daily, supplying adult patients with books and magazines. Soon there was a need for a similar service for the children. In addition to books, magazines and puzzles, rubber dolls were given out. This service has also grown until now the children's library has its own



corner and a group of carefully selected volunteers under its own chairman. The library provides magazines for the tables in the lobbies, waiting rooms, solaria and clinics. The library is open to staff and employees as well as to patients. Except for the salary of the Librarian, the Patients' Library is supported by the rental of radios to the patients and by gifts.

The next volunteer service started in 1927, when groups of women organized to make surgical dressings and supplies for the Hospital. One of the first of these groups is still working, the Schaffer Guild. Now there are over 100 Surgical Supply Aides who have together given as many as 12,000 hours of work in a single year.

Since 1936 many volunteer services have been developed. Aides have helped in the clinics and Recreational Craft Aides have provided sewing, embroidery and knitting for the women patients. Each year at Christmas time, a sale of the completed articles is held, thus making the craft service self-supporting. The Plant Service was started for the purpose of beautifying the solaria and corridors with plants and vines. Volunteers from The University of Rochester Garden Club have charge of the work.

The war years brought many new duties to the volunteers and a great increase in numbers. Seven hundred and fifty volunteers, 150 of whom were Red Cross Nurses' Aides and 75 volunteer professional men, gave to the Hospital over 30,000 hours of service during a single year. At this time Flower Aides were organized to deliver all plants and flowers sent to the patients. Hospitality Aides began helping at the Information Desk during visiting hours. Another group of women worked in the division kitchens, others in the blood bank, post office, and wherever there was a need.

In 1947 a Recreational Craft Group for the children started to function. These aides work with the nurses on the children's division, helping to provide suitable recreation—telling stories, reading, playing games, etc. Also helping in this work is a group of business men who give an evening each week bringing movies and various types of entertainment to the children.

The entire Volunteer Service in the Hospital is directed by an Advisory Board made up of a General Chairman and the Chairman of each of the various services. The following have served as Chairmen: Mrs. George W. Corner, 1926-28; Mrs. Alice Peck Curtis, 1928-35 (Mrs. Fred S. Welsh serving as Acting Librarian from 1930-32); Mrs. Donald Kimball, 1935-39; and Mrs. Hettie L. Shumway from 1939 to the present time.

Up to July, 1933, the work had been carried on entirely by volunteers, but thereafter paid librarians have been in active charge under a volunteer chairman. The following have so served: Miss Helen H. Allen (Mrs.

Thomas Forbes), 1933-37; Mrs. Clara Stimson, 1937-42; and Mrs. Ruth D. Runnells, 1942 to the present time.

### *Physiotherapy Department*

THIS Department has seen much growth both in physical equipment and in the number of patients treated. At first all physiotherapy treatments were given in the divisions. Soon, however, it became necessary to equip a special department to which patients were sent not only from various divisions of the Hospital, but also from the Out-Patient Department. The increased number of patients with poliomyelitis particularly during the years 1944 and 1945 added much to the work of the Department.

Miss Mildred Shepard (Mrs. Einar Lie) was Chief Physiotherapist from the opening of the Department in 1926 until her resignation in 1935. Miss Marion R. Davis, her First Assistant and successor, continues in charge. Mrs. Kathleen Wingate, Assistant Physical Therapist, left in 1947 to take charge of physical therapy at the Edith Hartwell Clinic and the staff now consists of eight, including Dr. Louis A. Goldstein, who was appointed Medical Director of the Department in 1949.

### *Anesthesia*

THE Anesthesia Department in January, 1926, started with one Nurse Anesthetist, Miss Gertrude Gerrard. Following her resignation two years later, Miss Marjorie Wiedrich became Chief Anesthetist and at this time the staff had increased to four anesthetists.

Shortly after Miss Wiedrich's death in 1933, Miss Miriam Shupp was appointed Chief Anesthetist. Miss Shupp was succeeded by Mrs. Helen Geiss in 1945 and the personnel has gradually increased until at present thirteen nurse anesthetists are employed.

During the year of 1926, 1,351 anesthetics were given, including spinals, caudals and locals. In 1949 over 8,000 anesthetics were administered.

### *Personnel Office*

EMPLOYMENT for the Hospital was handled originally by department heads, and the records were kept in the Director's Office. Later the responsibility for employment and personnel records was transferred to the Purchasing Department. In 1940, Mrs. Clara A. Stimson, Secretary to Volunteer Aides in the Patients' Library, took over interviewing and

placement on a part-time basis. In 1941, this developed into a full-time personnel program with the responsibility of keeping all departments of the Hospital and Medical School staffed with non-professional personnel.

The Department was expanded on February 1, 1949, to handle placement and personnel records for non-academic employees of all the divisions of the University. At this time the Department moved to larger offices in Wing Q. The present staff consists of the Personnel Director, two assistants and three secretaries.

The functions of the Department have grown from simple placement routine to include pre-placement physical examinations, complete personnel records on all employees, exit interviews, periodic statistical reports to the Hospital and other units of the University, and other activities currently recognized as good personnel practice.

### *Admitting Office*

THE record of this office, in charge of Miss Gertrude DeLaney, 1925-26; Miss Amy E. Birge, 1926-29; Miss Elizabeth D. Goldthwait, 1929-46; and Miss Nina Hommel since 1946, is one which conceals beneath an exterior of apparently quiet routine, an endless series of human problems. Here is the first point of contact with the Hospital for many patients and their relatives and the last contact as the patient returns to his place in the community. The files of this office could contribute many dramatic pages to this history, but since they are confidential, it can only be recorded that there are over 36,000 admissions and discharges each year. In addition to the Chief Admitting Officer, there are five executive assistants and a secretary who now provide "round the clock" admitting service.

### *Business Office*

MR. LEROY E. AGNE began in December, 1925, to organize the Accounting Department which was opened for business on January 4, 1926. This Department is responsible for the accounting of the Hospital and Medical School together with the prorating of costs between Strong Memorial Hospital and Rochester Municipal Hospital, the City being charged for the care of patients on a patient-day basis in the latter institution. The intimate relationships which exist between these institutions and between the School and Hospital present problems in accounting both unique and interesting. This Department also has the accounts for the Edith Hartwell Clinic at LeRoy, New York, the new Wing R, the Rochester Health Bureau Laboratories and many different research funds.

About 1,500 persons are on the lists of the payroll department and the annual payroll approximates \$3,000,000. The office personnel consists of twenty-one employees.

### *Purchasing Department*

THE first purchasing for the new University of Rochester School of Medicine and Dentistry and Strong Memorial Hospital was accomplished through Dr. Faxon's office by use of a simple system of formal purchase orders. On April 1, 1925, the Purchasing Department for the new unit was put into operation with Mr. Warren W. Irwin as Purchasing Agent and Miss Margaret C. Brown as Secretary. They are still in the Department; Mr. Irwin as General Purchasing Agent and Miss Brown as Assistant and Office Manager.

Centralized purchasing for the entire University was put into effect in May, 1940. The first office of the Department was in the present Animal House, the second in a small space on the ground floor of Wing J, the third just off the lobby of the Hospital when it opened. For the last ten years, the Department has occupied its present location on the ground floor of Wings J and G, with storerooms in the basement of Wings Q and R. Thousands of separate items are carried in stores and the card record of purchases shows over 12,000 items. A complete perpetual purchase and stores record is kept by the Department at all times.

A Printing Department was established in 1929 with two small machines and was located in a corner of the storeroom. Today it occupies a new location in the basement of the connecting link between Wings Q and R. It employs four people and does printing for all departments of the University.

The Purchasing Department has grown from the original two people to 25. The work of the Department increased enormously as centralized purchasing went into effect and as World War II broke and brought on its governmental rationing and research programs. Purchasing by the department has developed from a few thousand dollars to over one hundred thousand dollars per month.

### *Engineering Department*

THIS Department, which until 1948 was called the Maintenance Department, was supervised at first by Mr. Jacob Krockenberger, Chief Engineer of the Heating Plant. As the institution grew, a separate department became necessary and Mr. Albert J. Whalen was appointed Maintenance Chief in 1925. He left in a short time and Mr. Krockenberger

again took over until 1929, when Mr. Charles F. Albert was appointed Maintenance Chief. He resigned in 1947 to take the position of Maintenance Chief at the Edith Hartwell Clinic in LeRoy, and was succeeded by Mr. John Eichner.

At present the staff consists of 30 men who are responsible for painting, electrical work, plumbing, sheet metal work, carpentry, machine shop, grounds, elevators, refrigeration, and air conditioning.

In addition to service, maintenance and repairs, the shops have built most of the laboratory furniture and a great deal of apparatus used in the Medical Center.

### *Security Department*

MR. HAROLD DUERR was appointed as the first Guard in August, 1941. The staff now consists of four Guards under his direction.

### *Maintenance Department*

THE Housekeeping Department was organized in December, 1925, under the direction of Mrs. Jane B. Armstrong. In August, 1948, due to the growth of the Medical Center and the increasing demands on the Department, the name was changed from Housekeeping to Maintenance and placed under the direction of a Chief of Maintenance, Mr. Charles Hess.

Since 1936 the duties of the Department have been considerably expanded and the floor area to be cared for has increased 30%. Over the same period the personnel of the Department has increased 26%.

The following have held the position of Housekeeper at various times: the late Mrs. Blanche E. Woodman, 1926-31; Miss Florence Schafer, 1931-45; Mrs. Elizabeth Lytle, 1945-46; and Miss Anna Uhlman, 1946-49.

### *Laundry*

FORMERLY a subdivision of the Housekeeping Department, the Laundry has been a separate entity for over fifteen years. On April 1, 1946, Mr. Harry D. Meech retired as first Manager of the Laundry and was succeeded by Mr. Alfred Stokes.

Since 1936, the number of personnel in the Laundry has increased from 24 to 41 and production has increased from an average of 1,500,000 pounds per year to 2,360,000 pounds per year.

In the latter part of 1946, old equipment in the Laundry was replaced by new machines of more efficient design and larger capacity, and an additional dryer was added to the equipment.

## *Pharmacy*

THE Department of Pharmacy was organized in 1925 with the appointment of Mr. Andrew W. Nixon as Chief Pharmacist and was opened for business on January 4, 1926. When Mr. Nixon retired in September, 1940, Mr. Richard Grant was appointed to replace him and continued in charge of the Department until December, 1947. Mr. Grover C. Bowles is now Chief Pharmacist.

This Department has expanded rapidly during the years to keep pace with the growth of the Medical Center and the development of chemotherapy has greatly increased the importance of a well-integrated Pharmacy Department.

In addition to the 60,000 prescriptions filled annually, the Pharmacy manufactures many of the common stock preparations and serves as an information center for the medical and nursing staffs.

The present staff consists of five pharmacists and three assistants. In 1950 Mr. Bowles was appointed Instructor in Pharmacology (Pharmacy) so that his services could be utilized in the teaching of pharmacology to the medical students.

## *Record Room*

THE record system of Strong Memorial Hospital and Rochester Municipal Hospital is remarkable for its high degree of simplicity and centralization. Using the Unit System, all records pertaining to a given patient, whether originating in the House, Out-Patient Department or in the Laboratories, are kept under one number and are bound in a single folder. Several thousand patients' records have already gone into a second volume but all records are thus instantly available.

The first Medical Records Librarian was Miss Marguerite Heath (Mrs. John R. Kennedy), 1925-26; the second, Miss Lucille Dunham (Mrs. Lynn Nichols), 1926-38; followed by Miss Hannah Kraus, 1938-48. Mrs. Anne Schmidt, who has been in charge since September, 1948, has a staff of 34 people in the main Record Department, with an additional staff of two people in the Wing R Medical Records Department. This staff is responsible for the work involved in the care of the records of 307,500 patients, to which are added an average of approximately 10,362 per year.

## *Public Relations and Information Desk*

In the early years of the Hospital, the Information Desk was a separate



department, headed successively by Miss Marie F. Powers, 1925-26; Miss Mildred A. Mason (now a member of the Social Service Department), 1926-29; Miss Frances Channell (Mrs. Ralph Steele), 1929; Miss Mary J. O'Malley, 1929-40; and Mrs. Mildred David, 1940-45. In the fall of 1945, the Information Desk staff, messengers and elevator operators, numbering 21, were placed under the supervision of the Public Relations Director, Miss Rebecca Keene, in an effort to co-ordinate the work of the employees who first meet the public.

The work of the receptionists is varied and includes handling the visitors to patients, answering questions of families of patients, contacting the operating room, delivery room, and recovery room, finding transient rooms for relatives of patients, and with the help of the Public Relations Director, working with the press and photographers, planning tours of the Hospital for outside groups as well as orientation tours for employees of the Medical Center.

The receptionists take care of transmission of calls for the part-time staff through the doctors' register, make discharge and personal calls for patients, arrange bus, train, and plane transportation for patients and answer all types of inquiries.

A complete file of patients is kept at the desk, which is open from 8:00 a.m. to 9:00 p.m. daily.

Patients who are admitted during the day are conducted to the divisions by the messengers, who also deliver packages, telegrams and mail to the patients.

The atmosphere of the main lobby is made more homelike and attractive by the paintings loaned by the Memorial Art Gallery. On cold, wintry days the fireplace is also a source of comfort to anxious relatives of critically ill patients during long hours of waiting for news. Receptionists make a special effort to relieve such people of their anxiety and apprehension, and a special room is provided for them off the lobby where they may talk privately with doctors.

### *Telephone Office*

THE switchboard, from the time of its installation in 1925 until 1949, was presided over by Miss Mildred I. Payne, Chief Operator, who saw the telephone system grow from a small black box with 10 stations to a four-position board of 400 stations and 15 operators. Miss Payne, who died August 11, 1949, was succeeded as Chief Telephone Operator by Miss Elsie Ramazetter, who joined the staff in January, 1926. The business of this office has increased steadily with the growth of the Center and the staff of 15 operators now handles 2,000,000 calls annually

through 400 stations. This work will be facilitated when dial equipment becomes available.

### *Post Office*

THE post office service was provided in the earliest days by a letter box on a veranda on South Avenue, nearly a mile from the School and Hospital grounds. A newly arriving staff member was solemnly given the key to this box and assigned the duty of carrying the mail in his private automobile, until he could foist the job upon the next arrival. Drs. Faxon, Whipple, Bayne-Jones and Corner were thus the first letter carriers. When the Hospital was opened, the Accounting Office became the post office, the hospital truck carried the mail from the City Post Office, and a full-time letter carrier was appointed. In 1932 a separate room for the post office was set up with Miss Frieda Gutmann in charge. It was called "Crittenden Station" until 1949, when the name was changed by the Post Office to "P. O. Station Number 3." The volume of incoming and



Colonial Corner—Coffee Shop.

outgoing mail has increased until now the monthly average of outgoing mail alone is more than 100,000 pieces.

Mrs. Lurena Davis was in charge of the office from 1945 to 1948, and Mrs. Thelma Smith during 1948. Miss Gutmann was on part-time duty due to ill health from 1945 to 1948, when she retired. The present staff consists of three, with Mrs. Mildred Place in charge.

### *The Colonial Corner*

By 1940 the Medical Center had grown to the extent that there was a definite need for a coffee and gift shop. On December 4, 1941, construction of this facility was begun on the main floor of Wing B corridor and on May 25, 1942, the Colonial Corner Coffee and Gift Shop opened for business. Its first Manager was Mrs. Zelma Nixdorf. Mrs. Marjorie McConnell was Manager from 1946 to 1947; then Mrs. Arlene Summars became Manager. Miss Dorothy Norton succeeded Mrs. Summars in August, 1949, and is still in charge.

The Colonial Corner is for the use of relatives and friends of patients, members of the staff and personnel. All proceeds realized from the operation of the Colonial Corner go towards the care of indigent patients.

## **Rochester Health Bureau**

ALBERT D. KAISER

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THE Rochester Health Bureau was created in 1900 in the Department of Public Safety. Prior to that time the community responsibility for the health of its citizens rested in official boards of health appointed in the early days of epidemics. Though no official relationships existed between the Rochester Health Bureau and the University until the Medical School was opened, outstanding science teachers at the University were actively identified with the expanding health services in Rochester. Dr. Samuel Allan Lattimore, an eminent chemist, contributed services and valuable advice in obtaining a community water supply; Dr. Herman LeRoy Fairchild, an outstanding geologist, was regularly consulted on problems of water supply and drainage; Dr. Charles W. Dodge, Professor of Biology, was instrumental in developing the first laboratory activities of the Health Bureau and later became its director. The establishment of the Medical School in Rochester opened the way for closer cooperation between the official health agency and the University of Rochester.

Following the significant medical discoveries during the first two decades of this century, came a period of community organization for supplying more effective health measures to its citizens. The mobilization of a vast army during the first World War pointed the need for greater community health services. The Rochester Health Bureau, along with similar organizations in other cities, was eager to develop more efficient and useful services to the community. Affiliation in certain departments with the new Medical School offered exceptional opportunities to develop the laboratory and hospital services. Fortunately the city officials and particularly Dr. George W. Goler, who was then the Health Officer, recognized the value of such an affiliation to the City of Rochester and to the University.

For some years the care of communicable diseases, which were much more prevalent than they are today, had been the responsibility of the city. Such patients had been cared for in the old Municipal Hospital on Waring Road. Because of inadequate hospital facilities for the care of the indigent sick, the City of Rochester planned to construct a new modern



STANHOPE BAYNE-JONES  
*Professor of Bacteriology 1923-1932*



GEORGE WASHINGTON CORNER  
*Professor of Anatomy 1922-1940*



STAFFORD LEAK WARREN  
*Professor of Radiology 1939-1946*



GEORGE PACKER BERRY  
*Professor of Bacteriology 1932-1949*

hospital for all types of patients not able to go to the existing hospitals. As the plans for the new medical school and new hospital unfolded, Dr. Goler, with the support of the city officials, proposed to erect the new Municipal Hospital adjoining the proposed University hospital. This significant decision to integrate the medical services supplied by the city with those of a new medical school and hospital was a departure from the usual course taken by municipalities. The arrangement (described elsewhere, page 18) was mutually acceptable to the health authorities of the city and to the officials of the University and the Medical School. Under this agreement a 250-bed general hospital was made available to the community in which the medical and nursing and other professional personnel services were to be supplied by the University. A satisfactory contract was entered into which for a period of twenty-five years has operated successfully for all concerned. Great credit is due to Dr. George W. Goler, representing the City of Rochester, and to Dean George H. Whipple, representing The University of Rochester.

The rapidly expanding need for more and better laboratory services for the practicing physicians of Rochester became evident. With the same foresight as was shown in the building of a new Municipal Hospital, Dr. Goler was instrumental in effecting a plan whereby the Health Bureau Laboratories would be incorporated in the University Department of Bacteriology. Under the able direction of Dr. Stanhope Bayne-Jones, Professor and Head of the Department of Bacteriology, an arrangement was made which parallels the incorporation of the Rochester Municipal Hospital as an integral part of the University Hospital and Medical School plant. This arrangement has proved to be one of mutual advantage, giving to the city the advice and consultation of a well-equipped research laboratory while providing the school with an abundance of material for practical study. When the Medical School building was completed twenty-five years ago, the Health Bureau Laboratories were moved from inadequate quarters to the present quarters in the Medical School adjacent to the Department of Bacteriology. The overall administration of the laboratory activities was under the direction of the Professor of Bacteriology. This arrangement was highly approved by the Division of Laboratories of the New York State Health Department under whose jurisdiction such laboratories must operate.

At first the official health laboratory was concerned chiefly with diagnostic services required by physicians in the field of bacteriology and with the bacteriological and chemical analysis of water and milk. The scope of the activities soon increased, for within a year serological examinations were included in the routine tests. After completing her training in serological techniques at Albany, Miss Hester A. Austin



carried out at the Medical School all the Wassermann tests which had formerly been sent to the State laboratory at Albany. Under the direction of Dr. Bayne-Jones a competent staff of assistants and technicians was trained to carry on the varied activities of the laboratory. Advances in the therapy of a number of diseases required additional laboratory aids such as the rapid typing of pneumococci for serum treatment. The excellent facilities available at the Medical School made it possible for the Health Bureau Laboratories to adopt promptly these approved diagnostic services and make them available to all of the physicians of the community.

Dr. Bayne-Jones remained Director of the laboratory until his resignation in 1932 when Dr. George Packer Berry became Professor and Director of the laboratory. The increasing responsibilities of laboratory direction required more supervision of the routine procedures. For a year Dr. James Kennedy was given the responsibility of active administration of the laboratory. He was succeeded by Dr. Charles M. Carpenter who assumed the full responsibility of the routine running of the laboratories. Matters of policy, particularly those which concerned the relationship of the University and the City of Rochester, continued to be administered by Dr. Berry, Professor of Bacteriology.

The demands on the laboratory increased considerably during the last ten years. The mobilization of troops and the intensified search for the presence of syphilis in the community required additional personnel in the Department of Serology. The return of the men in the armed forces added considerably to the routine tests in the fields of bacteriology and parasitology. The laboratory was prepared to make Rh determinations on blood samples as soon as the technique was considered satisfactory. Although the laboratory is not primarily concerned with research work, it has often provided investigative material for members of the staff of the Medical School and in many instances these studies have proved highly productive. This association with the progressive workers in the Medical School has given the city laboratory prompt and efficient leadership in providing new aids for the medical practitioners.

When Dr. Carpenter moved to California in 1947, Dr. Edward P. Offutt was placed in direct charge of the laboratory under Dr. George P. Berry's supervision.

During 1949 a new arrangement was made by the City of Rochester with the New York State Health Department permitting financial aid from the State in the operation of the laboratory. A Board of Managers for the laboratory was appointed by Mayor Samuel B. Dicker. It is the responsibility of the Board to advise in the operation of the laboratory. This new Board, consisting of Dr. G. H. Whipple, Dr. A. D. Kaiser, Dr.

Ellis B. Soble, Dr. Charles R. Allison and Mr. Thomas R. White, approves or disapproves any program developed in the laboratory. The appointment of this Board in no way abrogates the existing arrangements between the City of Rochester and the University, but it provides a channel through which the State Health Department can keep in touch with the laboratory. Increased funds have become available, permitting extension of services. Within the year, Dr. Jacob Koomen has been appointed to develop facilities and, ultimately, diagnostic services in the field of viral diseases. The over-all administration of the laboratory has been tentatively placed in the hands of Dr. Howard Slavin until a successor to Dr. George P. Berry is appointed.

The examinations of all kinds numbered about 17,000 per year when the Health Bureau Laboratory became a part of the Department of Bacteriology. There has been a steady increase in the volume of work done. In the year 1948, 274,740 examinations were made. The joint activities of the city and the University have made possible a fairly low unit cost per test to the city, which was 19 cents in 1948 as compared to 22 cents in 1926.

Since 1946 closer co-operation has been noted between the Health Bureau and the Medical School in other fields. Nurses in training at the University Hospital receive some practical experience as observers in public health nursing activities under the direction of Miss Katherine C. Neill, Director of Health Bureau nurses. From time to time students are taken to the Health Bureau for practical demonstrations and on field trips to see at first hand certain sanitary installations, such as water supplies, sewage disposal, and dairy farms.

Services for which the Health Bureau is officially responsible, such as venereal disease control, tuberculosis control, school health services and the rehabilitation needs of children, are closely integrated with the hospital services at the Strong Memorial and Municipal Hospitals.

This integrated service is of inestimable value to the citizens of Rochester and brings to the Medical School a better appreciation of how medical science must be applied to a community.

## Department of Anatomy

KARL E. MASON

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THE Department of Anatomy with an initial staff of three (Dr. George W. Corner and two of his former students at Hopkins, Dr. Franklin Snyder and Dr. Alan Guttmacher) began work in September of 1924 in temporary quarters, since known as the Animal House, moving later to the main building where organization and preparation continued for admission of the first class of medical students in September of 1925. During the succeeding fifteen years, under the able direction of Dr. Corner, teaching and research activities of the Department expanded in a healthy and vigorous manner, along with the inevitable succession of new staff members among whom may be mentioned Drs. W. M. Copenhaver, J. C. Wells, Dorothy Anderson, C. C. Thomas, Willard M. Allen, R. K. Burns, A. J. Schneider, E. B. Ruth, W. K. Smith, Edward Parnall, T. L. Peele, and C. E. Tobin. Contributions of Dr. Corner to the planning and organization of the Medical Library, and to general interests in medical history, also warrant special comment.

Although the scientific work of the Department followed several definite lines, including experimental embryology, neurology, comparative anatomy, endocrinology, and comparative histology, the Department became especially recognized for investigations on the physiology of reproduction, due largely to the zeal and accomplishments of Dr. Corner, Dr. Allen, Dr. Burns, and the many medical students who were stimulated to carry out independent research under their direction. As a result, the Department was frequently honored by the presence of visiting investigators from various countries. Among these were: Dr. Jessie King, Baltimore; and Dr. Sidney Asdell (Rockefeller Fellow), Cambridge, England, 1926; Dr. Reginald Harris, Cold Spring Harbor, L. I., 1927; Dr. R. K. Meyer (National Research Council Fellow), 1930-32; Dr. Seiichi Saiki (Rockefeller Fellow), Tokyo, Japan, 1931; Dr. E. Bunster-Montero (Guggenheim Fellow), Santiago, Chile, 1931-32; Dr. F. Hoffmann (Rockefeller Fellow), Düsseldorf, Germany, 1934; Dr. Graham Weddell (Commonwealth Fund Fellow), London, England, 1935; Dr. S. R. M. Reynolds (Guggenheim Fellow), New York, 1937-38; and Dr. Inez Allende, Córdoba, Argentina, 1940. Approximately 195 published reports rep-



Professor Mason in the Histology Classroom—1950.

resent the research activities of this 15-year period, culminating in the departure of Dr. Corner and Dr. Burns to become, respectively, Director and Research Associate of the Department of Embryology of the Carnegie Institution of Washington at Baltimore.

Since 1940, Dr. Karl E. Mason has served as chairman. The prewar years saw only minor changes in departmental functions and the addition of new instructors to the teaching staff. These individuals, with the year of their appointment, are as follows: Drs. Victor M. Emmel, 1940; George C. Whitney, 1940; W. Lane Williams, 1941; James G. Wilson, 1942; Richard J. Blandau, 1942. Drs. Whitney and Williams served for only one year. Dr. Blandau resigned in 1949 to become Associate Professor of Anatomy at the University of Washington Medical School in Seattle. Despite many problems relating to increased size of classes, accelerated curriculum, and retention of personnel during the war period, it was fortunately possible to maintain intact a highly effective teaching staff (consisting of Drs. Smith, Tobin, Emmel, Wilson, and Blandau). During this period Dr. Emmel and Dr. Blandau carried on a program of part-time medical study, completing requirements for the M.D. degree in 1947, and 1948 respectively. Dr. Emmel was granted leave of absence during 1947-48 to complete his internship in medicine.

Each year has seen certain improvements in methods of instruction and in general approaches to the subject matter of the courses in Anatomy. Of the various teaching approaches tested, two of the most successful have been the introduction of an extensive series of clinics by members of the clinical staff representing the surgical and medical specialties, and regular instruction in radiological anatomy by members of the staff in Radiology. More effective correlation between the teaching of Anatomy and other subjects of the first two years of medical study, with a wider sharing of responsibility in the early orientation of the student during his first year of medicine, is being given particular consideration at the moment.

During the postwar period facilities were provided for 29 Veteran Post-doctoral Fellows, usually spending 6 months in Anatomy and 6 months in Pathology. They, together with 6 residents in Orthopedic Surgery serving similar periods of training in basic science, have contributed much to departmental activities and interests. The course in Applied Anatomy for fourth-year students, under the direction of Dr. Hrolfe Ziegler and Dr. John Schilling, has constituted a valuable phase of the teaching program. In the capacity of neurological consultant, Dr. W. K. Smith has extended departmental activities to the clinical services of the School and the Veterans Hospital in Canandaigua.

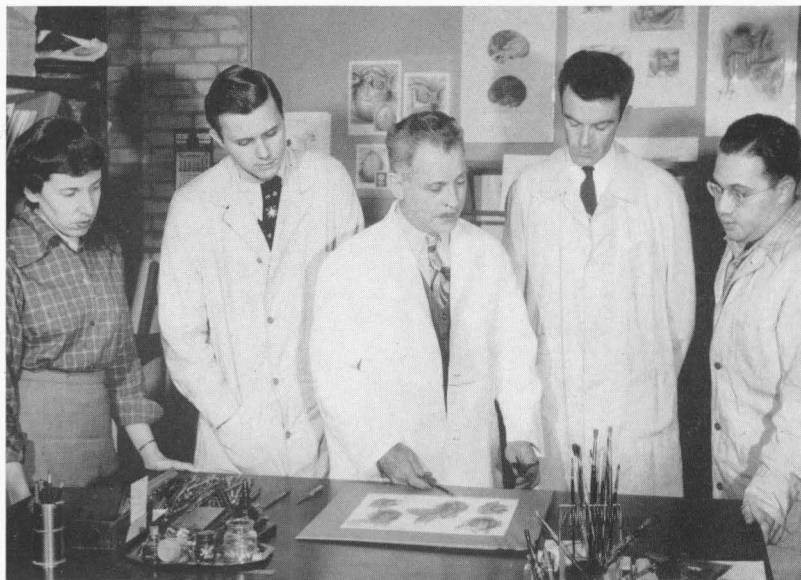
During the first 15 years of its existence the Department granted 7 M.S. and 2 Ph.D. degrees, three of the recipients being dental fellows. Encouragement of independent investigation on the part of a certain number of medical students, and also student fellows associated with the Department for a year of teaching and research after completion of their first year of study, was an especially important phase of departmental activities. Changes brought about during and after the war seriously hampered this program but favored increased emphasis in graduate training. The return of veterans previously denied the opportunity for graduate study, the increasing availability of grants-in-aid for assisting and promoting research by staff members, and the urgent needs for young teachers and investigators in anatomical sciences have been important factors in this altered trend of departmental functions. At present ten students are working toward the Ph.D. degree.

Diversity of research interests of staff members, with healthy overlap at the fringes and extensive collaboration with clinical departments in particular, have maintained a stimulating environment of scientific inquiry. Represented are investigations in the fields of applied gross anatomy, neurophysiology, embryological anomalies, histochemistry, vascular physiology, reproductive physiology, metabolism in prematures, histopathology, vitamin assay, and experimental nutrition. Studies re-

lating to vitamin E have constituted a major interest and have received generous support from the Nutrition Foundation and other sources. For a 3-year period during the war Dr. H. Dam of Copenhagen was associated with certain phases of this work, and an especially active center has been the chemical laboratory established with foresightedness in the original plans of the department. In co-operation with the Departments of Pediatrics and Medicine on a study of rheumatic fever in children, this laboratory now serves as a center for micro-assay of vitamins under the direction of Dr. L. J. Filer, who served for 3 years as Nutrition Foundation Fellow in Anatomy. Departmental research has also been strengthened and expanded during the past 3 years through collaboration with the Atomic Energy Commission on several programs of study. Some 95 published reports during the past 10 years cover these departmental activities, bringing the total contributions from the department to 290 for the 25-year period.

### *Medical Illustration*

IN keeping with the thoroughness of the early planning and organization, a medical artist, Mr. Natt Jacobs, had been selected and assumed



Mr. Natt C. Jacobs and the class in Medical Illustration—1950.



duties when the Medical School opened in 1925. Because of greater proximity to the operating rooms and anatomical reference materials, a studio was established in the Department of Anatomy rather than in an area adjacent to Medical Photography, as originally planned. In the exacting and effective manner of his noted teacher, the late Max Brödel of Johns Hopkins, Mr. Jacobs has since prepared more than 3,000 finished drawings, most of which have appeared in published articles from the various departments of the School. In addition, more than 1,000 sketches and drawings have been made and filed for matters of record and future use. He has also participated actively in the organization and activities of the Association of Medical Illustrators, organized in 1946.

It has long been felt that this School should participate in maintaining the Brödel tradition and play a part in the training of medical illustrators. In September of 1948 this became an actuality, in the organization of a three-year program in Medical Illustration under the direction of Mr. Jacobs. The ratio of applications received to applicants accepted rivals that relating to medical student admissions. Five highly qualified students were enrolled in 1948, and 3 more in 1949. These include 5 veterans. One of the large dissecting rooms has been converted into a training studio. The success of this venture is unquestioned and we anticipate promising futures for all candidates in training.

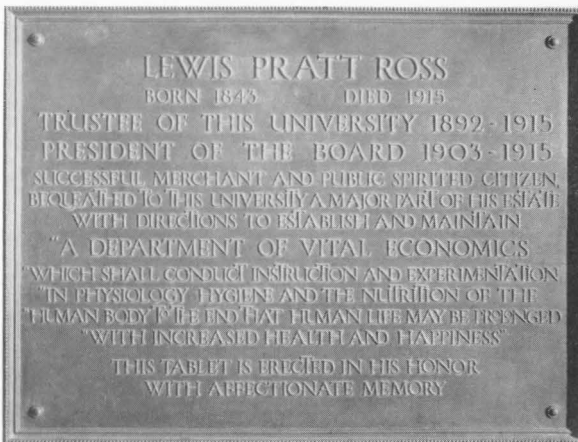
In these ways the School is receiving wider recognition for its contribution toward the development and maintenance of high professional standards in the field of Medical Illustration.

## Department of Physiology and Vital Economics

WALLACE O. FENN

WHEN the Medical School was opened in 1925, the Department of Vital Economics was already established here under the direction of Professor Murlin. When the new building was ready, the Department of Vital Economics was moved from its former quarters in Eastman Laboratory on the present Women's Campus to the fourth floor of the Medical School adjacent to the Department of Physiology, each department having the equivalent of two and a half wings. The Department of Vital Economics was so named in accordance with the provisions of the will of Mr. Lewis P. Ross who generously donated the money for its foundation. When Dr. Murlin retired in 1944, the two departments were combined as the Department of Physiology and Vital Economics, the latter name being retained in accordance with the legal requirements of the will of Mr. Ross.

Although the original Department of Vital Economics belonged strictly to the College of Arts and Sciences, it was housed with the Medical School for mutual benefit and, in accordance with the wishes of



The Ross Tablet and Dr. John R. Murlin, the first Director of Department of Vital Economics.

Dr. Murlin, it assumed responsibility for the teaching of vegetative aspects of physiology to the medical students. These included energy metabolism, digestion, absorption, nutrition, vitamins and endocrinology. This amicable division of the subject matter was in strict accordance with the respective interests of Dr. Murlin and Dr. Fenn. With the merger of the departments, the same subdivision of the field of physiology has continued and the courses in Physiology and in Vital Economics have remained substantially unchanged. Dr. Nasset takes chief responsibility for the course formerly given by Vital Economics.

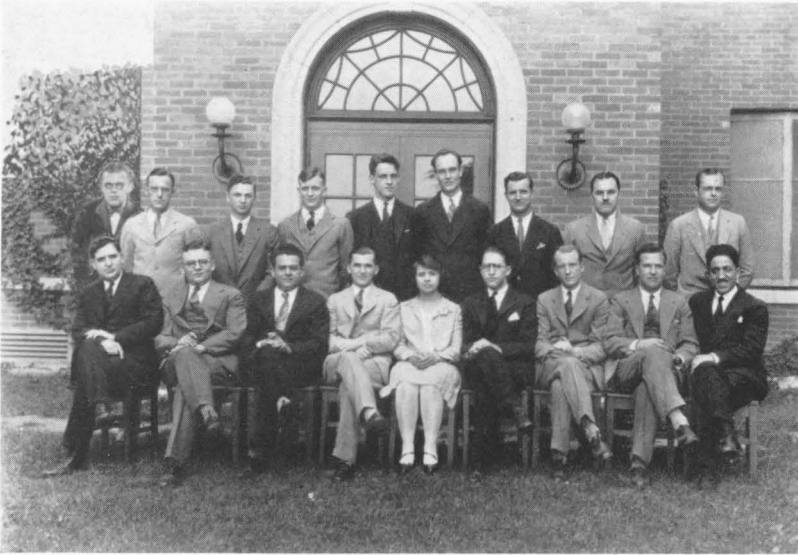
The combination of the two departments into one has effected some substantial economy in space and apparatus. A single seminar room serves the whole Department. The special library of the Department of Vital Economics has been retained but it has not been further expanded because the expense of trying to cover the wider range of interests of the combined Departments made this prohibitive. Other economies are also possible in that a single chemical storeroom and a single shop are used by the whole Department.

In 1949 Dr. Hermann Rahn was appointed Vice-Chairman of the Department with the special duty of supervising graduate student candidates for the M.S. and Ph.D. degrees in their relations to the administration.

There has been relatively little change in the senior personnel of the department during the 25 years. Drs. Fenn and Adolph have co-operated in the Department of Physiology during the whole period and Drs. Nasset and Kochakian started work in the Department of Vital Economics as graduate students in 1928 and 1933 respectively and have been with it ever since. The retirement of Dr. Murlin in 1944 fortunately did not terminate his connection with the department which he founded. He has continued his research work in an emeritus capacity and his successors enjoy the benefit of close association with him.

In 25 years, 220 different persons have been on the staff of the combined department in one capacity or another, as listed in the annual catalogues. Of these there have been 10 of professorial rank, 17 visitors from abroad, 31 postdoctoral fellows, 5 dental fellows, 18 student fellows (M.D. candidates), 40 who obtained the M.S. degree and 45 who obtained the Ph.D. degree. Of the Ph.D. graduates at least 15 have attained the professorial rank in some university. Of the 18 student fellows who interrupted their medical course to spend a year in research and teaching, at least 7 hold appointments in universities or research institutions. This is probably twice the percentage to be expected from the average M.D. 5 years or more after graduation.

The number of persons in the two departments combined has shown a



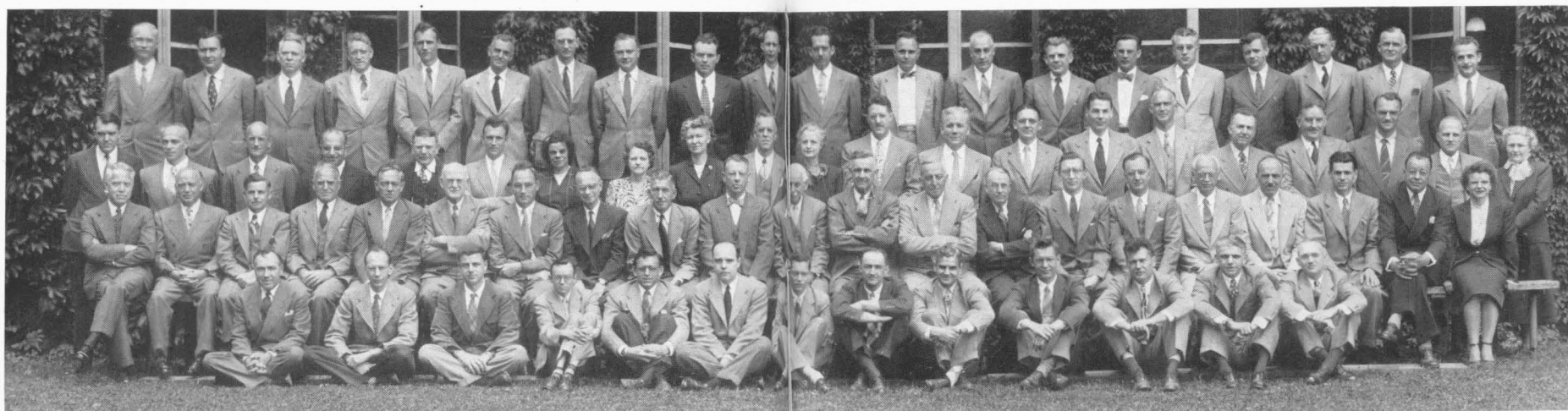
GRADUATES—JUNE, 1929.

*Standing:* P. G. Wickens, A. H. Hillman, J. D. Goldstein, D. J. Stephens, F. S. Hassett, H. Munster, D. O. Meeker, E. L. DuBois, J. W. Jameson. *Seated:* P. L. Harris, B. W. Knopf, J. P. Leone, J. B. Polansky, E. E. Emerson, J. Cowen, D. D. Posson, A. E. G. Ericson, P. F. Metildi.

steady growth during the years, the sudden increase after the war from 28 in 1946 to 48 in 1948 being particularly noteworthy. This was due to the return of men from the war and the increased amount of government financing which became available at that time. The increase in the number of young M.D.s who returned to the Department for additional training during this time represented a distinctly new development.

The total publications of the combined Department for the quarter century include 3 books by Dr. Adolph and 476 papers. Of the papers, there are 83 on nutrition, 20 on endocrines, 80 on digestion and metabolism, 60 on kidney function and water exchanges, 69 on muscle, 28 on nerve, 44 on respiration and 32 on miscellaneous subjects.

The financial support for the department has come chiefly from the University until recent years when fully half has come from outside sources. The Department of Vital Economics, prior to the merger, likewise obtained a considerable support from non-university sources. In all, there have been 18 grants from industries, 17 from governmental agencies and 18 from research institutions. Most of these grants have supported students in training for the M.S. and Ph.D. degrees who were



SENIOR STAFF—JUNE, 1949

*Top Row:* J. N. Stannard, A. B. Otis, M. L. Lerner, W. J. M. Scott, H. Rahn, L. A. Kohn, J. K. Scott, E. B. Mahoney, J. G. Wilson, V. M. Emmel, R. J. Blandau, G. P. Heckel, L. T. Steadman, E. H. Keutmann, H. E. Stokinger, W. H. Strain, H. B. Slavin, A. M. Wedd, F. Ford, C. E. Tobin. *Second Row:* R. A. Robinson, J. Adler, W. B. Hawkins, C. D. Kochakian, J. Glaser, J. A. Schilling, A. B. McCoord, E. E. Hawley, F. L. Haven, E. Lie, F. S. Robbins, L. E. Young, W. T. Pommerenke, H. W. Scherp, C. L. Yuile, N. L. Kaltreider, W. L. Bradford, P. H. Garvey, L. A. Goldstein, W. K. Smith, F. H. Parsons. *Third Row:* C. B. F. Gibbs, A. L. Parlow, E. J. Pammenter, W. W. Scott, W. O. Fenn, J. R. Murlin, E. A. Blair, R. P. Schwartz, H. E. Pearse, G. P. Berry, W. R. Bloor, G. H. Whipple, K. M. Wilson, W. S. McCann, E. H. Stotz, G. B. Mider, S. W. Clausen, G. H. Ramsey, H. C. Hodge, P. Guptill, E. M. Lipphardt. *Bottom Row:* C. H. Lauterbach, J. W. Hein, N. S. Simmons, R. F. Witter, L. L. Miller, W. B. Mason, S. L. Crump, E. P. Offutt, R. M. Allen, W. F. Neuman, A. Rothstein, C. P. Katsampes, J. W. Cooney.



GRADUATES—JUNE, 1949

*Top Row:* W. R. Stern, J. A. DeWeese, E. H. Church, J. C. Roberts, Jr., R. B. Rardin, M. L. Deakins, L. A. Nelson, H. M. Epstein, P. G. Gleason, L. G. Higgins, C. N. Luttrell, W. L. Saunders, J. D. Kepes, A. S. Ketcham, J. R. Leake, J. C. Hornberger, W. O. Robertson. *Second Row:* P. E. Reeves, R. B. Pfeffer, J. E. Hershey, J. L. Harrington, J. B. Slingsby, E. E. Ellis, F. E. Foley, C. C. Roosa, G. S. Harris, R. M. Lawrence, S. M. Frame, W. T. St. Goar, J. C. Wells, J. Alexander, W. D. Woods, T. H. Gilmore, F. M. Golomb, T. S. Lastrapes, R. Gramiak. *Third Row:* D. H. Gaylor, A. J. Grose, E. J. Eddy, A. Marsh, V. Van Geyt, V. E. Till, J. Kelly, R. S. Gosselin, R. E. Anderson, A. K. Leong, L. S. Baum, Dean Whipple, O. F. Thaler, R. B. Tobin, C. A. Lindstrom, W. Onest, I. C. Ellis, D. G. Lodico, H. B. Cantwell. *Bottom Row:* E. J. Towbin, W. C. Combs, R. D. Neubecker, M. L. Kelley, H. F. Knight, V. J. DeRisio, F. M. Muldoon, B. L. Till, J. K. Stevenson, D. E. Rowley, E. R. Kodet, L. S. Dickinson, B. T. Uyeno. *Not in picture:* T. B. Barnett.

able to use the work done as material for a thesis.

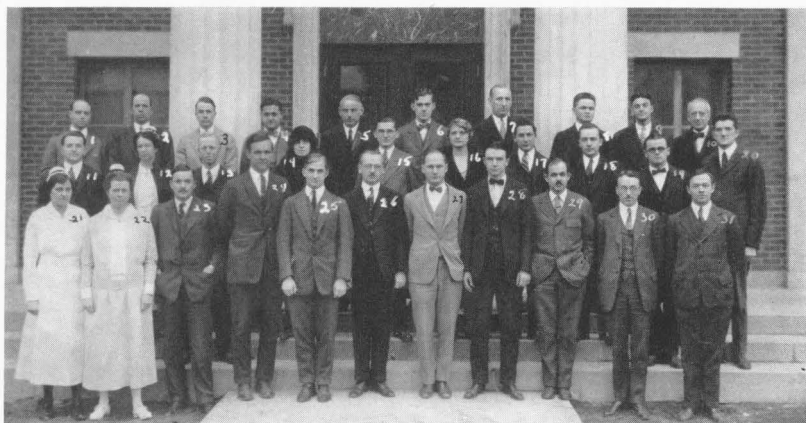
It is probably true that the teaching of physiology has changed as much as, if not more than, the teaching of any other medical subject. The laboratory work is still the main part of the course but the experiments have become more ambitious and the equipment more complicated. Group experiments have to some extent replaced individual experiments. Many more experiments are done on human subjects and experiments on frogs have become relatively few. Modern electrical techniques have replaced more cumbersome older methods. At the same time the lecture method has been retained largely because in this way it is assured that the newest developments in every part of the subject will be carefully covered each year by at least one member of the staff and formally presented to the students. In recent years increasing emphasis is being placed on the use of the library and in 1950, for the first time, arrangements were made to divide the time between biochemistry and physiology by whole days rather than half days so that the students could carry out their experiments in a more leisurely, thoughtful and thorough manner.

The Department of Vital Economics was set up with responsibility for the teaching of physiology in the College of Arts and Sciences. This responsibility was retained after the transfer of the Department to the School of Medicine and Dentistry and its merger with Physiology. At that time it gave two undergraduate courses, one in physiology under Dr. Nasset and one in biochemistry under Dr. Sealock. Subsequently, the latter was discontinued but the former retained, first under Dr. Kochakian and since 1944 under Dr. Adolph. This has served to some extent as a feeder for graduate students in physiology.

The training of graduate students for the M.S. and Ph.D. degrees represents an important part of the teaching effort of the Department. At the present time, there are over 25 such students registered in the Department. To meet this responsibility for advanced training in physiology, the Department has organized 5 seminar courses in Nutrition and Digestion, Endocrinology and Vitamins, Respiration and Circulation, Muscle and Nerve, and Body Fluids. Each course runs for one semester and carries two hours of credit. In addition, there is a weekly departmental seminar, and an interdepartmental seminar. Many of the students in Physiology also participate in seminars in Biochemistry and elsewhere.

During the early years the research work of the Department was related to the function of nerves and muscle and the distribution of electrolytes in the body under Dr. Fenn, and the water balance of the body including kidney function and the regulation of size under Dr. Adolph. Later Dr. Blair joined the Department and became the center of a group





SOME OF THE MEMBERS OF THE STAFF OF  
THE MEDICAL SCHOOL AND HOSPITAL, FEBRUARY, 1926

*From Left, Back Row:* T. A. Devan, N. W. Faxon, W. S. McCann, P. Jay, W. R. Bloor, F. F. Snyder, H. L. Darner, H. P. Smith, L. A. Kohn, H. A. Mattill. *Middle Row:* K. E. Birkhaug, Miss Helen Wood, S. Bayne-Jones, Miss Elizabeth Marsh, J. B. Polansky, Mrs. Frieda S. Robbins, B. A. Rogowski, W. M. Copenhagen, P. L. Gray, E. F. Adolph. *Front Row:* Miss Hanna Peterson, Miss Leone Ivers, G. W. Corner, Dean G. H. Whipple, J. J. Morton, S. W. Clausen, J. M. Parker, V. duVigneaud, R. P. Kennedy, C. A. Morrison, W. O. Fenn.

interested in electrophysiology. One member of this group, Dr. Alan Young, in 1940 built an ink-writing electroencephalograph with 4 channels and this served for some years as the only electroencephalographic center in western New York State. This Brain Wave Station, first under Dr. Hursh and later under Dr. Blair, recorded some 3,000 routine clinical electroencephalograms before the station was turned over to Dr. Romano and Dr. Engel of the newly-formed Department of Psychiatry in 1948. Still another aspect of the work of the Department was represented by Dr. A. M. Wedd, a part-time member who began in 1930 by visiting the Department once a week from Clifton Springs Sanitarium and later, after setting up an office in Rochester for private practice of cardiology, arranged to spend every morning working on the effects of various drugs on the function of the heart. The work is still continuing under a grant from the Public Health Service.

During the war a rather drastic modification of the research activities of the Department occurred. One group of workers under Dr. Fenn undertook to work on pressure breathing as a means of improving the oxygen supply of aviators at ceiling altitudes. This brought many new contacts in the Air Force which have continued to the present time, and this phase of the work of the Department, on problems of respiration,



chiefly under Dr. Rahn and Dr. Otis, has been largely supported by contracts first with the Office of Scientific Research and Development and later with the Air Matériel Command at Wright Field. Dr. Adolph undertook to work on man's requirements for water in the desert and elsewhere. This led to his book on "Physiology of Man in the Desert" and has continued into other problems on environmental physiology, especially tolerance to cold, with the financial help of a grant from the Public Health Service. Since Dr. Blair transferred to the Atomic Energy Project in 1948, the work in electrophysiology has been carried on under Dr. E. B. Wright with the support of the Infantile Paralysis Foundation and a generous anonymous grant to Dr. Wright.

The Department of Vital Economics was established in 1917 with Dr. Murlin as director but he was given leave of absence to serve as chief nutrition officer for the Army during the war. He spent some of this time in Rochester supervising vitamin assays of dehydrated foods being tested for military use. Dr. Murlin's immediate postwar research was directed toward the isolation of the antidiabetic principle from the pancreas. A lively interest in the physiology and chemistry of insulin continued for many years. Vincent duVigneaud, now Professor of Biochemistry at Cornell, worked on the sulfur of insulin as the subject of his Ph.D. thesis. At the same time Elizabeth Marsh, now Associate Director of the Killian Laboratories in New York City, was working on the metabolism of infants and the efficiency of muscular work on high fat diets. H. B. Pierce, now Professor of Biochemistry at Vermont, studied the metabolism of yeast and the castor bean, and the production of digestive enzymes in the small intestine. Dr. H. A. Matill, now Professor of Biochemistry at the State University of Iowa, was, next to Dr. Murlin, the earliest senior member of the staff. Some of his work provided the first clue which led to the discovery of vitamin E. A characteristic of the Department of Vital Economics was the large number of diet experiments in which all staff members took part as subjects and investigators. In this way many proteins were assayed for biological value in the human dietary. These experiments contributed not only valuable data on the proteins but also on the technique of carrying on diet experiments with human subjects.

Shortly after the merger of the two Departments, Dr. Nasset returned from his duties as Nutrition Officer in the Army and is continuing his work on amino acid metabolism and digestive hormones. The interests of the Department in endocrinology are carried on by Dr. Kochakian in his studies of steroid metabolism.

# Biochemistry

ELMER H. STOTZ

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SINCE Dr. Bloor and his staff of four, comprising the Department of Biochemistry and Pharmacology, moved early in 1925 from the present Animal House to the then spacious quarters on the third floor of the Medical School, the Department has grown steadily until now every bit of available space has been occupied. At present, laboratory space and tables provide facilities for some 25 research workers as well as for 72 students taking the regular medical courses in Biochemistry and Pharmacology. Excellent cold room facilities, a warm room, a photographic darkroom, a shop and glass-blowing room, and a seminar-library are also available on the floor.

During the war years, the Pharmacology-teaching function of the Department was separated. Dr. Harold C. Hodge, who had joined the Department in 1931 and had become primarily responsible for Pharmacology teaching, became Professor of Pharmacology and head of the Division of Pharmacology and Toxicology in the rapidly expanding Atomic Energy Project. Laboratory teaching of this subject still utilizes the Biochemistry student laboratory and stockroom, although research activities are conducted within the framework of the new Department of Radiation Biology.

In 1947 Dr. Walter R. Bloor, the first Professor of Biochemistry and Associate Dean of the School, retired. His guidance and research brought the Department into a leading position among the medical schools, particularly as a center for research in lipid chemistry and metabolism. Dr. Bloor has not retired from research, however, but has struck a happy compromise in which he may be found busy in the laboratory mornings, and on his farm in the afternoons. Two of Dr. Bloor's first students, Dr. Warren M. Sperry and Dr. R. Gordon Sinclair (now deceased), achieved eminence in the field of Biochemistry little less than that of their teacher, and others are in the making. Dr. Bloor leaves many other challenges to his successor, Dr. Elmer H. Stotz. Dr. Stotz came to the school from Cornell University after previous posts at the University of Pittsburgh, University of Chicago and the Harvard Medical School.

Few of the earlier personnel of the Department now remain. In addi-

tion to Dr. Bloor, Dr. Frances Haven is still engaged in lipid research, and past medical students will remember Mrs. Fagan, in charge of the stockroom. In 1941 Dr. Alexander L. Dounce came to the Department to engage in studies of cell nuclei, but was soon involved in important phases of the war project on the chemistry and toxicology of uranium compounds. In 1949 Dr. Dounce became Assistant Professor in the Department. Dr. Robert Witter joined the staff in 1947 to engage in studies of fatty acid oxidation. The activities of the Biological Stain Commission have been adopted as a function of the Department, involving the identification and staining properties of commercial stains for laboratory use, as well as the support of research in the biochemistry of staining. In this area the services of Miss Mary Darrow have proved of value to the University.

The retirement of Dr. Bloor occurred at about the same time that research grants became more readily available from government and research foundations. Such grants-in-aid have been largely responsible for an increased number of graduate students. Some of these students are provided stipends and laboratory space by the Atomic Energy Project, and pursue studies guided by biochemists in the project who also hold appointments in the Department of Biochemistry. In this way the services of Dr. Leon Miller, Dr. William Neuman, and Dr. Kurt Salomon for graduate and medical student teaching are essential in our activities.

The principal research programs of the Department are now concerned with a) the lipids of cancer tissue and the tumor-bearing host, b) the biochemistry of the cell nucleus, c) the *in vitro* metabolism of fatty acids, and d) the separation of enzymes of the cytochrome system and other enzymes concerned with biological oxidation and e) the identification and metabolism of adrenal steroid hormones.

# Bacteriology

HENRY W. SCHERP

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THE first quarter century of the Department of Bacteriology commenced on September 1, 1923, with the appointment of the first Professor, Dr. Stanhope Bayne-Jones, now President of the Joint Administrative Board of the New York Hospital-Cornell Medical Center, and closed on June 30, 1949, with the departure of the second Professor, Dr. George Packer Berry, to become Dean of the Harvard Medical School. The interim has encompassed a period of greatly accelerated development of microbiology, called by some a "Second Golden Age of Bacteriology," in which the Department has played a proportional role.

Recognizing the focal position of bacteriology, Dr. Bayne-Jones promptly instituted the policy, which is still fundamental, of maintaining liaison with various relevant departments throughout the Medical School, Hospitals, and other areas of the University and with the community at large. Thus, the Department has been continuously in contact with the clinical departments, especially those concerned with the problems of infectious disease, through joint appointments of its staff and particularly through its supervision of the Bacteriological Laboratories of the Strong Memorial and Rochester Municipal Hospitals. Dr. Berry held appointment as Associate Professor of Medicine, and relationship with the clinical departments has also been maintained with the Department of Medicine by the appointments of Dr. Howard B. Slavin and Dr. Jacob D. Goldstein, and with the Department of Pediatrics through Dr. William L. Bradford.

Collaboration with the Department of Pathology has been accomplished through the appointment each year of Postdoctoral and Student Fellows, who participate actively in both the Departments of Bacteriology and Pathology and who are responsible for autopsy bacteriology.

Contact with the community has been provided through the Rochester Health Bureau Laboratories, which are operated by the Department for the City. The Laboratories have been successively under the direction of Dr. Charles W. Dodge, Professor of Biology in the University, Dr. Bayne-Jones, Dr. James A. Kennedy, Dr. Charles M. Carpenter, and Dr. Edward P. Offutt. The functions of the Laboratories are so comprehensive

that they warrant the detailed discussion given below.

Another point of contact of the Department with most areas of the Medical School and Hospitals has been the Media Preparation Division, which supplies culture media and sterile glassware to the various diagnostic facilities and research projects. This Division has become one of the Department's major responsibilities. It employs the full-time services of ten technicians and handles well over two million items annually. The Division has been under the supervision of a number of individuals, namely, Miss Adeline Sedgwick, Mrs. Mildred Harris, Miss Evelyn M. Campbell, Miss Dorothy Whelan, Mrs. Dorothy Shaw, Mrs. Jane Welton, Miss Mary L. Heffer, and Dr. Offutt.

The teaching activities of the Department extend in several directions. The course in medical bacteriology, immunology and medical parasitology has been a joint responsibility of the entire staff of the Department, with the program in parasitology under the special supervision, first, of Dr. Oliver R. McCoy and, second, of Dr. Offutt. Graduate instruction has been offered through regular seminars and opportunities for research in various branches of bacteriology. The Department has graduated seven students with the degree Doctor of Philosophy and ten students with the Master's degree. In addition, the Department has been host to a number of Postdoctoral Fellows, including many Rockefeller Fellows, and to eleven Veteran Postgraduate Fellows following World War II. In recognition of the implications of bacteriology beyond the medical field and of the trend of the times, Dr. Bayne-Jones arranged with the University's Department of Biology to give instruction in general microbiology to students of the College of Arts and Science in the laboratories of the Medical School. This course was initiated by Dr. Ralph P. Tittsler and following his departure was carried on successively by Dr. Leslie A. Sandholzer, Dr. Offutt, and Dr. Dorothy M. Tuttle, and is at present taught by Dr. Robert M. Allen. Finally, the Department relates to the School of Nursing through its supervision of the course in bacteriology for student nurses.

The research interests of the Department have been almost as varied as its personnel. The principal subjects of interest and the men associated with them include: the interaction of toxins and antitoxins, motion photomicrography and dynamics of bacteria—Dr. Bayne-Jones; the nature of viruses, transformation of fibroma virus to myxoma virus and the relation of viruses to tumors—Dr. Berry; streptococci and the Calmette-Guerin bacillin—Dr. Konrad E. Birkhaug; brucellosis, gonorrhea, leprosy, fever therapy and chemotherapy—Dr. Carpenter; multiple infection of single host cells by viruses, the role of viruses in the production of the rabbit papilloma-to-carcinoma sequence, intermediary hosts for

viruses—Dr. Jerome T. Syverton; immunochemistry and metabolism of pathogenic organisms—Dr. Henry W. Scherp; whooping cough—Dr. Bradford; trichinosis—Dr. McCoy; trichinosis, sarcocystosis, blood and tissue flagellates—Dr. Offutt; virus diseases of the central nervous system—Dr. Slavin; enteric bacteria and their related bacteriophages—Drs. Sandholzer and Tittsler; experimental syphilis—Dr. Ruth A. Boak and Dr. Carpenter; immunochemistry of the gonococcus—Dr. Herbert E. Stokinger and Dr. Carpenter. The Department has maintained a continued interest in the bacteriological phases of the work of the dental research group. In this connection, the following Rockefeller Fellows in Dentistry have been members of the Department: Dr. Philip L. Jay, Dr. Holmes T. Knighton, Dr. Oliver W. Clough, Dr. Walter E. Taylor, Dr. Maynard K. Hine, and Dr. Basil G. Bibby. At the present time, the Dental Research Fellow is Major George W. Burnett of the U. S. Army Dental Corps.

The various investigations listed above have resulted in the publication of 361 papers in scientific journals.

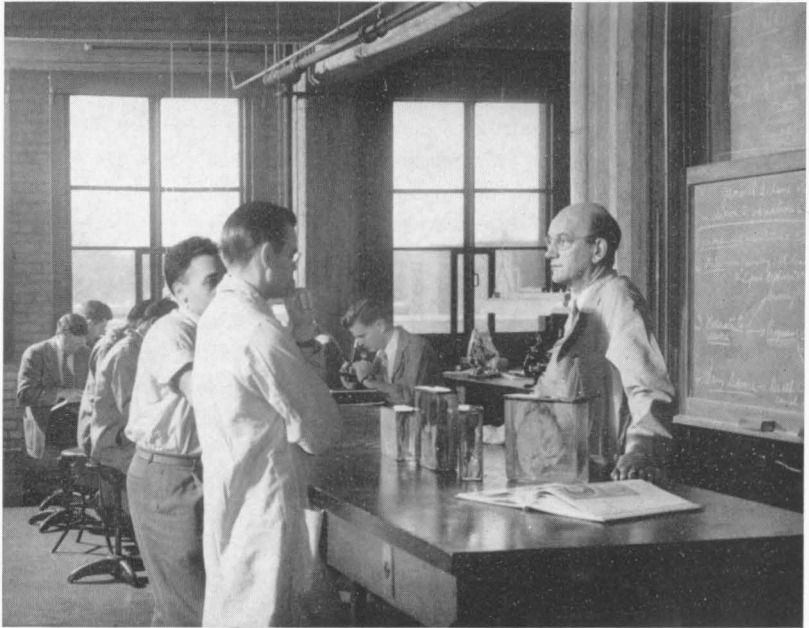
Former members of the Department and their present posts include: Basil G. Bibby, D.M.D., Director, Eastman Dental Dispensary, Rochester, N. Y.; Konrad E. Birkhaug, M.D., Associate Medical Bacteriologist, Division of Laboratories and Research, State Department of Health, Albany, N. Y.; Charles M. Carpenter, M. D., Professor of Infectious Diseases, University of California School of Medicine, Los Angeles, Calif.; James A. Kennedy, Ph.D., Professor of Bacteriology and Public Health, University of Louisville, Louisville, Kentucky; John A. Lichty, M.D., Assistant Professor of Pediatrics, University of Colorado School of Medicine, Denver, Colo.; Oliver R. McCoy, M.D., Rockefeller Foundation Consultant, Tokyo, Japan; David L. McVickar, M.D., Assistant Professor of Bacteriology, Vanderbilt University School of Medicine, Nashville, Tenn.; Donald S. Martin, M.D., Professor of Preventive Medicine, Duke University School of Medicine, Durham, N. C., and later Professor of Microbiology and Dean of the University of Puerto Rico School of Medicine, Puerto Rico; William W. Stiles, M.D., Assistant Professor of Public Health, University of California, Berkeley, Calif.; Jerome T. Syverton, M.D., Professor of Bacteriology and Immunology, The Medical School, University of Minnesota, Minneapolis, Minn.; Ralph P. Tittsler, Ph.D., Associate Bacteriologist, Dairy Division, Bureau of Dairy Industry, U. S. Department of Agriculture, Washington, D. C.; and Dorothy M. Tuttle, Ph.D., Assistant Professor of Bacteriology, Institute of Tropical Medicine, Bowman-Gray School of Medicine, Winston-Salem, N. C.

## Pathology

GEORGE H. WHIPPLE

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THE Department came into being officially with the appointment of Dr. Whipple as Professor of Pathology in May, 1921, but remained in a nebulous state until November, 1922. This period was in effect a sabbatical year of complete freedom from teaching and research with the substitution of blueprints and school policies. Dr. Bloor and Dr. Whipple moved into the present Animal House in November, 1922. Pathology occupied the rooms in the southeast corner of the ground floor. Dr. Frieda S. Robbins had been associated with Dr. Whipple in the research program concerned with experimental anemia in dogs developed in the Hooper Foundation, the University of California Medical School, San Francisco.



Dr. William B. Hawkins, Associate Professor of Pathology in the Pathology Classroom—1950.



She carried on this program during the year after Dr. Whipple left San Francisco and in December, 1922, moved the colony of standard anemia dogs to Rochester and set up the program in the present Animal House. This valuable anemia colony of dogs is in active use at present and represents largely the descendants of the original group of 40 animals.

Dr. Harry P. Smith was appointed first assistant in the Department and began work in September, 1924, after a period of several months spent abroad. Attention was given to equipment and much of the school apparatus was built locally following the patterns tested in the Animal House. The first group of technical assistants was trained under the supervision of Mrs. Don Hutchens. Obviously, the pathology of this period was almost wholly experimental and comparative, dealing with the diseases encountered in various animals used in the research work. Occasional consultations were held relating to surgical or autopsy material at other hospitals.

The Department moved into its present quarters in February, 1925. Dr. Robert Kennedy joined the staff in June, 1924, and Dr. W. B. Hawkins in August, 1929. The first autopsy in the Department was done by Dr. Whipple on January 20, 1926. From that date the autopsy service has grown steadily to the level of about 650 per year. The total autopsy file now numbers 12,452 and the autopsy permission rate is about 70%—a very high rate for the active general service of the Strong Memorial and Municipal Hospitals. Autopsy permission represents the work of the clinical staffs and a high rate of autopsy permission is accepted as an index of good hospital standing.

Meticulous care of the autopsy suite and related materials calls for skill and devotion. This task during the past thirteen years has been faithfully performed by Boris Jespersen.

Surgery and Pathology are physically in contact through the laboratories of experimental surgery and surgical pathology. Various department associates have enjoyed joint problems in experimental surgery and pathology for mutual benefit. The teaching of surgical pathology to students and resident staff is a joint undertaking.

The Research program of the Department follows a fairly even pattern. The major fields of interest are anemia studies; body pigments under all conditions; physiology of the bile and liver, including bile salts and liver injury; blood plasma proteins, their production, utilization and interrelation; amino acids and body protein metabolism; shock; renal thresholds for proteins; experimental ascites and protein mobilization; iron metabolism; the use of radio-isotopes in these and other fields. Scientific publications number 300.

The Museum of Pathology had its beginnings under the eye of Harry P.

Smith. Miss Edna Fairman was the first and is the present curator. She operates the museum like a library and on request puts out suitable museum specimens to illustrate a clinic or seminar in Pathology, Bacteriology, or any clinical subject. The museum is well filled with mounted specimens suitable for this work, all prepared by Miss Fairman. In addition all photographs, microscopic slides, and cross index files are housed in the museum. The museum, officially under Pathology, now serves all school departments and often gives training to persons entering this field.

The Animal House as it grew from temporary laboratory quarters to its present state was at first operated under Pathology but at present is under the charge of an Animal House Committee of four members. It has its own budget but certain costs are charged to various departments to cover special animal purchase, food and care.

Histological sections are prepared in a large service room in Pathology. These sections relate to autopsy material, surgical specimens and animal material coming from various departments. The Department of Anatomy prepares its own histological material but other departments requisition histological slide preparations from Pathology and pay the unit cost. This arrangement saves much money which otherwise might be wasted by needless duplication. Miss Harriet Feary joined the Department in February, 1926, and has been its mainstay and senior technician ever since. Junior workers often come in as volunteers for training in special techniques.

Following World War II there was a great demand for postdoctoral training in Pathology coming from the veterans just released from service. They desired this training to freshen and expand their knowledge in general pathology and to qualify them for the Specialty Boards. It was decided that the Department could give adequate training to 10 veterans for 6 months, or 20 a year. Their work was that of an Intern in Pathology—routine autopsies, review of special pathology, participation in the teaching of second year medical students, and association with some research problem in progress if the veteran so desired. Since the war, 74 veterans have gone through this training. They have done well and the Department has enjoyed this contact—a very worthwhile endeavour.

The staff numbered 6 when it took up teaching in Pathology for second year medical students, numbering 23. The present staff numbers 40, including the senior group of 13 and 4 internes, student and special fellows, and veteran postgraduate fellows. The second year class consists of 69 students, made up of 62 veterans, 3 nonveterans, and 4 women.

Student fellows coming from the undergraduate medical student classes represent an interesting experiment. These students usually at



Dr. Whipple and his daughter, Mrs. Barbara Schilling, pose in the Green Room in front of the photomural which depicts them fishing in the Colorado Rockies.

the end of the second year when general pathology has been completed, elect to stay a year in Pathology and participate in the usual work of an interne. They live in the staff house and usually collaborate in some research problem leading to scientific publication. They take up their third year work after this interval. These students often graduate "with honor." In general this group has done unusually well after graduation; some go into teaching and research in various medical school departments and others into successful practice.

The Department has enjoyed visits of a year or more from a number of foreign investigators. Among this number may be mentioned: Dr. Edmond Zalka, Rockefeller Fellow, Royal Hungarian Peter Pázmány University, Budapest; Dr. Odön Nachtnebel, Rockefeller Fellow, Royal Hungarian Peter Pázmány University, Budapest; Dr. Khun Sribhishaj, Rockefeller Fellow, Chulalongkorn University, Bangkok; Dr. Haruhisa Yoshikawa, Rockefeller Fellow, Tokyo Imperial University; Dr. Walter O. Cruz, Rockefeller Fellow, University of Brazil; Dr. Charles E. Dent, Fellow of the British Medical Research Council, University of London; Dr. Alphonse H. Nizet, Fellow of the Belgian American Educational Foundation, University of Liège; Dr. Ali M. Kassim, Visiting Fellow of the Pakistan Government, India; Dr. John C. S. Paterson, Commonwealth Fund Fellow, Post-Graduate Medical School of London.

The Department has been fortunate in its contacts with other institu-

tions. Since 1925 the autopsies at the Iola Tuberculosis Sanatorium have been the charge of the Department. We have enjoyed frequent conferences relative to the autopsy material with Drs. Ezra Bridge, John M. McMillan, and associates. There has been similar close co-operation with Drs. Eric S. Green and Walter S. Thomas relative to the autopsies at the Monroe County Infirmary and these furnish invaluable material for teaching and for the museum. For eight and one-half years we were responsible for the autopsy service and special pathology at the Park Avenue Hospital, first under Dr. Ralph E. Knutti, followed by Dr. Sidney C. Madden, and later by Dr. Charles L. Yuile. This service, now about to be moved to the new North Park Hospital, has been transferred to the General Hospital Staff. During recent years close co-operative relations have developed with the Genesee Hospital and the Highland Hospital where our staff is responsible for autopsies and surgical pathology diagnosis. This responsibility is shared by Drs. William B. Hawkins, Charles L. Yuile, Frank W. McKee, Roger Terry, Baldwin G. Lamson, and Wellington B. Steward, and there is close collaboration between the various internes in Pathology in these related hospitals.

The Department has enjoyed association with several men of chemical training and interests. These men have brought unusual skill and vision to aid research problems developing in the Department and have held Department positions for several years—Dr. Paul F. Hahn, Dr. Floyd S. Daft, Dr. Leon L. Miller, and Mr. Garson H. Tishkoff.

The Department takes natural pride in its group of alumni. Men who have been members of the Department for one or more years and later have been called to senior positions of considerable responsibility in the field of Pathology include: Dr. Harry P. Smith, Professor of Pathology, College of Physicians and Surgeons, Columbia University; Dr. Sidney C. Madden, recently Professor of Pathology, School of Medicine, Emory University, and now Head of the Division of Pathology at Brookhaven National Laboratory; Dr. Russell L. Holman, Professor of Pathology, School of Medicine, Louisiana State University; Dr. Emory D. Warner, Professor of Pathology, College of Medicine, State University of Iowa; Dr. James B. McNaught, Professor of Pathology, School of Medicine, University of Colorado; Dr. Frank B. Queen, Professor of Pathology, Medical School, University of Oregon; Dr. Cyrus C. Erickson, Professor of Pathology, Medical School, University of Tennessee; Dr. Ralph E. Knutti, Head of Department of Pathology, Children's Hospital Society, Los Angeles; Dr. Lauren V. Ackerman, Associate Professor of Surgical Pathology and Associate Professor of Pathology, School of Medicine, Washington University.

## **Department of Radiation Biology and Atomic Energy Project**

HENRY A. BLAIR

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IN MARCH, 1943, General Leslie Groves, commandant of the Manhattan Engineer District, met with President Alan Valentine and Dr. Stafford Warren to discuss the possibility of setting up a research and consultation group in the medical school to study the health hazards anticipated in connection with the Oak Ridge plants and other installations of the Manhattan Engineer District in its program to produce the atomic bomb. It was agreed that the University would undertake the assignment. Dr. Warren proceeded to organize the Manhattan Project for the University and to develop plans for new buildings to house it.

The west wing of the present Medical School Annex on the north side of Elmwood Avenue had already been completed in January, 1943. It was built to house million-volt x-ray equipment supplied by several Rochester industries in order that they might have a facility to x-ray gun mounts and other military supplies to ensure conformance with the government's specifications. It was decided to erect the new Manhattan laboratory contiguous to this building. Construction was begun early in June and completed on September 1, 1943. This addition of the two-story red brick south and east wings along with the one-story concrete-block structure completed the "Annex" as it stands at present.

The program to be carried out by the Manhattan Project was fourfold:

(1) to analyze data of pre-employment physical examinations and of frequent re-examinations of personnel employed by the many plants involved in nuclear energy development all over the country, wherever these personnel were exposed to possible occupational hazards.

(2) to advise these plants how to protect their personnel from exposure to radiation and to chemical poisons by (a) determining "tolerance standards" for doses of these factors; (b) developing instruments to measure the exposure which these workers received; (c) determining by measurement in the plants the intensities of radiation and concentrations of toxic dusts; (d) determining the amount of contamination of workers' clothing with poisonous materials, and (e) advising what precautions should be taken to safeguard the workers.

(3) to investigate by research the effects of exposure to dusts and fumes of uranium and other toxic substances.

(4) to investigate, by research, the effect of exposure to radiation from radioactive materials.

Including some military personnel, the roster of the Department numbered at times 350 during the war period. Local professional personnel were drawn principally from the Departments of Biochemistry, Biology, Medicine, Physics, and Radiology, and the Division of Pharmacology. Therefore, major contributions to the program were made by several departments of both the College of Arts and Science and the School of Medicine and Dentistry.

Part of the original responsibility of Dr. Warren and the Department was the establishment of a hospital at Oak Ridge and the medical care of employees at other Manhattan District installations. This part of the work became so important that Dr. Warren moved to Oak Ridge early in November, 1943, to assume the office of Chief of the Medical Section of the Manhattan District with the rank of Colonel. He was succeeded at Rochester by Dr. Andrew H. Dowdy, who remained as Director until the end of 1947 when he became Chairman of the Radiology Department of the new Medical School of the University of California at Los Angeles. Dr. Warren had previously been appointed Dean of this same school in 1946 after his release from the Army.

Following the war the work of the Manhattan District was taken over by the Atomic Energy Commission in January, 1947. At that time the name of the local research program was changed to The University of Rochester Atomic Energy Project, and this designation has been retained.

In January, 1948, a new Department of Radiation Biology was created in the Medical School under Dr. H. A. Blair to administer the research contract with the Commission and to co-ordinate and expand the teaching and other academic activities of the Project which were gradually increasing.

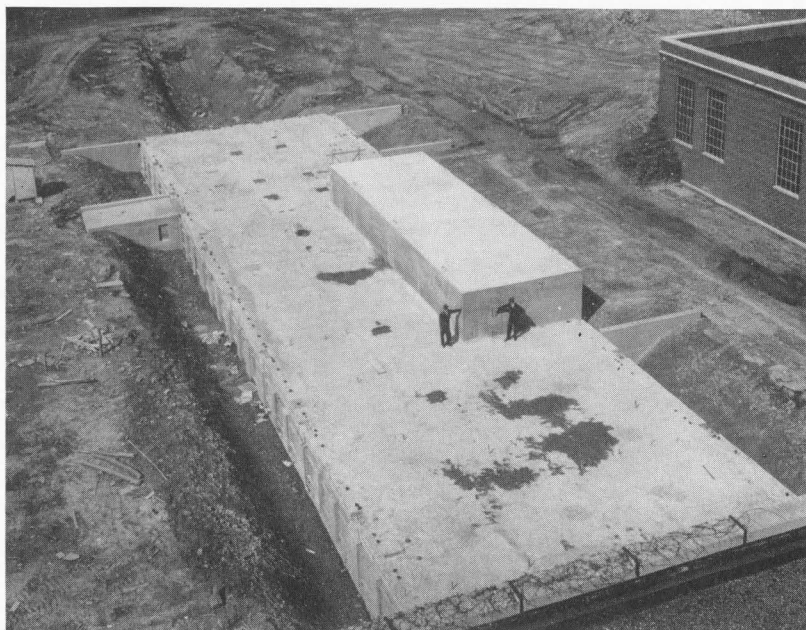
In 1948 the Commission approved establishment of a training program at Rochester for students of various phases of the health and biological aspects of atomic energy development. This involved construction of a new wing on the north side of the Medical School, 45 ft. wide, 150 ft. long and seven stories high including the basement. Completed in February, 1950, this building is designed to accommodate 50 to 100 students.

Pending completion of the new wing, a group of eight students holding fellowships from the Commission through the National Research Council were enrolled in November, 1948, for a course of one year's duration in Radiological Physics. A second group of ten came in Sep-

tember, 1949, and it is expected that this program will continue at this level for some years. These students may qualify for the Master's Degree in Radiation Biology or Biophysics.

This teaching program along with a continuing group of twenty-three candidates for the Ph.D. degree in Pharmacology and Toxicology and Biophysics constitutes the beginning of an extensive program of instruction under Commission sponsorship at both the predoctoral and postdoctoral levels in the problems of industrial toxicology, detection and the measurement of radiation, the biological effects of radiation, the use of isotopes in research, the handling of radioactive materials and the medical aspects of the use of atomic energy with respect both to the health hazards involved and the benefits to be derived. Dr. Newell Stannard has been appointed Assistant Director in Charge of Education to co-ordinate the teaching program.

The Medical Services Division of the Project under Dr. Joe Howland has assumed responsibility for safeguarding the health of employees using the University cyclotrons and handling radioactive material for use in research. This Division is also developing an isotope distribution



Wing O under construction—April 8, 1949—showing the Radioactive "Hot" Laboratory for the Atomic Energy Commission Project.



center to promote the safe use of radioactive materials for research and therapy in hospitals and other institutions outside the University in this area. The Medical Services Division is responsible for Project research in the fields of prophylaxis and therapy against radiation injury and related problems.

Dr. Harold Hodge is Head of the Division of Pharmacology and Toxicology both on the Project and in the Medical School. Consequently, the Medical School teaching in these subjects is well integrated with the extensive research program of the Project in the industrial toxicology of uranium, beryllium and other substances employed in atomic energy development. The war work of this Division was published by McGraw-Hill in two books edited by Drs. Carl Voegtlin and Harold Hodge under the title "The Pharmacology and Toxicology of Uranium Compounds." Two additional books on subsequent work are in press. These publications are part of the National Nuclear Energy Series sponsored by the Atomic Energy Commission.

The Division of Radiology and Biophysics, until recently directed by Dr. William Bale, is responsible for studies of the biological effects of radiation both from external sources and from ingested radioactive materials. Dr. John Hursh is now directing the Division during the leave



Wing O from the northwest—January 30, 1950.

of absence of Dr. Bale, who is acting temporarily as Chief of the Section on Waste Disposal of the Division of Biology and Medicine of the Atomic Energy Commission, Washington. Some of the war work of this division appeared in the spring of 1950 as a volume in the National Nuclear Energy Series entitled "Biological Studies with Polonium, Radium, and Plutonium," edited by Dr. Robert M. Fink. Mr. George Boyd is preparing a book on "Autoradiography" which discusses the technique of detecting the distribution of radioactive materials in tissues and other media. Members of this division also made contributions to another volume of the National Nuclear Energy Series entitled "The Biological Effects of External Radiation." This volume, edited by Dr. Dowdy, also contains chapters by Dr. Donald Charles of the Department of Biology, Drs. John Lawrence and Samuel Bassett, formerly of the Department of Medicine, and others. In addition to the publications mentioned, the Project since its inception has issued over 600 reports for distribution to government agencies and for publication in scientific journals. Although all of the work was classified secret during the war, most of it has since been declassified to permit publication. At present, practically all the research is unclassified or promptly declassifiable.

Although considerable collaboration in research with other departments of the College and the Medical School has taken place since the war, it is anticipated that this will increase. For example, an arrangement was made, with the approval of the Commission, for the Divisions of Radiation Therapy and Cancer Research to occupy space in the new AEC building. It is hoped that this arrangement will facilitate co-operation of mutual benefit to the groups concerned, both in the teaching of students and in the applications of new techniques with radioactive materials to research and therapy.

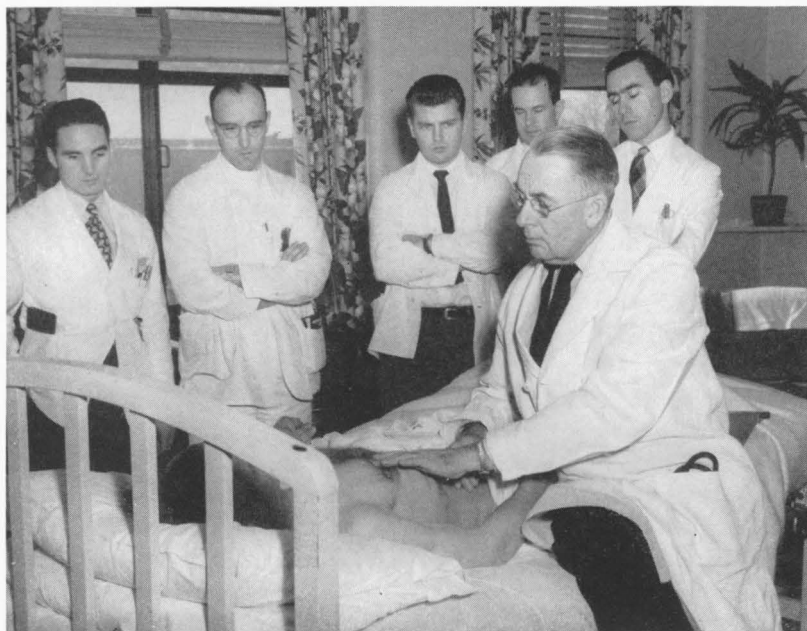
## Department of Medicine

WILLIAM S. McCANN

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WHEN the new Medical School opened its doors there was a period of two years in prospect before the medical clinic of the Hospital would receive students in its wards. During this period there was time in which to establish the objectives of the Department and to work out details of the methods by which they were to be achieved. An opportunity was here presented of building a modern medical clinic without let or hindrance of the sort experienced by those who were charged with revamping clinical instruction in older institutions in which the methods of a previous generation had to be replaced or modified, in many cases in the face of determined opposition. In the older institutions a young full-time professor was frequently surrounded by senior clinical teachers. Even though these were not always in sympathy with new-fangled ideas of clinical research, yet, by bearing a share of the clinical load they gave the full-time teacher a chance to develop a program of investigation. In the case of Rochester, however, there was no body of older teachers available, so that the young professor and his associates were obliged to desert test tube and microscope for the time being in order to devote themselves to the basic clinical disciplines which are the primary responsibility of a department of medicine. In performing this function Dr. McCann had very able assistance from Dr. Richard S. Lyman, the first Associate Professor of Medicine, and from Dr. Lawrence A. Kohn, the first resident physician. To the skill and ability of both men, the clinic will always be in debt. All those methods and procedures, which were already well established in older centers in the hands of experienced clinicians, had to be worked out laboriously in detail, and designed so that the methods would be adaptable in later years to a program of clinical research carried out on a broad front. The objective of the new clinic could be stated as follows:

- (a) the establishment of sound methods of observing and studying the manifestations of disease as seen in a medical clinic, and of training students in these methods.
- (b) the development of a broad research program as personnel and facilities could be developed. From such beginnings the character of the



Professor McCann examining a patient.

research was developmental and was applied to the elucidation of clinical phenomena and to the guidance and control of therapy, rather than toward the more basic problems which were possible in older clinics with well-established programs in which the clinical researcher was subject to less demand for clinical teaching and for the care of patients.

At the outset it was decided that the head of the Department of Medicine could not afford to be a specialist. A rounded well-balanced program devoted to the best interests of patients and of medical students would preclude such specialization on the part of the professor. As the clinic got under way an effort was made to develop semispecialists within the broad field of internal medicine among the associate and assistant professors; yet care was taken to see that each of these men was given periods of clinical responsibility of the broadest and most varied nature possible, in order to keep him from being overspecialized in practice, even though his researches might follow a narrower field of activity.

In the beginning the Department of Medicine was made to include as subdepartments both Radiology and Psychiatry, because at that time the means were not at hand to establish them as full and independent departments. Dr. Stafford L. Warren was initially charged with the re-

sponsibility for Radiology as an Assistant Professor of Medicine; while Psychiatry was in charge of Dr. Eric Clarke; and Neurology in charge of Dr. Richard S. Lyman as Associate Professor. Radiology was made a full-fledged department with Dr. Warren as its head in 1939.

Psychiatry could not be set up as an independent clinic until the generous gift of Mrs. Helen Woodward Rivas made this possible in 1946. The new Professor of Psychiatry, Dr. John Romano, and his Associate Professor, Dr. George Engel, began a part of their teaching on the medical wards, while the new clinic was under construction, and thus brought to fruition a desire which Dr. McCann had had from the first. The choice of Dr. Richard S. Lyman as the first Associate Professor was determined by the fact that he had received psychiatric training under Dr. Adolph Meyer. During his tenure of this office he made a splendid integration of Psychiatry and Neurology and Internal Medicine, which left its mark on the clinic. After his departure, Neurology was taken over by Dr. Paul Garvey, and Psychiatry by Drs. Andrew J. Akelaitis and Richard Jaenike. The first chief of the psychiatric division, Dr. Eric Clarke, devoted most of his energies to the problems of children. Under all these men a sincere and determined effort was made to integrate their discipline with that of general somatic medicine. The initial impetus was given by Dr. Lyman, who exhibited tremendous energy and the most surprising versatility.

This versatility of Dr. Lyman is well shown by his researches into the acoustics of the chest, undertaken as part of the program of teaching physical diagnosis. With the assistance of Dr. P. F. Metildi a sound-proof laboratory was set up and equipped with elaborate recording devices for the study of sounds produced within the chest or by percussion of it.

In consonance with his previous training Dr. McCann took over the organization of the clinical chemistry and later of a metabolism ward. This was subsequently transferred to Dr. Samuel H. Bassett, who was the second resident physician; and later there was associated with him Dr. Henry Keutmann, both of whom ultimately became associate professors, contributing greatly to the growth and development of the clinic. Once this transfer had been effected completely, Dr. McCann turned his attention to development of a laboratory for study of the clinical physiology of respiration. A grant of money for the study of silicosis made possible the retention of Dr. Alberto Hurtado, of Lima, Peru, who had come to us first as a Rockefeller Fellow, and who remained in this laboratory for five years. During this time a team developed which included Dr. W. D. W. Brooks, Fereday Fellow of St. John's College, Oxford; Dr. Charles Boller, the fifth resident physician, and Dr. Nolan Kaltreider. Dr. Henry Van Zile Hyde, also of this group, is now in the U. S. Public Health Service and assigned to the World

Health Organization, while Dr. Hurtado is Professor of Pathological Physiology in his alma mater, the University of San Marcos in Lima, Peru.

This respiration laboratory, which lapsed during the war years, has now been re-created as the Chest Laboratory, elaborately re-equipped and manned by a team of Bertha Hochstetter and Henry C. Buswell Fellows, who are supported by the Hochstetter Fund assisted by gifts from Mrs. Frank W. Lovejoy.

The next program to develop in the new clinic was in the field of hematology. When Dr. Lyman resigned to go to the Peiping Union Medical College in China, his place was taken by Dr. John S. Lawrence, who came from an association with Dr. George Minot at the Thorndike Memorial Laboratories in Boston. During a period of eighteen years from 1929 to 1947 Dr. Lawrence developed a very active hematological laboratory, productive of much research. Among the earliest associates in his work were the late Doran J. Stephens, a brilliant graduate of the first class; Dr. Edgar Jones, who is now in charge of hematology at Vanderbilt University; and Dr. A. Izard Josey. Many young assistants who have passed a period of training in this program have continued hematological research elsewhere. Notable among these are Dr. Clement Finch, who has a part in the founding of a new medical department at the University of Washington, and Doctors William Valentine and William Adams, who accompanied Dr. Lawrence on his departure to assume the Chair of Medicine at the University of California, Los Angeles, in 1947. During the war years, Dr. McCann was absent on active duty in the U. S. Naval Reserve and Dr. Lawrence was in full charge of the Department of Medicine. At the same time he rendered valuable service in connection with the hematological problems facing the Manhattan Project in the development of atomic energy.

After the departure of Dr. Lawrence, the hematological program was put in charge of Dr. Lawrence E. Young, who has given it energetic guidance in new directions, supplementing the older morphological techniques with investigations into the hemolytic anemias involving immunological reactions of erythrocytes and the metabolic consequences of blood destruction.

From the beginning, the Department of Medicine was allotted space in the bacteriological laboratories for the training of its residents and internes in clinical bacteriology. In the early years, before the revolutionary developments in chemotherapy and antibiotics, the problem of infectious diseases loomed large in the practice of the clinic. Bacterial pneumonias were numerous and accompanied by a mortality rate of more than 40 per cent. Consequently pneumonia teams were organized

each year, consisting of a fellow, an assistant resident physician and a rotation of internes. In retrospect one can see that this experience gave impetus to a number of young men to proceed into investigational careers. Dr. J. D. Goldstein, now Associate Professor of Medicine and Bacteriology, and Director of Laboratories of the Genesee Hospital, is one of these. Dr. Howard B. Slavin, who is now in charge of this division, has carried his work into the field of neurotropic viruses. Dr. Lawrence E. Young is another of these who entered the field of bacteriology and obtained further training in it at Johns Hopkins.

While in this laboratory Dr. Herbert R. Brown, Jr., became interested in the problem of blood grouping and transfusions, gaining an experience in this field which enabled him to direct the enormous blood distribution center which the Navy established in the Pacific theater during the war. This same experience was also responsible for Dr. Lawrence Young's transfer of interest from bacteriology to hematology.

Since the war Dr. Herbert Brown, Jr., has been developing the ballistocardiograph as an instrument both for diagnosis and for the study of the circulatory reactions of the body in extremes of heat and cold. This interest of Dr. Brown is an outgrowth of his previous service as resident in charge of fever therapy. It was made possible by the award of a Bertha H. Buswell Fellowship from the Hochstetter Fund, on his return from naval service, and by a grant from the Office of Naval Research.

Our Health Service was initiated in 1934 when Dr. Einar Lie became Medical Advisor. In the beginning his duties included the initial examination of employees of the Medical School and Hospital as well as the care of medical students, nursing students and staff nurses. Because of the excessive amount of work for one man, the examination of the employees was soon transferred elsewhere and was taken over in 1943 by Dr. Q. J. Serenati. Eventually also Dr. Priscilla L. Cummings was given responsibility for the care of the nurses.

In November, 1948, the final arrangements were made with the Rochester Hospital Service Corporation for insurance to cover hospital care of the medical students. The student infirmary fee helps to defray expenses not covered by this insurance. After February, 1949, when all the personnel work of the University was consolidated into one Personnel Department, the examination of employees was likewise extended to include all employees of the University with the exception of the nurses. This work was put in charge of Dr. Thomas B. Spencer. Today the Health Service rests in the hands of Drs. Lie, Jacox, Cummings, and Spencer.

One of the achievements of which the Department of Medicine may





Dr. Priscilla L. Cummings with nurses.

be justly proud is its antituberculosis program. In the early years of the school it became apparent that active tuberculosis was developing with undue frequency among the students, nurses, and house staff. In 1930 the untimely death of a medical interne, Dr. Charles Sakowitz, from this disease led Dr. McCann and Dr. Einar Lie to redouble the efforts at frequent x-ray screening. The records of the initial reactions of students and nurses to intracutaneous tests with tuberculin and P.P.D. were scanned, and indications were found that the disease developed with increased frequency in those who had negative tests on entering the school. For a time Dr. Lie endeavored to keep the records in addition to his many other duties, but it became apparent that a close follow-up would require the whole time of one man. When Mrs. Helen Woodward Rivas offered a gift of \$25,000 to the department, Dr. McCann decided to apply it to this study, and Dr. Gordon Meade was selected to carry it out over a period of five years. The results of this study showed clearly that the disease was appearing most frequently between the second and third year, and that its incidence was six times as frequent in those whose skin reactions were negative on entry as among those with positive reactions. The importance of exposure in the autopsy room was recognized, and new techniques were employed there. Highly susceptible nonreactors were not permitted to participate in autopsies on active tuberculous subjects. These measures reduced the incidence of

new tuberculosis appreciably. It was later followed by the vaccination of all nonreacting students and pupil nurses with B.C.G., a measure which has been followed now for four years, with the result that no new cases have been found in vaccinated subjects up to date. This work has been ably carried on by Dr. Ralph Jacox, who succeeded Dr. Meade when the latter became Associate Medical Director of the Trudeau Sanitarium at Saranac Lake in 1946.

At this point it is well to explain the origin of the Hochstetter Fund, and of the role which it has played in the growth of the Department since the war. This fund is made up of gifts from Mr. Ralph Hochstetter of Buffalo, for the support of fellowships in memory of his sister, Mrs. Bertha H. Buswell, and her husband, Dr. Henry C. Buswell. These gifts accumulated during the years 1942-45 because they could not be employed advantageously at that time. At the end of the war a number of men were returning from the armed forces who had shown great academic promise during their previous service in the clinic. Without substantial support from the Hochstetter Fund, they would have entered practice and would have been lost to academic medicine. Thus, Dr. Lawrence Young became available to fill the post left vacant by Dr. John S. Lawrence. Similarly, we have been able to retain Drs. Herbert R. Brown, Jr.; Robert A. Bruce; Frank W. Lovejoy, Jr.; Paul Yu; Ralph Jacox, and Christine Waterhouse, all of whom are former resident physicians in this clinic. As the work of these Fellows progressed, it was possible to gain additional research contracts from the Office of Naval Research, the U. S. Public Health Service, the Masonic Foundation for Medical Research and Human Welfare, and the Eli Lilly Company. In many of these projects younger men are also working as Fellows with the Buswell Fellows. These have been chosen from the more recent members of the resident staff of the clinic. Thus, the Hochstetter Fund has in effect multiplied itself several times.

This rapid expansion of research activities in the Department has exhausted the available space to which it has a clear title. The appropriations from university endowment funds remain relatively unchanged, and it is upon these that faculty appointments with tenure must depend. Unless new endowment or subsidy is found, and new construction grants provide space in which to work, further expansion cannot occur.

At various times it has been possible for the Department to receive a number of Visiting Fellows. The earliest was Dr. Alberto Hurtado, already mentioned, and later Dr. W. D. W. Brooks of Oxford and St. Mary's Hospital, London. Dr. Yauso Ikeda of St. Luke's Hospital, Tokyo, and Dr. Kintaro Yanagi of the Imperial University at Tokyo, each spent a year. Dr. Konrad Dobriner, formerly of Munich, spent two years in

the chemical division before moving to his present position at the Memorial Hospital in New York. More recently Dr. John B. Johnson of Howard University, Dr. George Brothers of Meharry Medical College, and Dr. Tulio Velasquez of Lima, Peru, have each spent a year. Dr. Lulu Haroutunian of Lebanon, and Dr. Paul (Nan Gan) Yu of Shanghai are currently Fellows in the Department.

### *Methods of Instruction*

THE pattern followed in the organization of the clinical clerkships and in the resident staff closely resembled that of the parent clinic at Johns Hopkins, with the single exception that third-year, instead of fourth-year students were on the wards. The work in the out-patient service was believed to be more difficult and to require a higher degree of skill and experience than that of the wards; hence the senior students were assigned to it.

Throughout its history this Department has utilized didactic methods of teaching to a minimal extent. The training offered has been to a very large extent carried out at the bedside. The clinical clerk has always been given the opportunity to make the first study of a patient, to observe for himself the phenomena of disease before having them pointed out to him. He has always been offered a very great degree of responsibility in the care of the patient, and this opportunity has been enlarged as he has shown competence. Just as the junior officer in a court-martial gives his verdict first, so the clinical clerk has had the first opportunity to make a correct diagnosis and to suggest correct treatment. Each echelon of the resident staff has stood watchfully behind those junior to it, ready to prevent a mistake, yet intervening only when necessary. Such a system trains men more rapidly and brings them to competence more surely than one in which knowledge is handed down with all the *éclat* of magistral authority.

As the student performs his useful functions in ward or out-patient clinic, he is brought into close contact with those engaged in clinical research on the one hand, and with the part-time men of the visiting staff on the other. This is an important aspect of his training and one which effectively balances any tendency to become unduly academic in his point of view.

It is difficult to evaluate briefly the immense contribution to the departmental instruction and development which has been made by its part-time men. When the school started there were very few older men available who had experience in teaching. Of those who attempted it, the majority retired in embarrassment in the face of the eager questions

of youngsters fresh from the scientific departments of the preclinical years. As the years rolled by, the "visiting staff" became largely composed of graduates of the residency program. The early resident physicians of the first ten years are now men ranging in age from 42 to 52 years, with 15 to 25 years' experience in both teaching and practice. Men of this type will be of inestimable value to the second incumbent of the chair of medicine when he takes over the direction of the Department.

A word of appreciation must be said for those part-time men who have for years conducted the special consultation clinics of the out-patient service. Dr. Stearns Bullen has directed the Allergy Clinic from the beginning; Dr. E. I. Guller, the Blood Center; Dr. C. B. F. Gibbs, the Diabetic Clinic; Dr. C. P. Thomas faithfully directed the Cardiac Clinic for many years; while Drs. Einar Lie and John Laidlaw were in charge of the Syphilis Clinic. In the gastro-intestinal field Dr. Alvah Strong Miller served for many years until succeeded by Dr. Harry Segal.

The medical service of the Strong Memorial and Rochester Municipal Hospitals now fluctuates between 150 and 180 beds. It has 13 internes, 13 assistant resident physicians, one resident physician for the wards and one for the out-patient service. Three assistant resident physicians are assigned to the Genesee Hospital in rotation, so that only 10 are on duty at the Strong Memorial at one time. The medical service of the Genesee Hospital, under the direction of Dr. Charles Boller, and its laboratory service under the direction of Dr. J. D. Goldstein are completely affiliated with the Department of Medicine. Both of these chiefs of service are Associate Professors in this Department; both have served as chief resident physicians.

The complexion of the medical service has changed greatly in 25 years. Bacterial diseases have diminished, viral infections have increased. Patients with pernicious anemia and diabetes, who were so commonly found in the wards of yesterday, are relatively rare. Leukemia and malignant disease are increasingly encountered. Heart disease maintains its ancient place. The most striking change, however, lies in the increased number of patients with incipient disease who are admitted for diagnostic surveys. The earlier use of hospitals rendered possible by hospitalization insurance is striking. It has diminished somewhat the load placed on out-patient service, the cost of which is not borne by insurance. This undesirable aspect of the situation is probably a transient one, since the tremendous cost of hospitalization will provide a great incentive to place ambulatory care under insurance coverage.

## Department of Surgery

JOHN J. MORTON

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A DEPARTMENT of surgery in any medical school exists because of several functions which it performs. In the first place it must provide teaching of fundamental surgical principles to undergraduate and graduate medical students. Secondly, it should aim to produce well-rounded general practitioners and well-qualified general and specialized surgeons. Thirdly, it should give the best possible surgical service to the citizens of its community and environs. Fourthly, it should train men to improve upon the practice of surgery by seeking and applying basic discoveries made in the experimental laboratories. Fifthly, it should provide opportunity for the development of future teachers of surgery. What the exact order of importance is in these various endeavors remains debatable. Perhaps it should be service, teaching, experimentation, production of trained men; or any other variation which will promote the best interests of the community.

The Surgical Department of the University of Rochester School of Medicine and Dentistry started in 1924 with the appointment of the professor whose first duty was to equip the whole surgical service from the emergency wards and the surgical divisions to the operating rooms. This included all the lighting, sterilizing, and anesthesia apparatus, the furniture and instruments; in fact everything from safety pins to operating tables. It was a task of considerable proportions and much time and thought were given to this phase of the surgical planning. Then, the assembly of a teaching staff, the provision of experimental laboratories, the integration with pathology, bacteriology, roentgenology, anatomy, physiology and biochemistry—all had to be taken into consideration. Provision of shops for apparatus, splints, etc., physiotherapy, and radiotherapy was another facet of the problem. The necessary decisions were taken and developed. All the physical equipment was gradually accumulated and installed.

The original surgical staff as of 1926 consisted of Drs. John Morton and W. J. M. Scott in general surgery; Dr. David M. Davis, urology; Dr. Clyde Heatly, oto-rhino-laryngology; Dr. T. B. Jones, resident surgeon, and an interne, Dr. Samuel C. Roth. Several prominent surgeons

in Rochester served as consultants to the new hospital and gave coverage to their respective specialties. These surgeons included the late Drs. Edward Mulligan and Howard Prince in general surgery; Dr. Albert Snell in ophthalmology; Dr. Ralph Fitch in orthopedics; Dr. Edwin Ingersoll in oto-rhino-laryngology, and the late Dr. W. R. J. Wallace in dental surgery. Miss Anne Carter was the first operating room nurse supervisor. Miss Pearl Alexander was made secretary of the Surgical Department. Miss Mildred Shepard (Mrs. Einar Lie) was in charge of physiotherapy.

Very soon after the opening of the Hospital in 1926, everyone on the staff was working to capacity. It was necessary to expand the personnel as quickly as the demand required. At first there was no attempt to separate the specialty clinics in the Out-Patient Department. Patients were seen by appointment in order to avoid the long waiting period so common in dispensaries at that time. All patients were seen as they presented themselves. They were given a thorough physical examination after a careful history had been taken. And then, specialists were called to consult on conditions noted in their specialized fields. This was a splendid method for teaching, both for the students and the teachers. It represented the patient as a medical problem and tended to avoid compartmentalization. The pressure became too great, however, for this to be continued. Eventually, certain days were set aside for specialty clinics and the general group coverage was lost. Some method for the return of this type of medical evaluation is being considered currently as a teaching problem.

Additions to the staff were numerous during the first years. Dr. George McKinstry was transferred from Dr. Wilson's department and remained to become the second surgical resident. Dr. Samuel Stabins came in July, 1926, to be the first assistant resident in charge of the experimental surgical laboratory. Dr. R. Plato Schwartz joined us in August, 1926, to develop orthopedic investigation and teaching. Dr. Clyde Heatly was appointed to direct oto-rhino-laryngology in September, 1926. Other appointees to the resident staff were Dorsey Brannan, DeGraaf Woodman, Charles Creel and Robert Scarborough. Several of the practicing surgeons in town were appointed for teaching and for the care of patients in special fields of surgery. Drs. Eldred W. Kennedy in ophthalmology, Dr. Elroy J. Avery in oto-rhino-laryngology, and Dr. A. Lawrence Parlow in urology have been connected with the Surgical Department since the first year of its existence. Dr. Edgar W. Phillips (thoracic surgery); Dr. Cyril Sumner (general surgery); Dr. Clarence Costello (general surgery); Dr. Carl T. Harris (orthopedics); Dr. Raymond Hawkins (oto-rhino-laryngology); and Dr. W. R. J. Wallace (dental surgery)

of the first-year appointees have died during the 25-year period. Dr. Ralph Fitch (orthopedics) and Dr. Warren Wooden (general surgery) have retired from practice.

The first classes in clinical subjects were opened in the fall of 1927. At this time Dr. Herman Pearse elected to spend his Rockefeller Fellowship in Surgery at the University of Rochester. He became a member of the resident staff and, after his residency in surgery, stayed with us as a teacher. Dr. Lester Whitaker, also, selected this school for experimental studies on the function of the gallbladder. He was a National Research Council Fellow at the time.

The whole Hospital was gradually opened and filled. It was necessary to expand the staff to keep pace with the growth. Eight internes, assistant residents, and residents for all the services were soon added to the staff. The Hospital surgical family became a large one. The major specialties of urology, orthopedics, oto-rhino-laryngology, ophthalmology, neurosurgery, plastic, dental and oral surgery soon were represented as separate subdivisions of the Surgical Department.

Continuous changes were made in the surgical staff to meet the increasing occupancy of hospital beds. The fourth-year students were used as junior internes until regular internes could be appointed. The number of internes was increased to 10 in the fall of 1937. There were five assistant residents on the general surgical service as of that date and residencies in urology, orthopedics, neurosurgery, ophthalmology, and oto-rhino-laryngology.

Exchanges with outside schools were effected to give special training to some of our assistant resident staff. Dr. Earle Mahoney went to Cincinnati as a National Research Council Fellow. The neurosurgical residents of the Universities of Rochester and Toronto exchanged places on a two-weeks basis for several successive years. The assistant residents in orthopedics went to Boston on a rotation at the Massachusetts General Hospital under Dr. M. N. Smith-Petersen and at the Children's Hospital under Dr. F. Ober. Dr. G. B. Mider worked in cancer research in the surgical laboratories as a Donner Foundation Fellow in 1937 and as a Research Fellow of the National Cancer Institute the year following. Postgraduate summer courses in ophthalmology were initiated in 1932 and have been carried on for 17 years since. Tumor teaching rounds were made jointly with co-operation of radiologists and pathologists.

Co-operative internships with Obstetrics and Gynecology were started in July, 1938. There were 10 men appointed for a 2-years rotation through the services. Within a couple of years the number was increased to 16. Then, with the war years, a reduction to 12 was made.

The neurosurgical service was quite active in 1938. Dr. Roland Bellows



as Abner Perry Hard fellow, worked in the laboratory on experimental diabetes insipidus. An association with the Craig Colony and the Rochester State Hospital was brought about by Dr. William VanWagenen. A brain wave station in the Department of Physiology was of great assistance in the study of epilepsy. "Neurosurgical Ward Rounds" was published monthly by the neurosurgical service.

An oral and dental speech clinic was started to provide for adequate training of those children who had repairs of defects of the mouth and nasopharynx.

In 1939 a rotation of assistant residents was started with the Genesee Hospital. The orthopedic assistant residents were sent to the Massachusetts General Hospital, Boston, Mass.; to the Vermont Infanile Clinic; and to the Toronto General Hospital, Toronto, Canada, for additional special training. The Gait Laboratory was established. A follow-up fracture clinic was opened to teach end results of these severe traumas. An orthoptist was added to the ophthalmology service.

Exchange of assistant residents with Dr. Barney Brooks' service at Vanderbilt Medical School was instituted in 1941 with Dr. R. Sewell of our service exchanging with Dr. Ranson Bucholz for 6 months. Our entry into the war prevented continuation of this profitable arrangement.

The entry into World War II had a profound effect on our training program. Everything was telescoped into a rigid speed-up system to provide as many doctors as possible in the shortest time. Such a system always leads to a deterioration in quality. This nation was fortunate that the medical schools had been allowed to proceed at their own speed in training qualified surgeons for the 25 years between the two wars. Also it was fortunate that a good many young surgeons had progressed far enough in their courses so that they could be released for the national emergency. From 1942 to 1946 there was a continuous round of hurry. Two general surgical residents were turned out every year during this period. Surgical specialty residents were reduced in number. As many as possible were speeded through on 9-month shifts.

After the war, the partially trained returning veterans flooded in upon us. The hospitals already were manned adequately from the increased number of graduating physicians. But the veterans certainly deserved whatever chance we could offer. We decided to take our University of Rochester veterans back to the limit of our capacity in the order in which they had served with us. To do this, it was necessary to get appointments in other hospitals since training demands a certain amount of material, teaching, and responsibility.

The Genesee Hospital sought an educational affiliation with the School and its Hospitals in 1945. This most fortunate circumstance

made it possible to provide an outlet for some of the veterans who had returned to us. The number of assistant residents was more than doubled following the war. It soon became evident that there were too few patients for so many doctors. Other Hospital affiliations have been made with Bradford Hospital, Bradford, Pa.; Tompkins County Memorial Hospital, Ithaca, N. Y.; Clifton Springs Sanitarium, Clifton Springs, N. Y.; and Iola (Tuberculosis) Sanatorium, Rochester, N. Y. The assistant residents in general surgery now spend 6 months of their training in one or another of these outside hospitals. As long as veterans' benefits hold out, it will be possible to train this larger group of surgeons. After that, some mechanism must be found to defray the expense of such an increased staff.

Following the war a residency in plastic surgery was established. Three residents have held this position since 1945.

A rotation with the Rochester General Hospital was also established for the training of orthopedic surgeons.

The most recent change in the staff arrangement has been a return to a 1-year straight surgical internship. There is some question whether all internships should not be on a 2-year rotating basis with subsequent selection of those in the group who wish specialty training.

The function of teaching surgery to undergraduate and postgraduate students seems to have been accomplished well during the 25 years of the School's existence. Our medical students have rated well in the licensing examinations of state and national boards. The residents in surgery and in the surgical specialties have practically all met their board requirements and have received certification.

Our students who have engaged in general practice have made a good record. Their classmates who have gone into general surgery or into the surgical specialties have brought credit to their medical school.

The postgraduate students who have trained here in general surgery or in the surgical specialties have carried the reputation of the school far afield. We will have graduated 32 general surgery residents by July 1, 1950. Of these well-qualified general surgeons, one has gone into urology, two have become plastic surgeons, two have become neurosurgeons, two have become orthopedic surgeons, one has become a thoracic surgeon, two others do a considerable amount of thoracic surgery, one went into the regular army and one went into general practice. All the others are doing general surgery. We will have graduated 13 urologists by July 1, 1950. These men are all practicing their specialty.

Thirteen men have held the residency in neurosurgery and all of those still living are practicing in that field. Two neurosurgeons have died since leaving here. There have been 14 ophthalmologists and they are



Professor Morton in consultation with Dr. Earle Mahoney of Surgical Staff.

all practicing in their chosen field. In orthopedics many men have rotated through this service as partial training for general surgery. Some of them have gone back to specialization in orthopedics. Others have used the training as a basis for plastic surgery while still others have gone into general surgery. Eleven men who have been through orthopedics and have held the residency are now practicing orthopedics. The present arrangement turns out a qualified trained orthopedist every year. We have graduated 18 oto-rhino-laryngologists to January, 1950, and they are all practicing their specialty.

By the end of the first 10 years the surgical service was performing about 4,800 operations a year. This was all that could be expected from the size of the Hospital and the personnel available. A rearrangement of the operating rooms and an enlargement of the staff have made more operating feasible. The rapid turnover of patients now makes it possible to look after a greater number. The number of operations has mounted steadily till the Department of Surgery is now doing about 7,000 a year.

The character of surgery has changed a great deal in the 25 years. With the advent of antibiotics and the better appreciation of fluid balance and salt requirements, the proper use of blood and blood substitutes, the recognition of the importance of sugar, protein, and fat in body nutrition, the wide choice in selection of anesthesia, and early mobilization of patients, a new era has dawned in surgery. It is now possible to carry the surgical attack to any part of the body with reasonable safety. The infections which made such a large part of the surgery in the first 10 years have been greatly reduced. We no longer have large numbers of ab-

abscesses in the neck, or carbuncles. Brain abscesses and perinephric abscesses are no longer common. Appendiceal abscesses with intestinal obstruction following drainage are largely a thing of the past. Peritonitis has lost its terrors. Empyema has practically disappeared. Mastoid and sinus operations have become rarities. Pelvic inflammatory disease is seen much less often. Tuberculous glands and infections have been prevented, appear only in older age groups, or have been segregated in special tuberculosis hospitals. Hyperthyroidism also has been greatly reduced by preventive medicine or by the use of anti-goiterogenic drugs.

The surgery now is concerned with congenital defects, traumas, neoplasms, sympathetic nervous system disorders, some infections, obstructions, and stone. Gall stones, kidney and bladder stones still require surgery. The infections of the gall bladder, pancreas, intestines, and appendix have not diminished in frequency. Gastric and duodenal ulcers have been treated more radically than by the former limited resections or by-passing operations. Subtotal gastrectomy for ulcer, either gastric or duodenal, is more frequently employed. Vagus resection is undergoing evaluation. Approach to the upper abdominal organs or sympathetic chains is by wide-sweeping incisions through the thorax, diaphragm and abdominal wall as necessary. The sympathetic chains are removed for vascular disorders and hypertensive states, quite extensively for the latter condition. Surgery for malignancy is becoming more and more radical with such operations as total pneumonectomy, total gastrectomy, total esophagectomy, total pancreatectomy, total thyroidectomy, total prostatectomy, total cystectomy of the urinary bladder and hind quarter amputation. Abdomino-perineal resection for cancer of the rectum or variations with restoration of the intestinal canal are now commonplace. The chest is entered with impunity and the great vessels about the heart are subjected to by-passing operations, resected and anastomosed, or tied off. The heart itself is being entered to repair defects in its mechanism. The pelvic organs are removed en masse when necessary to eradicate malignancy. In such extensive operations the ureters are transplanted to the large bowel and an artificial opening is made for the latter. The ureters are transplanted also for bladder resections. The prostate is approached through the perineum, across the bladder, behind the pubis or across the urethra. Castration for cancer is a common operation.

The resident staff now performs many of these operations routinely. These would have formerly been the province of the master surgeons of the country. The surgical teaching in the School of Medicine and Dentistry has followed the precepts of Halsted and Cushing. The whole endeavor has been directed toward the respect for tissues so that damage

will be minimal and healing uncomplicated. Gentleness, pin-point clamping for hemostasis, accurate ligation, obliteration of dead space, minimum fluid loss during the procedure—all make for smoother convalescence. The staff has been exposed to this type of surgery and has had opportunity to compare it with that done elsewhere. No attempt has been made to force any ideas on the men in training. The end result depends on their own judgment of the relative values of the deliberate painstaking type versus the slap-dash speed of the preanesthesia days. The delicate handling of tissues makes for comfort in the convalescence both for the patient and for the attending surgeons.

In 1948 Dr. Herman Pearse was promoted to Professor of Surgery. He assumed the management of the teaching and the appointments to the Department, thus relieving the former incumbent of some of his responsibilities.

The staff has increased in number so that the catalogue for 1949-50 contains 85 names for the resident staff alone. This is a decided contrast to the 7 names contained in the list for 1926-27.

Now holding teaching positions in the Department of Surgery are 35 graduates of the Surgical Service and the Surgical Specialties in the School of Medicine and Dentistry including 2 professors, 5 associate professors, 5 assistant professors, and 23 instructors.

Former members of the surgical staff in other schools or departments include 3 professors, 8 associate professors, 6 assistant professors, and 5 others in teaching positions.

We have had students in training for surgery from the following medical schools: Rochester 125, Harvard 30, Johns Hopkins 20, Yale 20, Vanderbilt 13, Cornell 9, Toronto 9, Washington 8, Columbia 6, Michigan 6, Colorado 5, Iowa 5, Stanford 4, and 52 others from 31 different schools.

Foreign students have come from the Universities of Amsterdam, West China, Lausanne, Mexico, Porto Alegre, and Rome.

The staff has interested itself in the problems of surgery both in the experimental laboratories and in the clinic. A total of 379 papers had been published by members of the surgical staff up to 1948. Since then the number should go well over 400.

The problems may be classified as experimental and clinical. In the latter field new observations or changing emphasis in therapy makes it mandatory that clinical subjects be brought up to date for the staff and for the man in practice. In the laboratory, problems are translated from the clinic to see if a solution may be reached.

The problems which have interested the Surgical Department may be listed as follows:

*Morton*—experimental cancer research, bone growth, bone tumors, the sympathetic nervous system, peripheral vascular disease, intestinal obstruction, pancreatitis.

*Merle Scott*—atelectasis, gastric lesions, the sympathetic nervous system, peripheral vascular disease, hypertension, pressure regulation of lymphatic and vascular stasis.

*Pearse*—bile duct reconstruction, large vessel occlusion, flash burns.

*Mahoney*—shock, plasma, and blood substitutes, intestinal obstruction, large vessel surgery, and blood coagulation.

*Schilling*—intestinal obstruction, liver function physiology, experimental ascites, potassium exchange, intraocular cancer transplantation.

*Schwartz*—methods of recording gait, drug control of muscle spasm.

*Goldstein*—reconstruction and rehabilitation for disabilities.

*Robinson*—the submicroscopic structure of bone.

*W. W. Scott*—bladder tumors, prostatic hypertrophy.

*Benjamin*—bladder stones, anatomy and malformations of genitourinary regions, historical reports.

*Schlegel*—renal circulation.

*VanWagenen*—diabetes insipidus, epilepsy.

*Snell*—intraocular tissue transplantation reactions.

*Heatly*—esophagoscopy and bronchoscopy, bronchial reactions to foreign bodies.

*Emerson*—development of instruments and camera for esophagoscopy and bronchoscopy.

*Young*—reconstructive problems of plastic surgery, burns, cartilage grafts.

*Mider*—metabolism in cancer, experimental cancer.

*Favata*—intraocular cancer transplantation, tissue cultures.

Many medical societies have met here in the last twenty-five years. A list of those which have had importance from the surgical standpoint is as follows:

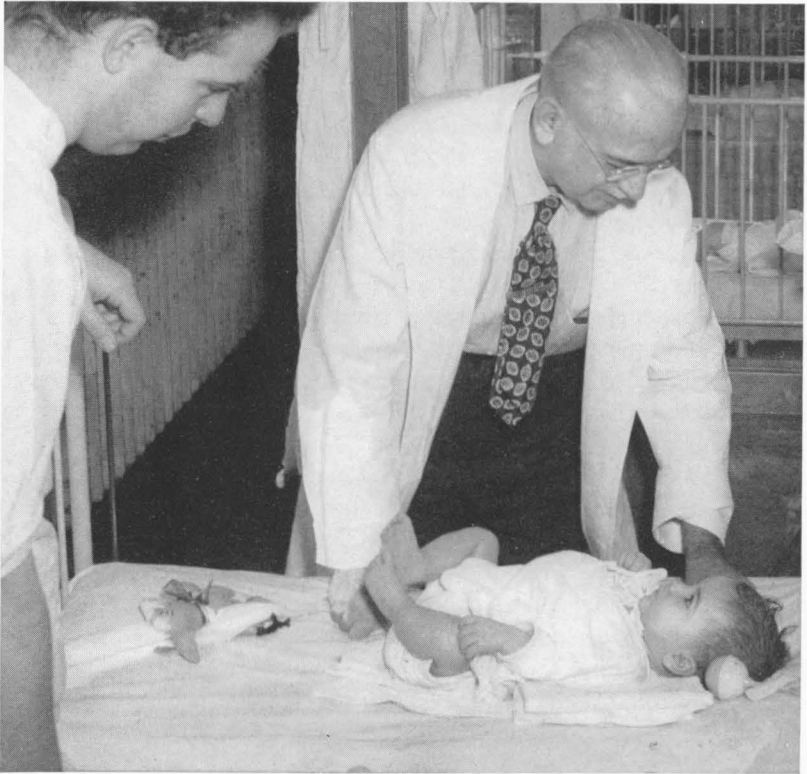
The Society of Clinical Surgery—1932 and 1941. The Robert Jones Orthopedic Society—1932. The formation and first meeting of the Society of University Surgeons—1939. The Brooklyn and Long Island College of Surgeons—1939. The Buffalo Surgical Society—1941. The American Society of Industrial Surgery—1941. The Harvey Cushing Society—1941. The New York Cancer Research Society—1941. The General Motors Physicians—1946. The Gallie Club—1947. The Westchester County Surgical Society—1949. The Morton Society—annually since 1946.

## Department of Pediatrics

SAMUEL W. CLAUSEN

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THE close relationship of Pediatrics to the other departments of the school is no doubt responsible to a certain extent for whatever success the Department has attained in teaching and research. Integration and correlation have been constant aims in the arrangement of the program of instruction.



Professor Clausen.



The creation and maintenance of an environment in which the student and the members of the junior and senior staffs could all enjoy freedom of thought, speech and action has been the aim of the director during the first 25 years of the Department's existence.

### *The Care of Patients*

PEDIATRICS deals with the nutrition, growth and development of children; with the treatment of disease in the growing child; and particularly, with the prevention of disease. For these reasons children with acute and chronic surgical complaints are cared for in the same clinical division of the Department of Pediatrics as are those with medical complaints. Members of the pediatric staff examine and advise in the care of all newly born infants. In the Out-Patient Department, a clinic is maintained for well babies; and an attempt is made to provide a medical examination for all children with surgical complaints.

### *Teaching of Pediatrics*

THE senior whole-time staff has always been small; and could not have taught effectively without the aid of the part-time staff, consisting of many of the practicing pediatricians of Rochester, who have enthusiastically served without stipend. The senior staff has included: Professor S. W. Clausen; Dr. Albert Kaiser, Associate Professor, 1928, Professor of Child Hygiene, 1949; Associate Professor Dr. Irvine McQuarrie, who became Professor at Minnesota in 1930; Dr. William L. Bradford, Instructor, 1928, Associate Professor, 1930, Professor, 1949; Dr. Fred Gachet, Instructor, 1931-1939; Dr. John Lichty, Instructor, 1938, Assistant Professor, 1940-1941; Dr. Chris Katsampes, Instructor, 1940, Assistant Professor, 1947.

Senior members of the resident staff have close contact with students during their third- and fourth-year clerkships, checking the students' observations and discussing all cases with them.

Only one other medical school in the country devotes as much time to teaching undergraduate pediatrics as does the Department at Rochester. While classes were small, this could be accomplished in our own divisions and Out-Patient Department. As the number of students increased, instruction was begun at the Genesee Hospital (1933); and fourth-year clerkships were started in our own Hospital, at the Genesee Hospital, at the Rochester General Hospital and at St. Mary's Hospital (1949).

Most of the teaching is done with cases at the bedside. Some is done by lecture, seminar, and clinic. The nursing supervisors in Pediatrics have

demonstrated nursing procedures. In 1947, Dr. Kaiser began instruction in Public Health and organized field trips in co-operation with the various child-health organizations of the city. Instruction in growth and development has not been adequately taught in the past but, with the increased knowledge of hormones, and of abnormal growth, a clinic has been started for study and teaching in this general field. The nutrition of infants and of older children is taught by Dr. Clausen and Dr. Hawley. The subject of communicable diseases is taught by Dr. Bradford. The field of child psychiatry was taught by Dr. Eric K. Clarke (1929-1938), later by members of the Rochester Guidance Clinic. With the development of the Department of Psychiatry under Dr. John Romano, child psychiatry is attracting the active interest of the students.

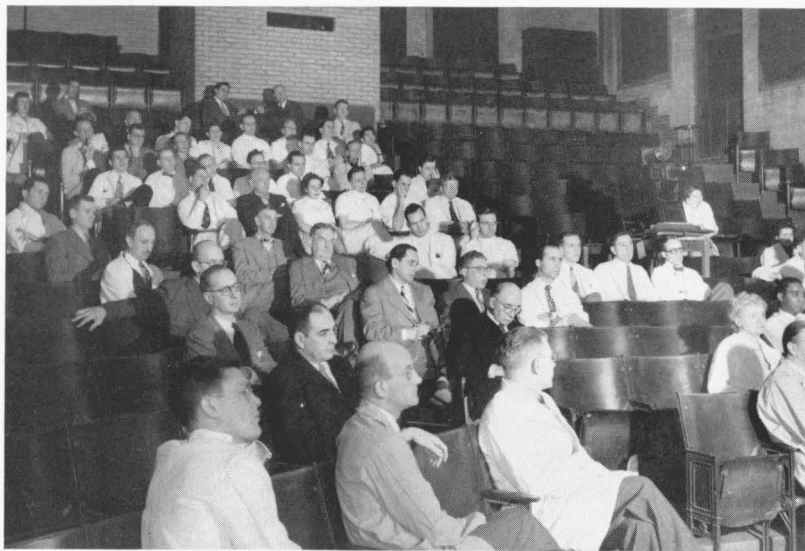
The instruction of the resident staff occupies a considerable part of the time of the senior staff. This instruction is conducted chiefly at "ward rounds"; but also in seminars and general rounds, which are attended by many of the part-time staff. For a period before the war, assistant residents were exchanged with distant clinics. In 1940 for a short period Dr. Edwards Park acted as Exchange Professor. At present, assistant residents are being rotated through the pediatric service at the Genesee Hospital.

Postgraduate courses for physicians of the region were conducted in 1948 and 1949, and were attended by about forty.

### *Research of the Department*

ONLY a very brief statement of this can be given. Many grants have been received by the Department. We are particularly grateful for grants from the Fluid Research Fund and the Fund for Teaching and Research of this School.

In the field of metabolism, Dr. McQuarrie studied the effect of the ketogenic diet and of the restriction of fluids in epilepsy. Dr. Hawley studied vitamin C metabolism. In collaboration with Dr. Edward Adolph (Department of Physiology), between 1932-1937, several studies were made of water balance. Augusta B. McCoord, in charge of the chemical laboratory since 1929, received the degree of Ph.D. in biochemistry and became Associate in Pediatrics in 1938. She and Dr. Clausen have studied the metabolism of vitamin A, and with Dr. Chesney they originated a widely used test for vitamin A absorption. Dr. Anne Emmel and Dr. Sisson, in collaboration with the Department of Anatomy, studied the nitrogen, calcium, phosphate and iron metabolism of premature infants. Dr. Gachet studied the value of the urea-clearance test in the prognosis of nephritis.



A lecture in the large amphitheatre.

In the field of infectious disease Dr. Bradford and his associates have studied pertussis—its epidemiology, its production in mice, its pathology and bacteriology, the effect of antiserum, of sulfonamides and of antibiotics and of prophylaxis in inoculated mice and in human subjects. Dr. Kaiser published a book on the results of tonsillectomy and has long been studying rheumatic fever. Supported by a Masonic Grant (1949) a study of the relationship between nutrition and rheumatic fever has been started. Studies of the relationship between dietary deficiency (especially vitamin A deficiency) in animals and resistance to infection have been carried out by Dr. Bradford, Dr. Katsampes, and Dr. McCoord.

Dr. Frank Berger, Assistant Professor in Orthopedic Surgery and Pediatrics, studied a series of drugs which cause relaxation of muscle spasm in animals, and suggested drugs of promise for study in persons with cerebral palsy. Many of these studies are continuing.

## Department of Obstetrics and Gynecology

KARL M. WILSON

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BEFORE the Department was organized, it was decided as a matter of fundamental policy that the two divisions of Obstetrics and Gynecology should be combined to form a single University and Hospital Department. By such an arrangement a much broader approach to the study of the biological and pathological problems in connection with the female reproduction system is possible. After twenty-five years the results obtained from the standpoint of research, instruction, and the care of patients appear to fully justify this method of organization.

The first head of the Department, Dr. Karl M. Wilson, was appointed in 1923. He spent the year 1923-24 working in the Carnegie Laboratory of Embryology at Baltimore under Dr. George L. Streeter. Several months were then spent in visiting the important European clinics before taking up residence in Rochester in January, 1925. At that time temporary laboratory and office quarters were occupied in the Animal House, and these were used until permanent quarters were available in the main building later in the year.

Individuals for appointment to the staff were carefully considered during this time. A first assistant, Dr. Henry L. Darner, was appointed in 1924, who, after several months in Europe, came to Rochester in the spring of 1925. The first part-time appointments were also made at this time: the late Dr. William M. Brown, and Dr. James K. Quigley, accepting positions as consultants. The first resident staff was represented by Doctors Ward L. Ekas and George E. McKinstry. The former is still connected with the Department and at present holds an appointment as associate professor on a part-time basis.

Clinical work began with the opening of the hospital in January, 1926, the first gynecological operation being performed on January 13th, and the first obstetrical delivery occurring the next day. The number of patients cared for during the first year was small, there being only seventy-six deliveries conducted, and eighty-three gynecological operations performed; but since that first year, growth has been rapid, and in 1949 there were 1908 deliveries and 1183 gynecological operations.

In August, 1926, Dr. Darner resigned in order to engage in private prac-

tice elsewhere. A successor, Dr. Robert N. Ritchie, was appointed the following year. He served the Department well and faithfully until his untimely death in 1944. Other full-time appointments were created and filled as the work increased, largely from members of the resident staff, who after completing their training, elected to continue with an academic career. These included Dr. Arthur C. Elden, appointed in 1931, Dr. Wesley T. Pommerenke in 1935, Dr. George P. Heckel in 1939, and Dr. Donald H. Kariher in 1940. All have contributed largely to the teaching and investigative program of the Department.

Undergraduate instruction was begun in the fall of 1927, when the first class reached its third year in the Medical School. This first class, being small in numbers, had the great advantage of unusually close contact with the teaching and Hospital staff and benefited greatly therefrom. The effort to maintain this close personal relationship is still continued but it is less successful with the larger classes of today.

As an adjunct to undergraduate instruction, affiliations have been established with other Rochester hospitals, namely, the Genesee, Highland, and St. Mary's Hospitals, which permit our students to attend these hospitals for additional clinical instruction during their fourth year. This has proved to be of great value and we are much indebted to the staffs of these institutions for extending this privilege. The heads of the Obstetrical Departments in these institutions, Dr. Shirley R. Snow, Jr., of the Genesee Hospital; Dr. Joseph B. Loder, of the Highland Hospital; and Dr. Harry Norton, of St. Mary's Hospital, hold academic rank in the School of Medicine and Dentistry.

Prior to the graduation of the first class in 1929, the members of the resident staff were necessarily obtained from other medical schools, but since 1929 an increasing number of our own graduates have occupied these positions. Other schools, however, have also been represented and it is our hope that this will always be the case. Dr. Jerome H. Leadley was the first of our graduates to serve successively as interne, assistant resident, and chief resident in the Department.

Postgraduate instruction has been largely limited to the clinical training given to young men and women as members of the resident staff. Many of them served as internes only. Others have been promoted successively through the ranks as assistant residents for two to three years, and of these one is appointed annually as chief resident for a period of one year. Of this latter group six have had full-time appointments on the academic staff for varying lengths of time. Others have entered practice in the City of Rochester but continue to give valuable service to the institution as members of the part-time staff, while still others have entered practice elsewhere and have become connected with other institutions.

Of those who maintained a connection with the University, two, Dr. Ward L. Ekas and Dr. Wesley T. Pommerenke now hold the rank of associate professors, while two others, Dr. George P. Heckel and Dr. Donald H. Kariher are assistant professors in the Department. One of our early residents, Dr. A. A. Marchetti, was recently appointed as Professor of Obstetrics and Gynecology at Georgetown University. Another, Dr. Willard M. Allen, a graduate of this school, was appointed Professor of Obstetrics and Gynecology at Washington University in 1940. Incidentally, Dr. Allen was the first graduate of the school to attain full professorial rank.

Three of our former residents are deceased: Dr. Albini Aubry and Dr. Jerome Leadley, each of whom was connected with the Department at the time of his death; and Dr. Leonard Woods, who had moved to Berkeley, California.

From the beginning, an active research program has been followed, and this program has been participated in by numerous members of the Department. While various problems have been the subject of study, particular attention has been paid to the toxemias of pregnancy, the physiology and pathology of menstruation, and to embryology, and many significant contributions have been made along these lines by the investigators involved. One of these, Dr. Willard M. Allen, was honored in 1934 by being awarded the Eli Lilly Prize of the American Chemical Society for his work on the isolation and crystallization of the ovarian hormone progesterone. More than 150 articles on these various subjects have been published by members of the Department.

A number of research fellows have been associated with the Department from time to time. These include Dr. Eldon M. Boyd of Queen's University, Canada, who at present occupies the chair of Pharmacology in that institution; Dr. Alexander W. Makepeace who later was connected with the University of Pennsylvania and Yale University; Dr. Paul Bloch of Lausanne, Switzerland; Dr. Nevin A. Scrimshaw with whom was associated Miss Ruth Goodland; Dr. Ellenmae Viergiver and Dr. Herbert E. Thompson, Jr. Two undergraduates have also been associated with us as research fellows during their student days.

The research program has been liberally supported by grants from the Fluid Research Fund of the institution, as well as by grants from the Ortho Foundation and the Swift Foundation.

## **The Department of Radiology**

GEORGE H. RAMSEY

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THE Department of Radiology had its inception on January 1, 1926, as a division of the Department of Medicine. Its first home was a few rooms on F III corridor of Strong Memorial Hospital. However, the number of diagnostic examinations soon greatly increased and, by 1930, radiation therapy and radiologic research had become important activities. In recognition of its growth as an essential service of the Hospital and as an important factor in the program of the Medical School, and to facilitate administration, department status was granted in 1939.

Just before and during the war the research activities of the Department were greatly expanded to include Divisions of Pharmacology and Toxicology under Dr. Harold Hodge, Biophysics under Dr. William Bale, and Radiation Biology under Dr. A. H. Dowdy. This expansion was largely to promote collaboration with the Manhattan District of the U. S. Army. After the war years, most of this large research program was detached and became in part the basis of the program of the Department of Radiation Biology, organized January, 1948. Today the Department of Radiology concerns itself chiefly with the clinical aspects of the subject, including diagnosis, radiation therapy, teaching, and research, and occupies all of F III and H III corridors.

The Department's first director, Dr. Stafford L. Warren, began his duties in April, 1926, becoming Professor of Radiology, February, 1939. He remained its active head until February, 1947, when he accepted the position of Dean and Professor of Biophysics at the new medical school of the University of California at Los Angeles. The physical arrangements and active program of the Department are in large part the result of his forethought and brilliant leadership during these twenty-one years. Dr. Warren was appointed by the U. S. Army as civilian consultant to the Manhattan District in April, 1943, and was commissioned a Colonel in charge of the medical activities of the Manhattan District, November 3, 1943. As a result of Dr. Warren's direction of the medical division of the Manhattan District, he was awarded the Distinguished Service Medal at Oak Ridge, Tennessee, November 1, 1945. In special ceremonies on April 25, 1946, Major General Leslie R. Groves, Com-



manding Officer of the Manhattan District and director of its activities, gave official recognition to the University of Rochester for the outstanding work of the members of the local project.

Following Dr. Warren's departure for California, Dr. Andrew H. Dowdy was Chairman of the Department for several months until he also left, January, 1948, to become chairman of the Department of Radiology at the University of California in Los Angeles. Dr. Dowdy had joined the Department in 1937 to take charge of radiation therapy.

Dr. George H. Ramsey is the present chairman of the Department. He first came in 1930, remaining until 1933. He rejoined the Department in 1937 as assistant professor. He was promoted to associate professor in 1942 and professor in 1946.

### *Clinical Program*

THE growth of radiology in this institution, while paralleling that of the specialty generally, has been due in part also to the philosophy and organization of the Department, its excellent personnel and its integration with the other services. The very important consultative aspect of radiology has been assiduously promoted by the Department and widely accepted throughout the Hospital and Medical School. The increase in volume of diagnostic examinations, reaching a peak during the war, may be readily determined from the annual totals at five-year intervals, as follows:

1929-30	1935-36	1940-41	1945-46	1949-50
13,426	11,279	20,342	26,256	23,233

Whenever requested, technical services also have been provided outside as well as within the Department. These have included the sending of radiographic personnel to the Department of Urology to assist in the making of retrograde pyelograms, and to the Department of Surgery for hip-nailing operations, neurosurgical procedures and the like. Radiographs are made frequently in the Department for research groups from the Departments of Anatomy, Physiology, and others.

Beginning in 1945, a trial of miniature chest radiographic examinations, under the jurisdiction of the Department, was begun on patients at the time of their admission to Rochester Municipal Hospital. The value of this procedure was soon established and was expanded to include all patients admitted to Strong Memorial Hospital and to employees and out-patients as well. Thus, the Hospital and the Department early recognized the public health value of this type of examination now adopted by many general and teaching hospitals.

The diagnostic equipment of the Department first consisted of a tilt-

table fluoroscope, a mobile x-ray unit, and one radiographic table. Today there are seven radiographic and fluoroscopic rooms containing five radiographic tables, a chest-examining unit, and two tilt-type fluoroscopic tables with complete facilities for gastrointestinal, myelographic and intravenous pyelographic studies. Body-section radiography, x-ray kymography, cardiovascular angiography, bronchography and many other special examinations are performed as required. Cineradiographic studies of patients are available on special request. The Department also maintains three examining rooms for retrograde pyelography in the Department of Urology.

Radiation therapy early became an essential clinical service of the Department. The first radium was purchased in 1926 and other amounts were added from time to time, bringing the total up to 240 milligrams. With growth, the therapy division could no longer accommodate tumor clinics and since 1942 these have been held in various out-patient departments. At the present time the therapy division provides treatment with superficial and deep x-ray therapy, radium, radioactive iodine and other radioactive isotopes. The clinical use of radiation therapy by the Hospital staff is shown in the annual totals at five-year intervals, as follows:

#### *Number of Treatments*

	1935-36	1940-41	1945-46	1949-50
<i>X-ray</i> .....	2848	6154	6881	6001
<i>Radium</i> .....	384	482	214	191
<i>Radioactive Iodine</i> .....				79
Total .....	3232	6636	7095	6271

#### *Teaching*

THE teaching program of the Department of Radiology also began in 1929 with the appointment of two assistant residents. Since then more than thirty residents have completed their training in the Department. A large majority have passed the radiologic examinations of the American Board of Radiology. These men are scattered over the country and invariably reflect credit on the Department and the Medical School. In the training of residents the maximum amount of personal experience in diagnosis and therapy under competent supervision is stressed. Residents are expected to follow up all questionable cases and as many others as possible, to be widely familiar with the radiologic literature, and are encouraged to engage in programs of clinical and experimental research.

Since 1946, a member of the resident group or a speaker invited from within or outside the Department has presented a seminar each Tuesday evening (September-June). Beginning in 1947, the Department has supplied resident assistance to the x-ray department at Genesee Hospital. The therapy training of each resident is augmented by a six months' period of study and practice at the Roswell Park Memorial Institute, Buffalo, New York.

The predoctoral teaching in the Department has been developed in the first-, third-, and fourth-year classes. In the lectures and small-group conferences, emphasis is placed on the principles of interpretation, the rationale governing employment of x-rays, and consultation with clinicians.

Training courses for x-ray technicians were first instituted in 1930. This school which ran for three years and graduated twenty students, was discontinued during the depression. However, the School was reopened in 1946 under the pressure of postwar needs for trained radiographic personnel and is currently prepared to train a total of ten radiographers a year.

### *Research*

RADIOLOGIC research was a special interest of Dr. Warren and received an early impetus in the Department. A major project begun in 1927 was the study of treatment by diathermy and artificially induced fevers. This was followed by studies of the effect of fever upon experimental animal tumors, and the combined effect of fever and x-rays. The first Ph.D. degree granted to a member of the Department was awarded to Dr. William F. Bale in 1936. His research was on the structure of teeth and bone by the x-ray diffraction method. Other research projects during the first decade included study of the radium spectrum, and the first departmental interest in cineradiography.

The war in Europe created many problems that fell within the purview of the Department. Studies were conducted on x-ray measurement, comparisons of x-ray equipment, basic studies on the biologic effects of x-rays, and the effect of x-radiation and other agents on gas gangrene. Pantopaque and other radiopaque substances were developed by Dr. Strain and his associates. These materials soon proved useful to the armed forces in rehabilitation work for the radiologic exploration of the vertebral canal.

During and after the war, a considerable amount of the Department's research activity was concerned with problems in biophysics and radiation biology. A mass spectrograph was built and used for biological

tracer work. Many radioactive tracer technics were developed, including the method with the dipping-tube Geiger counter. Problems attacked included x-ray spectroscopy of bone and teeth, and quantitative ultraviolet spectroscopy for biologic testing. Use was made of the Tiselius apparatus for research on proteins in clinical conditions and shock. Photodensitometry was adapted for biological and quantitative radiation measurements. An electron microscope was built. The radiation biology of low-frequency spectra was explored. Cineradiography, after a lapse of nearly twenty years, again became a procedure of prime interest to the Department, and under Dr. Watson's guidance has become an efficient and safe technic.

As might be expected all these varying research activities could not be housed in the clinical quarters of the Department. In 1946, the second floor of the newly completed Q wing was fitted out as temporary quarters for the study of shock, while parts of G III and H III corridors and the Animal House were equipped for the studies on gas gangrene. The subsequent growth of the research facilities that ultimately became part of the Department of Radiation Biology may be read in the account of that department.

In addition to problems of clinical radiologic research, the chief projects remaining in the Department after organization of the Department of Radiation Biology are those of cineradiography and the further development of radiopaque media.

This twenty-five-year period has been interesting and stimulating to those who have participated in its development. Following its small beginning, the Department has grown rapidly in the fields of radiologic diagnosis, therapy, teaching and research and now contributes widely to the program of the Hospital and Medical School. In recent years the load of routine diagnostic and therapeutic work has become increasingly heavy, but also more and more interesting because of the greater challenge and the greater opportunity for other clinical associations. Research in the field of clinical radiology will continue as space and personnel permit.

Other members of the Department during its first twenty-five years who acquired the rank of associate or higher were as follows:

Dr. Walter W. Fray (1926-1940)—Assistant Professor (Deceased July 10, 1940);

Mr. Francis W. Bishop (1927-1949)—Associate;

Dr. Luville T. Steadman (1932-1946)—Associate;

Dr. William F. Bale (1932.—)—Associate Professor;

Dr. Charles M. Carpenter (1932-1933)—Associate;

Dr. Sidney Larson (1937-1948)—Assistant Professor;

Dr. Roger A. Harvey (1940-1946)—Assistant Professor (now Professor of Radiology, University of Illinois Medical School);  
 Dr. William H. Strain (1943—)—Associate;  
 Dr. Eric L. Alling (1943-1946)—Associate;  
 Dr. Ruth A. Boak (1943-1947)—Associate;  
 Dr. H. Berton McCauley (1943-1945)—Associate;  
 Dr. James S. Watson, Jr. (1945—)—Consultant;  
 Mr. William S. Cornwell (1949—)—Associate.



Professor Karl M. Wilson and former members of his resident staff, after dinner held in celebration of his twenty-fifth anniversary. *Left to right, seated:* W. A. Ekas, A. A. Marchetti, K. M. Wilson, W. M. Allen, W. T. Pommerenke; *standing:* R. H. George, H. A. Spindler, J. W. Cooney, T. W. Smith, C. H. Lauterbach, F. D. Sinclair, G. P. Heckel, W. C. Rogers, H. F. Smith, D. B. Collison, J. C. Donovan, D. H. Kariher, R. J. Simmons.

## Department of Psychiatry

JOHN ROMANO

Up until 1946 psychiatry existed as a division of the Department of Medicine. The division opened for in-patient service in the Municipal Hospital, February 15, 1927, with sixteen available single rooms arranged in one corridor with a large solarium. The out-patient clinic received patients from other departments in the hospital, from outside physicians, and from many community agencies. In 1934 the Psychiatric Out-Patient Clinic was moved to Y-1 in the Municipal Hospital. One of the principal



Lobby of the Psychiatric Clinic. The plaque over the fireplace reads as follows: "This clinic and those who serve it are dedicated to the alleviation of human distress, to the enlargement of man's knowledge about himself and to the training of physicians to these ends. Those who here gain understanding and relief are constant beneficiaries of the vision and generosity of Helen Woodward Rivas."



Psychiatric Clinic Front Entrance.

interests of the division in the early years of its growth was in the field of preventive mental hygiene. This interest led, with the generous aid of the Rockefeller Foundation, to the establishment of a demonstration child guidance program within the Hospital under the joint direction of the Division of Psychiatry and the Department of Pediatrics. The division has worked intimately with the Health Bureau and additional service has been rendered to the Board of Education, the City Courts, and various social agencies.

The teaching of medical students and nurses, the supervision of house officers assigned to the psychiatric unit, and clinical service to patients, adults and children, were under the direction of Dr. Eric Kent Clarke from 1927 until 1938, at which time Dr. Clarke left to accept a post in the University of Minnesota. Dr. Clarke's responsibilities were shared with Dr. Richard Jaenike and Dr. Andrew Akelaitis. Dr. Akelaitis was occupied in investigations into the function of the corpus callosum which he pursued in conjunction with members of the Division of Neurosurgery. He worked in the Psychiatric Out-Patient Department until 1943 when he enlisted in the Navy. Following military service Dr. Akelaitis entered private practice in New York City. From 1938 and through the difficult war period Dr. Richard Jaenike assumed the major responsibilities of the division in its functions of teaching and clinical service to the hospital and to the community agencies. Dr. Frances Parsons, psychologist, and



Miss Marjorie Mann, psychiatric social case worker, both of whom have been associated with the division since the early years, were of inestimable aid to him. Dr. William Matthews, as resident and later as instructor whole-time, was responsible for the psychiatric unit (X-3) in the Municipal Hospital from 1937 until 1941. He entered the Navy and was killed in action in December, 1944, in the South Pacific. Dr. Martin Sander, instructor part-time, and various members of the part-time clinical staff shared teaching and clinical responsibilities with Dr. Jaenike. Special mention should be made of the generous contributions of Dr. Kenneth Slaght, instructor part-time, who later became Acting Director of the Rochester State Hospital and whose recent death, November 22, 1949, is deeply felt in our community.

In February, 1945, Mrs. Helen Woodward Rivas of LeRoy, New York, made a generous gift to build a psychiatric clinic and to establish a trust fund to apply to its operation and maintenance. This made possible the establishment of the Department of Psychiatry as one of the major departments in the Medical School and Hospital. Dr. John Romano was appointed Professor and Psychiatrist-in-Chief in December, 1945, and



Dr. Romano and members of his staff in the ward solarium of the Psychiatric Clinic.

was enrolled in June, 1946. The new psychiatric clinic is called Wing R of the Strong Memorial Hospital. It was begun in 1946 and was ready for occupancy in September, 1948. It faces Crittenden Boulevard, west of Wing Q of the Strong Memorial Hospital, with which it is connected by means of an eighty-foot corridor flanked by offices and clinic rooms. There are five floors above the basement floor, with facilities for out-patient service for children and adults, clinic rooms, conference and office rooms, and research laboratories. The western section of the ground floor, and the second and fourth floors remain unfinished. The third floor is the finished hospital floor and has accommodations for 34 patients. The unfinished space on the ground floor is being used temporarily for occupational therapy. In keeping with the general principles of this University Medical Center, Wing R has been intimately integrated, both in structure and in function, with the other departments of the School and Hospital. In the past 18 months, finished and unfinished laboratory space has been loaned and rented to other departments in the School. With the building of Wing R, suggestions were made for improvements and changes in the psychiatric unit in the Municipal Hospital in order that the clinical facilities would complement each other and thus serve the Hospital and the community more effectively. It is anticipated that these plans will be put in operation in the immediate future.

The major efforts of the Department since 1946 have been directed toward the building of the new wing, the development of staff and working arrangements in the Hospital, clinical service to patients in the Hospital and in the Out-Patient Department, and teaching, at undergraduate and graduate levels, of medical students, nurses, clinical psychologists and physicians. Key appointments have made possible the development of the Department in many areas. Dr. George Engel has been placed in charge of the medical liaison program; Dr. Jaenike in charge of X-3 and services to the City Courts, to the Board of Education, and to the State School at Industry, New York; Dr. Walter Hamburger, Psychiatric Out-Patient Department; Dr. Myrtle Logan, Children's Out-Patient Psychiatric Clinic and liaison work with Pediatrics; Miss Marjorie Harle, psychiatric social case work; and Dr. Frances Parsons, clinical psychology. In July, 1947, the operation of the electroencephalographic station was transferred from the Department of Physiology to the Department of Psychiatry. In July, 1949, this station was moved from Physiology to a laboratory in Wing R. The appointment of a number of practicing psychiatrists in the community to part-time consultant and instructor status has led to more intimate relationship with the practice of psychiatry in the community and has contributed immeasurably to our own development. The participation of these men, both in

undergraduate and in graduate teaching, has been invaluable. Common interests and problems have led to effective working relationships with the Departments of Medicine, Pediatrics, and Obstetrics and Gynecology. Staff appointments have been shared jointly and teaching programs established under joint responsibility. Generous contributions from the Rockefeller Foundation, the Commonwealth Fund, and the Buswell Fund have made possible fellowship appointments in these areas. A generous grant from the United States Public Health Service has assisted us in the development of both undergraduate and graduate medical teaching. In operation is a program in which our Department works cooperatively with the Department of Psychology in the teaching of clinical psychology. It is anticipated that in the near future a teaching program will be instituted for the training of student social case workers who will be added to our clinic for a winter field plan under the supervision of our psychiatric social case work staff. We plan also to develop a program for the graduate training of psychiatric nurses. Our primary interest in the teaching of medical students is to acquaint them with some of the fundamental aspects of the nature of man in his society and to indicate how personal and social forces alone, or together with physical and physiological forces, may modify, provoke, or cause illness or disability. Up to the present time the Department has not begun any systematic investigative program. Certain researches in the field of psychosomatic medicine begun elsewhere have been completed. With the completion of the building and with the establishment of a stable clinical service, investigative programs will be begun in the near future in areas of special interest to members of the Department.

## **Division of Dental Research**

NORMAN S. SIMMONS AND JOHN W. HEIN

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It was unfortunate, in one sense, that the original plans for the development at Rochester of a dental school failed for lack of students sufficient in number and qualifications to meet the standard established. However, with the discontinuance of this plan, an alternate program of graduate study was developed to train prospective dental educators and investigators in the fundamental biological sciences. This experiment in dental education has proven eminently successful. The validity of the concept that training in the disciplines of experimental research, and advanced study in the fundamental biological sciences, is a method of developing dental educators and leaders in dental research is substantiated.

The Division of Dental Research was established in 1930 with the appointment of a New Zealander, Dr. Basil G. Bibby, as the first fellow. Since then there have been 52 full-time fellows including the present members of the division. Although the majority of these men have come from widely scattered points in the United States, from Maine to California and Louisiana, many were from foreign countries, including China, India, Canada, and Colombia. Almost all have since moved on to assume responsible positions in dental education, research, or service institutions.

It is hard to realize now, with the recent advances in dental science, the resistance that was met by the early fellows among the dental educators during the '30's. Then, the Rochester fellows were considered to be neither scientists nor dentists. Every opportunity had to be taken to convince clinicians, and the leaders in dental education, that the disciplines of fundamental research could contribute to the intellectual development of educators in an essentially clinical science. The turning point came with the discovery that fluorides could reduce the incidence of dental caries. It became apparent that fundamental research could have a real influence upon the ravages of a disease which was thought manageable only through clinical restorations. This was the first real evidence that research could bear fruit and that further research was desirable. In addition, the discovery that caries and periodontal disease could be experimentally produced and controlled in laboratory animals

such as the rat and hamster gave the profession a tool by means of which research could be conducted with a clinical or practical significance. The attitude of most clinicians and dental educators changed. Now there was an obvious connection between the laboratory and the clinic, and the Rochester training program assumed a new importance.

The contribution to dental research made by the Rochester fellows can be seen, in part, in the research reports presented before the annual meetings of the International Association for Dental Research. Over a fifteen-year period from 1934 through 1948, former or current Rochester fellows presented from 15% to 35% of the total number of papers read, a major contribution itself, but still more interesting in view of the fact that there are some 50 dental schools and related institutions in this country. From the Division of Dental Research, since 1931 there have been 226 published papers, in all fields from anatomy to biochemistry, only a portion of which are of purely dental interest. There have been fellows as graduate students in every department of the Medical School, about half of whom have worked for advanced degrees. Table I shows the distribution of the fellows in the various departments and the degrees received:

*Table I*

<i>Dept.</i>	<i>Number of Fellows</i>	<i>Degrees Received</i>		
		<i>None</i>	<i>M.S.</i>	<i>Ph.D.</i>
Anatomy	5	1	4	—
Bacteriology	6	3	1	2
Biochemistry	10	3	5	3
Pathology	19	13	5	3
Pharmacology	3	1	1	1
Physiology	2	1	1	1
Vital Economics	2	1	1	—
Unattached	5	5	—	—
Total	52	28	18	10

Of the forty-six former fellows, only five are not now actively engaged in teaching or research. Table II shows the present occupations of these men. They are distributed among twenty or more educational, scientific or service institutions.

*Table II*

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Deanships . . . . .	5
Professorial Rank . . . . .	22
Other Appointments . . . . .	5
Public Health and Service Institutions . . . . .	9
Private Practice . . . . .	4
Miscellaneous . . . . .	1
Deceased . . . . .	1

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Total . . . . .	47
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Four former fellows, Maynard K. Hine, Philip Jay, Harold C. Hodge, and Basil G. Bibby, have been elected presidents of the International Association for Dental Research, the leading world-wide organization of dental research workers. In addition, Hamilton B. G. Robinson is editor of the *Journal of Dental Research* and J. Frank Hall the business manager. Many men are leading figures in other scientific societies. This is a truly remarkable record.

This program has obviously filled a great need in dentistry. It has provided the opportunity for interested dentists to grow and develop in the environment of a research institution, to explore their own capabilities as scholars, research workers and teachers and to develop the necessary critical attitudes and enthusiasm fundamental to future educators, whatever their specialized fields of interest in the clinic or laboratory.

Support has been received at various times from the Rockefeller Foundation, the Carnegie Corporation, and the Eastman Dental Dispensary. In recent years men have been appointed and supported by National Institutes of Health Fellowships. Grants-in-aid have been increasingly sought and obtained from various sources. Many desirable applications for dental fellowships must still be refused, however, because of limitations of space and funds. With some increased space available to many departments in the new wing it is hoped that it may become possible to seek additional funds for the expansion of the program.

## Special Educational Activities

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### *Student Fellows and Student Research*

DURING the subject period there have been in all 76 medical students who have interrupted their medical course for one year in order to accept a student fellowship in one of the departments. The distribution of these men by departments has been as follows: Pathology 34, Physiology 12, Bacteriology 11, Anatomy 11, Medicine 7, Vital Economics 6, and Pediatrics 1. Reliable statistics concerning the future of these men are hard to obtain but it appears that at least one third remain in some sort of academic or research medicine. This is definitely higher than the corresponding figure among the M.D. candidates as a whole. Many of these student fellows use the work done during their fellowship as the basis for a thesis for the degree Doctor of Medicine with Honor. Some of them have qualified for an M.S. degree during this research year. Others spend part of their time in assisting in the teaching program of the department. On returning to the role of medical students after completing their fellowship year these men have a new point of view to contribute which has been considered very advantageous for the class as a whole. They also provide a valuable liaison between staff and students.

A survey of departments has indicated that during the twenty-five years 207 medical students have published papers based on work done during their years in training. These students have been distributed by departments as follows: Anatomy 50, Pathology 50, Physiology 36, Vital Economics 23, Biochemistry 12, Bacteriology 12, Medicine 9, Pediatrics 6, Radiology 6, and Surgery 3. Many of these students have been authors of more than one paper. Such extra papers have not been counted unless they were published in two or more separate departments. Since there have been only 76 student fellows in all, it is evident that many students participate in productive research work who do not take out an extra year for the purpose.

### *Veteran Postgraduate Fellows*

FOLLOWING the second World War a large number of medical officers were discharged from the armed services and were eager to find oppor-



tunities in universities for further instruction in various clinical and preclinical departments. Under Public Law 346 these men were entitled to certain financial benefits from the Veterans Administration while engaged in a full-time program of training in a recognized school. Arrangements were made by Associate Dean George P. Berry with the Veterans Administration whereby the School awarded these men fellowships with stipends largely covered by the tuition supplied by the Government. Programs differed in individual cases, sometimes including a full year in one department and sometimes 6 months in each of two departments. The following table indicates the extent of this program in the period from January, 1945, to December, 1949.

	<i>Still Enrolled Dec., 1949</i>	<i>Terminated Before Dec., 1949</i>	<i>Total</i>
Clinical . . . . .	48	125	173
Preclinical . . . . .	13	82	95
Dental . . . . .	0	1	1
Hospital Administration .	1	3	4
			<hr/> 273*

\*Total number includes 26 with both clinical and preclinical training.

The total number of 247 such fellows represents a heavy load for the institution. The program provided a much-needed opportunity, however, for a large number of men, most of whom contributed largely to the work of the School and Hospital in numerous ways. For many of them it represented a first contact with investigative work and most of them continued their careers in subsequent years in academic institutions.

### *Postgraduate Training*

THERE have been three separate efforts to provide brief postdoctoral courses for physicians in the vicinity of Rochester and elsewhere.

1. The first of these is the course in *Ophthalmology* organized in 1930 by Dr. John F. Gipner with the co-operation of the Bausch & Lomb Optical Company. This course meets during the first week in August and has been held 15 times since 1930. The attendance has varied from 30 to 80. In 1940 there were 50 ophthalmologists present with 11 states represented and one member from Venezuela. The program provides instruction in the latest developments in ophthalmology and in the relation of that subject to general medicine and surgery.

2. *The Practitioner's Clinics* were organized on April 30, 1933, to meet monthly during the year except during the summer. The first meeting

was attended by about 100 physicians. The program continued successfully until September 1942 when the contingencies of World War II and the lack of gasoline required temporary discontinuance.

3. *The Postgraduate Conference* (later changed to Postgraduate Institute) was first held November 5, 6 and 7, 1936, with an attendance of 185, of which 102 were from out of town. The object of these meetings was to present interesting diagnostic clinical problems from the various departments. The last meeting was held November 11, 12 and 13, 1941, after which this program was also discontinued because of the war.

### *Graduate Students in Preclinical Sciences*

AN important part of the work of the preclinical departments has been the training of candidates for the M.S. and Ph.D. degrees under the Graduate School. During the twenty-five years 114 M.S. and 106 Ph.D. degrees have been awarded. In successive five-year periods the number of M.S. degrees were 12, 13, 22, 22, and 46; and the number of Ph.D. degrees were 7, 18, 28, 32, and 21. In general there is, therefore, a progressive increase except for Ph.D. degrees of the last five years where there has been a marked decrease due to the restrictions of the war. The distribution of the Ph.D. degrees by departments was as follows: Anatomy 2, Bacteriology 6, Biochemistry 42, Pharmacology 3, Pathology 5, Physiology 15, Vital Economics 30, and Biophysics 3. These figures reflect differences in policy or primary interest in the different departments, some of them preferring men who have already received the M.D. or Ph.D. degree elsewhere and some preferring to take medical students for one year as student fellows. A number of Ph.D. students have subsequently completed requirements for the M.D. degree also; occasionally candidates for the Ph.D. degree shift to the M.D. program and vice versa. Many students qualified for both the M.S. and the Ph.D. degrees. In several cases staff members with the Ph.D. degree have been able to obtain the M.D. degree by part-time work.

## **Societies, Clubs, Lectureships, and Seminars**

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### *The University of Rochester Medical Society*

THE Medical Society was organized in 1925 with the object of providing a forum where clinical and preclinical members of the faculty could meet for the presentation and discussion of clinical problems and current research in the Medical School and Hospital. The first item on the program at each meeting is usually the presentation of a particularly interesting clinical case. The first meeting was held on December 14, 1925, under the presidency of Dr. W. S. McCann. The speaker was Dr. Graham Lusk, Professor of Physiology at the Cornell Medical School. His subject was "The Background of Calorimetry." From time to time, other distinguished visitors have participated in the program. Space will not permit the listing of all the topics presented in the past 25 years.

It is customary to select presidents alternately from clinical and preclinical departments. Each new president is "elected" by those present at the last meeting of the preceding year, usually after some fairly obvious preliminary electioneering by the Advisory Board. Dr. Henry Keutman is the President for the year 1949-50.

### *Medical History Club*

AN informal organization known as the Medical History Club held its first meeting in January, 1927. For a period of 10 years, under the chairmanship of Dr. George Corner, meetings were scheduled approximately four times each year with members of the staff and members of the local community contributing papers on a wide variety of historical topics. On certain occasions the Club sponsored distinguished lecturers in Medical History, among whom were Dr. Charles Singer, Dr. Arturo Castiglioni, and Dr. John Beattie.

There followed an interval of similar length, during which no meetings were scheduled but interest in the subject was maintained through the establishment of the Cushing Prize awarded to the medical student presenting the best essay on a topic in the history of medicine, based on original research and deemed worthy of publication. Although wartime pressures were an impediment to such scholarly pursuits, four awards

were made. The recipients and prize-winning essays were as follows:

JEAN CAPTAIN SABINE (1938). "A History of the Classification of Human Blood Corpuscles," *Bulletin of the History of Medicine*, 1940, 8: 696-805.

KENNETT A. GREIG (1941). "A History of the Modern Development of Theories of Menstruation."

S. FARNUM COFFIN (1943). "A History of the Development of Knowledge Concerning the Physiology of the Corpus Luteum."

CHARLES KENNEDY II (1944). "An Historical Study of Wound Treatment with Special Reference to Gunshot Wounds."

During the postwar period a revival of interest in medical history originated with the students themselves and has since been promoted by them, with the co-operation of staff members. By virtue of its motivation and enthusiastic leadership, this renaissance of medical history is certain to have a vigorous and long-continued existence.

The successive student leadership of Warren Porter, Philip Dodge, Charles Luttrell, and Alexandra Feldmahn is largely responsible for the healthy growth and success of the Club in recent years. Approximately 4 meetings have been scheduled each year, beginning with dinner in the "Maple Room" and terminating in time for house staff and students to return to the floors for evening duties. The main feature has been an informal, scholarly presentation by one of the students, followed by comments or reminiscences by some staff member and a period of lively discussion. Particularly valuable has been a library display relating to the topic presented, arranged in advance of the meeting and maintained for a period thereafter. Miss Walter, Medical Librarian, and members of the Library Committee have given much time and effort in the planning and arrangement of these instructive exhibits.

### *Eastman Memorial Lectures*

THESE lectureships were established in 1933 as a contribution to the general education of the personnel of the institution. They were named in honor of Mr. George Eastman whose name does not appear elsewhere in the School to which he contributed so generously. Four speakers have usually been selected each year by a lectureship committee. Dr. W. O. Fenn served as chairman of this committee until 1945 after which Dr. Merle Scott and Dr. W. H. Hawkins occupied this position in turn. Other members of the lectureship committee have been Drs. George W. Corner, George P. Berry, and more recently, H. E. Keutman and H. E. Pearse.

The list of Eastman Memorial Lectures given to date is as follows:

- April 26, 1933. Dr. A. N. Richards—University of Pennsylvania; "Micro-chemical Studies of Urine Function."
- April 27, 1934. Dr. W. B. Cannon—Harvard University; "The History of Development of Evidence for Chemical Mediation of Automatic Nerve Impulses."
- November 14, 1934. Dr. E. J. DuBois—Cornell University Medical College; "The Surface Area of the Body and the Radiation of Heat."
- February 5, 1935. Dr. P. Rous—Rockefeller Institute for Medical Research; "Viruses and Tumors."
- March 21, 1935. Dr. F. F. Russell—International Health Division, Rockefeller Foundation; "The Continuing Need for Research in the Field of Public Health."
- April 5, 1935. Dr. D. B. Phemister—The University of Chicago; "The Growth and Repair of Bone."
- January 10, 1936. Dr. E. P. Joslin—George F. Baker Clinic, New England Deaconess Hospital; "Diabetes Today and Tomorrow."
- January 20, 1936. Dr. B. A. Houssay—Facultad Ciencias Medicas—Argentina; "Hypophysis and Metabolism."
- February 14, 1936. Dr. W. H. Howell—Johns Hopkins University; "The Relation of the Lungs to Platelet Formation."
- March 6, 1936. Dr. L. J. Henderson—Harvard University; "Fatigue."
- October 11, 1936. Dr. A. V. Hill—University College, London; "Nerve Excitation."
- November 6, 1936. Dr. R. Hoden—Cleveland Clinic; "Clinical Nutritional Deficiency Disease."
- May 24, 1937. Sir Henry H. Dale—National Institute for Medical Research, London; "Recent Evidence Concerning the Physiological Importance of Acetylcholine."
- November 19, 1937. Dr. L. U. Gardner—Saranac Lake Laboratory; "The Pathology of the Pneumonokonioses and Its Relation to Roentgenological Findings."
- December 10, 1937. Dr. T. M. Rivers—The Hospital of the Rockefeller Institute; "Poliomyelitis."
- January 17, 1938. Dr. E. L. Opie—Cornell University Medical College; "Preventive Inoculation Against Tuberculosis."
- April 8, 1938. Dr. C. S. Burwell—Harvard University Medical School; "Factors in the Course and Prognosis of Heart Disease."
- May 7, 1938. Dr. E. Hammarsten—Karolinska Institutet, Stockholm; "The Secretin of Bayliss and Starling."
- December 16, 1938. Dr. C. H. Best—University of Toronto; "Heparin and Thrombosis."
- January 20, 1939. Dr. G. C. Robinson—Johns Hopkins University; "Social Problems as a Cause of Illness."
- February 10, 1939. Dr. G. L. Streeter—Carnegie Institution, Washington, D. C.; "Embryology and Some of Its Limitations."
- April 21, 1939. Dr. R. F. Loeb—Columbia University; "Functions of the Adrenal Cortex and the Treatment of Addison's Disease."
- May 25, 1939. Dr. H. Theorell—Medical Nobel Institutet, Stockholm; "Structure and Function of the Yellow Enzymes."
- December 11, 1939. Dr. E. W. Goodpasture—Vanderbilt University Medical School; "A Consideration of Pathogenesis in Virus and Bacterial Infections."
- January 23, 1940. Dr. P. E. Smith—College of Physicians and Surgeons, Columbia University; "Some Phases of the Interrelationship between the Hypophysis and the Reproductive System."

- February 19, 1940. Dr. C. C. Little—Roscoe B. Jackson Memorial Laboratory, Maine; "Genetics in Relation to Cancer Research."
- May 10, 1940. Dr. J. T. Wearn—Western Reserve University; "Morphological and Functional Alterations of the Coronary Circulation."
- December 16, 1940. Dr. H. C. Clark—Gorgas Memorial Laboratory, Panama; "Modern Problems in the Control and Spread of Tropical Diseases."
- January 17, 1941. Dr. E. R. Long—Henry Phipps Institute, Philadelphia; "Tuberculosis in the Young Adult."
- March 7, 1941. Dr. A. Blalock—Vanderbilt Medical School; "Shock or Peripheral Circulatory Failure."
- April 3, 1941. Dr. C. K. Drinker—Harvard University, School of Public Health; "Some Practical Considerations of the Lymphatic System."
- November 13, 1941. Alton Ochsner—Prof. of Surgery—Tulane University; "Treatment of Intravenous Thrombosis."
- February 13, 1942. E. D. Adrian—Prof. of Physiology—Cambridge, England; "Sensory Regions of the Brain."
- March 30, 1942. E. A. Doisy—St. Louis, Mo.—Prof. of Biochemistry; "Vitamin K and Other Antihemorrhagic Compounds."
- April 16, 1942. Lowell J. Reed—Prof. of Biostatistics—Johns Hopkins; "Statistical Approach to Epidemic Theory."
- November 2, 1942. Claude S. Beck—Lt. Col., U. S. Army—Western Reserve University; "Clinical Possibilities of Surgery of the Heart."
- November 23, 1942. R. Hayden, Capt. (MC) U. S. Navy; "Medical Service of the Navy After the Attack on Pearl Harbor, with Comments on the Care of Battle Casualties."
- January 12, 1943. William Boyd—Prof. of Pathology—University of Toronto; "The Changing Incidence of Disease with Special Reference to Carcinoma of the Lung."
- October 6, 1943. David Bruce Dill—Lt. Col., Q.M.C.; "Recent Advances in Aviation Physiology."
- December 8, 1943. James L. Gamble, M.D.—Prof. of Pediatrics—Harvard University; "Minimal Water Requirements of Castaways."
- February 28, 1944. Tracey J. Putnam—College of Physicians and Surgeons Columbia University; "Surgical Treatment of Athetosis and Paralysis Agitans."
- May 26, 1944. Donald D. VanSlyke—Rockefeller Institute for Medical Research; "Some Phases of Renal Physiology."
- December 15, 1944. Selman A. Waksman—Rutgers University; "Antibiotic Substances (their nature, formation and mode of action)."
- February 20, 1945. Emil Novak—Johns Hopkins Medical School; "Functioning Tumors of the Ovary."
- May 28, 1945. H. Houston Merritt—College of Physicians and Surgeons Columbia University; "Causes and Treatment of Epilepsy."
- October 12, 1945. Dr. John Romano—University of Cincinnati; "Studies of Syncope."
- November 16, 1945. Sir Jack Drummond—University College of London; "Nutritional Deficiency in Europe During the War."
- April 16, 1946. Dr. A. C. Ivy—Northwestern University; "The Relation of the Gastrointestinal Hormone to the Problem of Gastric Ulcer."
- May 20, 1946. Dr. Daniel C. Elkin—Emory University; "Arteriovenous Aneurysm—The Effects on the Circulation."
- November 11, 1946. Sir Lionel E. H. Whitby—University of Cambridge; "Hematological Effects of Radiation."
- December 2, 1946. Dr. Harry S. N. Greene—Yale University School of Medicine; "The Production of Carcinomas in Transplanted Embryonic Tissues."

- March 20, 1947. Dr. Isaac Starr—University of Pennsylvania; "The Interpretation and Utility of the Ballistocardiogram."
- April 17, 1947. Dr. Alfred Gilman—College of Physicians and Surgeons Columbia University; "The Contributions of Chemical Warfare Research to Medicine."
- November 24, 1947. Dr. Herbert M. Evans—University of California; "The Internal Secretions of the Pituitary Body."
- January 23, 1948. Dr. Karl P. Link—University of Wisconsin; "The Anti-coagulant Dicumarol."
- February 26, 1948. Dr. Daniel C. Darrow—Harvard University Medical School; "Potassium and Electrolyte Metabolism in Clinical Medicine."
- April 27, 1948. Dr. Lester R. Dragstedt—University of Chicago; "Gastric Vagotomy in Peptic Ulcer."
- October 7, 1948. Dr. Arthur Hertig—Harvard University Medical School; "The Earliest Stages of Normal and Abnormal Development."
- November 19, 1948. Dr. Rene J. Dubos—Rockefeller Institute for Medical Research; "Cellular Structures Involved in the Parasitic Behavior of the Tubercle Bacillus."
- February 4, 1949. Dr. Vincent du Vigneaud—Cornell University Medical College; "Transmethylation as a Metabolic Process."
- November 17, 1949. Dr. F. S. Cheever—Harvard University Medical School; "Studies on a Murine Virus Causing Extensive Destruction of Myelin."
- December 2, 1949. Dr. D. W. Gordon Murray—University of Toronto; "Surgical Aspects of Congenital Heart Disease."
- December 8, 1949. Dr. George S. Mirick—Johns Hopkins Medical School; "Certain Factors Affecting Host Susceptibility to Vital Infections."
- February 24, 1950. Dr. C. N. H. Long—Yale University School of Medicine; "Physiology of Cortisone and the Adrenocorticotrophic Hormone."

### *Special Medical Commencement Exercises and Speakers*

DURING the war years the School, in common with other medical schools, adopted an accelerated program to increase the number of trained doctors for service. The first accelerated session began in July, 1942, and the last summer session was in 1945. The last accelerated class entered in September, 1944, and the first regular postwar class entered in September, 1945. Thus, in the 6 years from 1942 to 1948, there were 7 graduating classes and 7 special Medical School Commencement Exercises held independently of the rest of the University. The dates of these exercises and the names of the principal speakers are given below.

- March 20, 1943. Colonel Stanhope Bayne-Jones, Medical Corps, U. S. Army, Professor of Bacteriology, Yale University.
- December 18, 1943. Commander William S. McCann, Medical Corps, U. S. Naval Reserve; Charles A. Dewey Professor of Medicine, on leave, The University of Rochester.
- September 23, 1944. George Washington Corner, Director, Department of Embryology, The Carnegie Institution of Washington.
- June 16, 1945. Dr. Alan Gregg, Director of the Medical Sciences, The Rockefeller Foundation.





Surgical Clinic in the amphitheatre. *Front row, left to right:* Drs. Stabins, Morton, Schwartz, VanWagenen, Young, L. Goldstein, and E. B. Emerson.

March 23, 1946. Dr. Hugh J. Morgan, Professor of Medicine, Vanderbilt University School of Medicine.

March 15, 1947. Dr. Alton Ochsner, William Henderson Professor of Surgery, The Tulane University of Louisi-

ana School of Medicine.

March 27, 1948. Dr. Karl A. Menninger, Manager, Winter General Veterans Administration Hospital, Topeka, Kansas.

### *Interdepartmental Seminars*

THESE seminars are the outgrowth of the seminar of the Department of Vital Economics established by Dr. Murlin before the Department moved from the Eastman Building to the newly built medical school. This was a luncheon meeting until the restrictions of wartime and the number of persons in attendance made the work of preparing the luncheon in the departmental diet kitchen altogether prohibitive. After the luncheons were given up, the seminars lost something of their distinctive character but they have continued to serve as a useful forum for the presentation of research. The seminars are organized by a committee of members of the preclinical departments but the speakers are selected from the whole School and attendance for a full year provides a good survey of the varied research interests of the institution.

## **Rochester Medical Alumni Association**

JACOB D. GOLDSTEIN

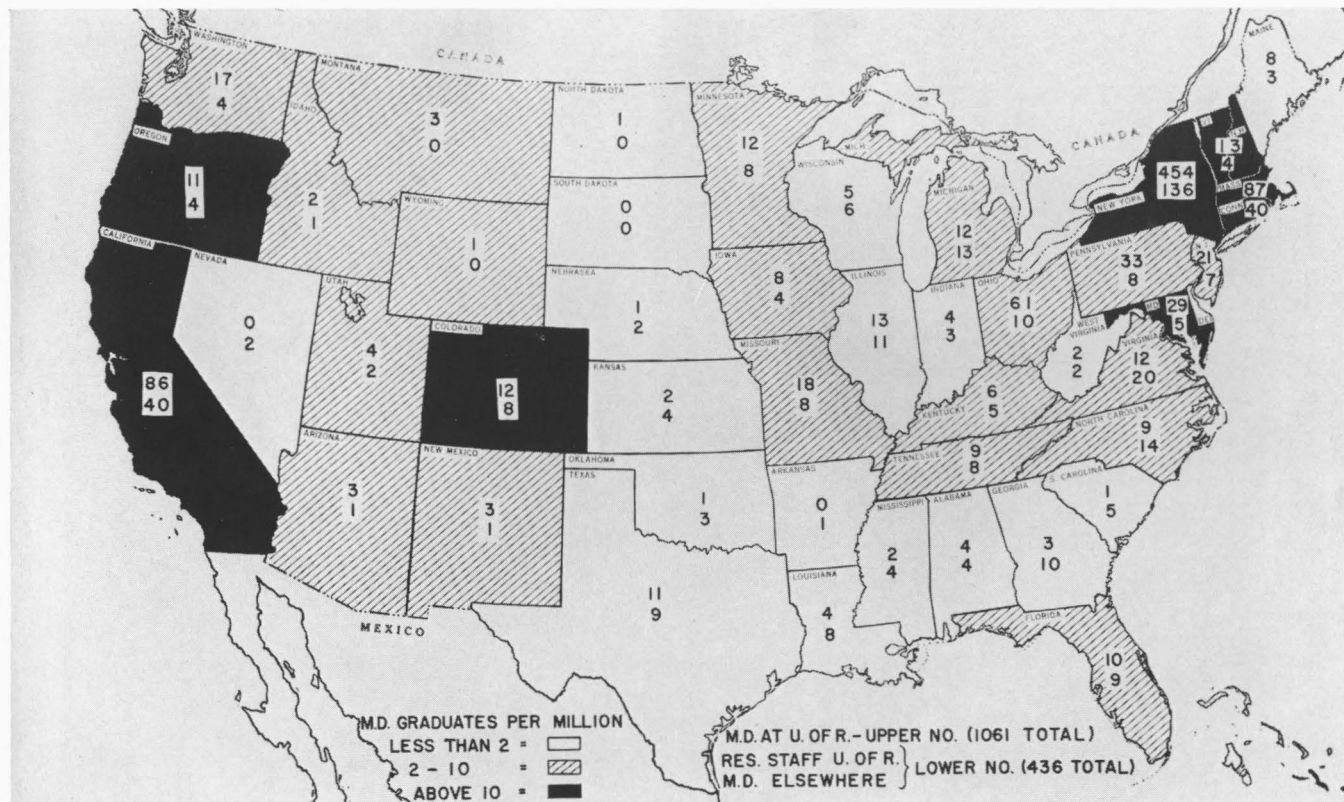
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THE development of the Association was interrupted during the war years. More recent graduates know rather little of its history, progress and aims. The available history of the organization is presented here.

The Association was organized at a meeting held on May 26, 1939. A constitution was adopted and officers were elected as indicated below. The second meeting of the Association was held on May 24, 1941. Papers were given by Professors Morton, Wilson, McCann, and Berry. At this time a committee was appointed for the purpose of developing a Medical Alumni Loan and Scholarship Fund. The committee was headed by J. D. Goldstein.

The Association did not meet during the war years but an organizational meeting was held at the medical school on February 14, 1947, and new officers were elected. The fourth meeting was held at the medical school on June 19, 1948. The scientific session included papers by Professors Whipple, Mason, Fenn, Stotz, Murlin, McCann, Morton, Clausen, Ramsey, Romano, and Hawkins. The Alumni Association Student Loan Fund was the major topic of discussion. The Medical Alumni voted to develop a fund independent of the University Alumni-Alumnae Association. This fund would be used first for loan purposes. As the fund grew it was intended to offer Alumni Prizes and Scholarships in the medical school. The decision was made that an effort to raise funds be made each year.

The fifth meeting of the Association was held on June 3 and 4, 1949. Morning and afternoon scientific sessions were held on both days with Professors Bloor, Murlin, Fenn, and Mason serving as chairmen. The two-day meeting was warmly endorsed and was voted the pattern for the future. The Medical Alumni Loan Fund was again firmly supported. The members who attended this meeting strongly expressed the desire to enlarge the activities of the Alumni Association. The officers were requested to poll the members by mail in an effort to arrive at a reunion date which would permit the largest number to attend. The 1950 reunion date was voted on by 533 graduates. A sizable meeting is expected.



Map showing the relatively uniform geographic distribution of the graduates and resident staff of the School of Medicine and Dentistry. The upper number in each state shows the number of M.D. graduates and the lower number the number of resident staff not counting those who were also graduates of the School. The shading indicates the distribution per million of population. There are 33.6 per million in New York as compared to 12.5 in California.

### *Officers of Medical Alumni Association*

<i>Date of Election</i>	<i>President</i>	<i>Vice-President</i>	<i>Secretary-Treasurer</i>
1939	Doran J. Stephens	Willard Allen	Howard B. Slavin
1941	James Conner	John Lichty	Donald Kariher
1947	Fletcher McAmmond	George Heckel	John W. Karr
1948	John W. Karr	Howard B. Slavin	John R. Williams
1949	J. D. Goldstein	Earle Mahoney	Matthew Fairbanks

### *Alumni in Service*

THE total number of alumni graduated during the 25 years was 1,104, including the class of 1950. The number graduated when the war officially ended in July, 1947, was 900. Of this number 438 served as medical officers in the armed forces, 150 of them having been in the ASTP or V-12 programs as medical students. The total number of students in the ASTP and V-12 programs was 332. Of the 1,037 students graduated through 1949, there were 637 in uniform at one time or another. Three of our alumni died in service in the Pacific area in 1944: Gordon Kenneth Lambert, M.D., 1935; Robert Douglas McKenzie, M.D., 1935; Joseph Anselm Morton, M.D., 1942.

One other alumnus died in service in Korea, December 6, 1947: Stanley Jay Cohen, M.D., 1946.

## The Medical Library

KARL M. WILSON

THE first Chairman of the Library Committee was Dr. George W. Corner, and under his supervision the development of the Medical Library was begun. The Medical School is under a debt of eternal gratitude to him for the manner in which the library collection was developed in the early years. First housed in two rooms on the second story of the Animal House from 1923 to 1925, the library was moved to its present quarters in the Medical Center in 1925. It should be recognized that the library started with literally nothing in the way of books or periodicals and over a twenty-five year period has grown to the truly fine collections of which it is now comprised.

President Rhees secured the services of Mr. J. F. Ballard to assist in purchasing the necessary volumes for a working collection. He was commissioned to purchase complete sets of medical journals, partial sets or single volumes as they appeared on the market, both in this country and abroad. Volumes pertaining to medicine were transferred



The Medical Library.

from the Arts College Library (Sibley Library) as well as some volumes from the library of the Department of Vital Economics. Many gifts were received, notably from the Boston Medical Library, the Grosvenor Library of Buffalo, the New York Academy of Medicine, and Princeton University. Outstanding among these was the gift of 4,000 volumes received in the fall of 1925 from the Reynolds Library through one of its trustees, the late Dr. Charles A. Dewey. This transfer was made with the approval of the Rochester Academy of Medicine, successor to the group of physicians which had originally collected the books. The various departmental heads, the Library Committee, and the University Librarian, the late Mr. Donald B. Gilchrist, supervised the purchase of monographs. In 1927, with the purchase of a part of the library of Dr. Philip Turner of England, an important addition was made to the section in Obstetrics and Gynecology, which is one of the largest and most complete in the library.

The library has been catalogued under the Library of Congress system, the work having been begun in 1930 under the supervision of Mr. Robinson Spencer and the cataloguing department of the University Library, and completed in 1934.

One of the most important collections in the library is the Mulligan Collection pertaining to the History of Medicine. This was made possible by the late Dr. Edward W. Mulligan, who in 1926 donated \$5,000 for the purpose, and supplemented this by similar donations for two succeeding years. The Mulligan Fund has long since been exhausted, but the purchase of additional volumes of historical interest, when opportunity afforded, has been continued, so that at present the material relating to the History of Medicine is one of the outstanding collections in the country. In recognition and appreciation of Dr. Mulligan's generosity the trustees have erected a bronze tablet to his memory in the library.

Another collection of particular importance, and again one of the most complete of its kind in the country, is the Miner Yellow Fever Collection, presented in 1926 by Mr. Edward G. Miner, a trustee of the University.

An instructive collection housed in the library is a collection of old instruments and other items of medical historical interest built up originally by the late Dr. George W. Goler and added to from time to time by gifts and purchase.

An important bequest received in 1940 was the medical library of the late Dr. Henry Buswell, consisting of 544 volumes. The library has been further enriched by generous gifts from many donors too numerous to mention individually, but to all of whom we are none the less grateful.

Since the establishment of the Department of Psychiatry, a considerable number of new periodicals dealing with psychiatry, selected with



Library Committee: Left to right: S. W. Clausen; K. M. Wilson, chairman; Miss Walter, librarian; J. A. Benjamin; E. F. Adolph.

the aid of Dr. Romano, have been added to the library.

At present, there are 54,455 volumes in the library as compared with 40,000 in 1935, while the annual circulation has increased to 19,524 volumes in the past year.

An interesting indication of the growth, as well as the value of the library, is to be noted in the figures for inter-library loans. In the year 1935-36 we received 175 volumes on loan from other libraries, and ourselves loaned 255 volumes, while in 1948-49 we borrowed only 86 volumes but loaned 483 to other libraries.

To accommodate the constantly increasing accession of books and periodicals, additional shelves and periodical cabinets have been added from time to time, but the available space for such additions is now exhausted and the work of the library has become seriously handicapped as a result of the cramped quarters. The library offers its facilities not only to staff members and students, but also to all members of the medical and dental professions and others engaged in work related to medical science and practice.

A number of interesting exhibits have been arranged from time to time, such as one commemorating the four hundredth anniversary of the work of the great pioneer anatomist, Vesalius; another commemorating the centennial of Semmelweis and his work on "Childbed Fever"; and another in connection with the centennial of the first use of chloroform as an anesthetic by Sir James Y. Simpson; also a current one com-



memorating the centennial of the birth of Sir William Osler. In each of these exhibits, original works of these outstanding individuals were placed on display. Also on exhibition have been a number of military decorations presented to various staff members and students during the war. Dr. Whipple has deposited with the library a number of awards received by him, including the Rochester Civic Medal of 1943, and the Albert David Kaiser Medal awarded by the Rochester Academy of Medicine in 1949.

The original Library Committee was composed of Dr. George A. Corner (Chairman), Dr. Samuel W. Clausen, and Dr. Stanhope Bayne-Jones. The present committee is composed of Dr. Karl M. Wilson (Chairman), Dr. Samuel W. Clausen, Dr. Edward F. Adolph, and Dr. John Benjamin.

The Medical Library is operated by a Medical Librarian under the general supervision of Mr. John R. Russell, the Librarian of the Rush Rhees Library. The first Medical Librarian was Miss Hester Hopkins (Mrs. C. P. Cochrane) who was succeeded in 1923 by Miss Olga Schaeffer (Mrs. Hawley B. Nell). Since 1929 the library has been under the management of Miss Mildred Walter, with Miss Marian Cooman as the present Assistant Librarian.

### *Departmental Publications*

THE reprints of papers published by each department have been bound at intervals in volumes of convenient size and deposited in the Library; there are now 50 such volumes representing about 3,800 separate articles. At the end of the first decade the collection of published work filled 18 volumes and included about 800 separate articles.

In addition to the above, the following members of the staff have written one or more books: Edward F. Adolph; Stanhope Bayne-Jones; Walter R. Bloor; George W. Corner; Estelle E. Hawley with Grace Carden; Estelle E. Hawley with Esther E. Maurer-Mast; Albert D. Kaiser; Albert C. Snell, Sr.; and Alfred M. Wedd.

## Athletics Building

JOHN A. SCHILLING

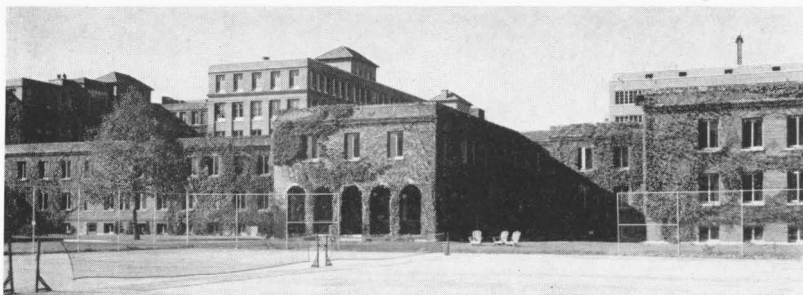
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THE desire of President Rhees and Dean Whipple to improve student health was implemented by a grant from the trustees of the University for the construction of a gymnasium (cf. page 16). The gymnasium was completed in its present form in 1933 and Dr. Fenn became the first chairman of the Athletic Committee. There was considerable competitive athletic rivalry between the various members of the senior and junior staffs and students at this period, as there is at present. The eight tennis courts were constructed at this period and ample space was available for outdoor baseball. The gymnasium when completed consisted of a large basketball floor, four squash and handball courts, a storeroom, a barber shop, a billiard room, and a large recreation room. There were three locker rooms: one for the senior staff, one for the medical students, and a third for the ladies. It was a major decision at that time, but in keeping with the general spirit of the Medical School and Hospital, to allow women to participate without segregation in the athletic activities. Since then, the female members of the faculty and student body, wives of members of the faculty and nurses have used the gymnasium whenever they wished, on the same basis as the men.

In the early years, one day was set aside as athletic day during which various members of the faculty and student body participated in competitive games, both individually and as teams. In the evening there were indoor athletic events and dancing, followed by refreshments. Dr. Stafford Warren and Dr. Metildi were said to have violently engaged with foils as part of one of these exhibition programs. Throughout the years the gymnasium has been used increasingly for social events such as staff parties and hospital personnel parties, dances and other meetings of an informal nature.

Subsequent chairmen of the Athletic Committee were Dr. Albert Snoke, Dr. Basil Bibby, Dr. Harold Hodge, Dr. Victor Emmel, and Dr. John Schilling. Through the efforts of these men the supervision and development of the athletic and social programs continued.

Two student assistants, Robert Shanewise and Arthur Hall, at present are appointed to take care of locker assignments and the towel service,



The Staff House from the tennis courts.

and to check out items of equipment. Their most important duty, however, is to organize seasonal competition throughout the year, thus assuring continuity of program. This includes touch football, basketball, squash, baseball, and tennis. In past years, Paul Rekers, Quin Serenati, and Chris Katsampes have carried out these duties. In particular, the basketball and baseball games are a source of keen competition and are of much interest to the various classes and staff members.

In 1948, the large recreation room that originally existed was divided. During the war years it had been used as a day nursery and later as a storage space. The smaller portion was used for various types of athletic exercising equipment and the larger south room was assigned to the students for use as a nonathletic recreation room. From funds they have raised by dances and co-operative efforts the students have furnished this room and have used it for informal parties and small social gatherings of an impromptu nature.

It was some time after the tennis courts were first built before anyone discovered that they were 3 feet too short on both ends. When this was corrected, the back-stops were too close by an equal distance.

The tennis courts were resurfaced with asphalt during the early war years, thus reducing the burden of upkeep. The baseball diamond lost some of its outfield and was shifted northerly with the advent of the large northwest parking lot and the completion of the Psychiatric Clinic.

The members of the Psychiatric Staff now utilize the facilities of the gymnasium in the off-hours for physical recreation of their patients. Various groups within the medical family are assigned evenings in the gymnasium for activities such as badminton, basketball, dancing and the like.

It is felt that this increasing use of the gymnasium for athletic and social purposes has exerted a unifying as well as healthful influence which amply justifies the original expectations.

## Animal House

FRIEDA S. ROBSCHT-ROBBINS

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THE present Animal House started officially as a two-story Research Laboratory and was the first building to be constructed in the School of Medicine and Dentistry. The four corner areas served as temporary offices and laboratories for Dr. Whipple, Dr. Faxon, Dr. Bloor, and Dr. Robbins. One side of the upper floor housed the fast-growing Medical Library. Within a short time the heads of the School of Nursing and the Department of Dietetics occupied additional space on the second floor.

The entire building became a testing ground for different kinds of furniture and laboratory equipment. No two faucets were alike, various types of sinks were installed, tables were constructed of different heights, and a variety of doors were used. Thus decisions were reached concerning the type of equipment to be ordered or constructed for the main building.

Some of the rooms on the lower floor were equipped with cages for dogs and in December, 1922, these were filled with the anemia colony brought from California for the investigations of Drs. Whipple and Robbins. This colony consisted of twenty-three adult dogs and fourteen puppies of mixed white bull terrier and Dalmatian stock. A few days later the first shipment of monkeys arrived for the work of Dr. Corner.

All other available space in the Animal House was occupied for office or laboratory purposes by the newly arriving members of the Medical School and Hospital staff. By the time livable space became available in the main Medical School Building, the Animal House or Research Laboratory was filled to capacity. As construction was completed in the main building, the Hospital staff and later the School faculty moved over. The "Research Laboratory" then truly became an "Animal House."

The wooden partitions were replaced by the more sanitary fireproof hollow-tile walls in 1943. As research problems expanded, some remodeling became necessary and all remaining space on the lower floor was fitted with cages for dogs. Various departments found it necessary to add to the animal house personnel for their own research activities so that the total number of caretakers on both floors increased to fifteen. Two rooms are used for kitchens for the preparation of food for the animals

and two others are maintained for minor operative procedures in order to minimize the transport of animals into the Medical School Building.

In 1946 an Animal House Committee was appointed to define policies of management. The members of the present committee are Dr. Mahoney, Surgery; Dr. Scherp, Bacteriology; Dr. Nasset, Physiology and Vital Economics; and Dr. Robbins, Pathology, as Chairman and Manager of the Animal Building.

Considerable difficulty in obtaining a sufficient number of dogs and cats for the various research problems constitutes our main problem. Space limitations remain a serious problem.

A typical census of animals in the Animal House would show 4 sheep, 225 rabbits, 1,100 mice, 8,000 rats, 380 guinea pigs, 13 monkeys, 12 turtles, 285 dogs, 20 cats, and 400 hamsters.

The Animal House is run on a budget. This is augmented by monthly charges for board for all animals. The charges are nominal because of the co-operation of the Hospital in furnishing food scraps free. Animals purchased by the Animal House are resold to the various departments. Funds accumulated in this way are used for maintenance and repair of the building. This general Animal House policy and the methods of animal care used here have served as a pattern for similar installations elsewhere.

Rules as to the care of experimental animals are posted throughout the building and it is the duty of the Animal House Committee to insure adherence to these rules. All animals are well cared for and are given kindly treatment. In 1947 the University was licensed to engage in animal experimentation in accordance with the provisions of the new state law. Since that time the institution has been receiving a monthly visit from the State Inspector. The Animal House is always open to visitors for personal observation of animal care and treatment.

Special mention should also be made of an attractive bronze tablet installed in 1941 in the front of the Hospital dedicated to experimental animals who have given their lives for the welfare of mankind and the advancement of medicine. This tablet was reproduced at Dr. Whipple's request from a similar tablet designed by Miss Amelia Peabody and erected in the George F. Baker Clinic in the New England Deaconess Hospital.

## Honor Societies and Prizes

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### *Alpha Omega Alpha*

ELECTIONS to this honorary medical fraternity are made by local members and members of the Faculty from a list of the highest ranking students in each class as supplied by the Dean's Office. Drs. McCann, Slavin, and Mahoney have served at various times as Faculty Advisor to supply continuity in policy. The Rochester Chapter was established in 1929. The charter members as well as members elected in subsequent years are listed below.

On the day of the annual dinner when newly elected members are initiated, it has been customary to arrange a special lecture by some distinguished speaker. A list of speakers who have served in this capacity is also included.

### *Alpha Omega Alpha Members*

NAMES are arranged according to the year of election. A date after a name indicates the year of graduation or the year of holding office where that is different from the year of election. Offices held are indicated: p. = president, v.p. = vice-president, s.t. = secretary-treasurer.

- 1929 Charter Members: Prof. William S. McCann; Prof. Karl M. Wilson; Prof. Walter R. Bloor; Prof. Wallace O. Fenn; Doran J. Stephens, s.t.; Jacob D. Goldstein, p.; Pasquale F. Metildi, v.p.; Edward J. Manwell (1930), p.
- 1930: Karl Gruppe, v.p.; Kay Liber (1931), v.p.; Einar Lie; Francis Nance (1931), p.; Janet Rioch, s.t.; Joseph Victor.
- 1931: Lyman Boynton; Lowry Davenport; Esther Maurer (1931-32), s.t.; M. S. Shilling; Herbert VanEpps.
- 1932: Willard M. Allen; Henry Brody; Louis A. Goldstein; John A. Lichty, Jr., p.; Robert C. Manchester, v.p.; Joseph K. Newton; Abe J. Tatelbaum.
- 1933: C. M. Carpenter, p.; David L. Fertig; Paul A. Lembecke, s.t.; Abou D. Pollack; Howard B. Slavin, v.p.; Peter A. Snell; Louis Spekter.
- 1934: Gilbert S. Coltrin; Percival A. Duff; Michael J. Lepore; Earle Mahoney, p.; Lawrence A. Mucci, v.p.; Theodore R. Seidman; James F. Conner (1934), s.t.; (1935) p.
- 1935: John F. Conway; Norman Egel, s.t.; John D. George; Helen B. Hart; Sidney Leibowitz; Howard F. Levenson; Edith G. Mead; Gordon M. Meade, v.p.

- 1936: Gervase J. Connor; Sidney Feyder; Donald H. Kariher, s.t.; John W. Karr, v.p.; Allen A. Parry; Fred V. Rockwell, p.
- 1937: Dwight E. Clark, p.; Robert A. Hettig, s.t.; Frank W. Reynolds; Virgil C. Scott, v.p.
- 1938: George K. Anderson; Fred A. Bryan, v.p.; Joe W. Howland, p.; Harry Kaufman, s.t.; Edward A. Stern; Raymond S. Szatkowski.
- 1939: Harold M. Clarke; Warren E. George, v.p.; Joseph G. Ham; Robert D. Moore; William F. Owen, Jr., s.t.; Lawrence E. Young, p.
- 1940: Harold A. Friedman, s.t.; Arthur W. Hazenbush; Roger G. Metcalf; Walter A. Noehren; Salvatore S. Piacente; Albert C. Snell, Jr., p.; Grant Morrow; Jacob W. Holler (1941), p.; Harry D. Kingsley (1941), s.t.
- 1941: Clement A. Finch; Leon A. Heppel, v.p.; Arthur Kornberg.
- 1942: Charles Gaylord; Theodore H. Noehren, v.p.; Albert P. Rowe; Margaret B. Stringfellow, p.; Allan P. Turner; Elijah Adams, s.t.
- March 1943: Robert B. Bernstein; Arthur L. Haskins, Jr.; Frank W. McKee, v.p.; James Sharp; Willis G. Swalbach, s.t.; Helen E. VanAlstine; Louis J. Zeldis, p.
- December 1943: William S. Adams, s.t.; Robert A. Bruce; Alfred M. Decker, Jr.; Leonard D. Fenninger, p.; William W. Howe, Jr., v.p.; George E. Mavor; Eddy D. Palmer; Herman D. Zeifer; John R. Carter; Albert A. Kattus, Jr.
- September 1944: Ellen C. Binckley; Henry T. Clark, Jr., p.; Dean H. Fisher; John F. Harrah, v.p.; Leon L. Miller; James V. Neel, s.t.
- June 1945: Frederick W. Anderson, p.; David S. Baldwin; Paul A. Dewald, s.t.; Anne F. Emmel; Priscilla L. Foote; Anthony J. Izzo, v.p.; Jeffrey E. Morris.
- March 1946: Kelly McK. Berkley; Chauncey G. Bly, p.; William A. Clay; Donald E. Gregg; David R. Hawkins, s.t.; Kenneth S. Holt; John H. Kennell, v.p.; James Danos Leidholt.
- March 1947: Clement A. DeFelice; Victor M. Emmel, v.p.; Robert E. Gosselin; John K. Irion, s.t.; James V. Maloney; William L. Parry; Mary B. Rothbard; William F. Scherer; Robert L. Tuttle, p.
- March 1948: Richard J. Blandau; Philip R. Dodge, p.; Marvin A. Epstein; John R. Jaenike; Antonio F. LaSorte; Louise H. Ormond; Jean B. Peters, s.t.; James L. Secrest, v.p.
- June 1949: Ruth E. Anderson, s.t.; Thomas B. Barnett; James A. DeWeese; Jay C. Hornberger; Maurice L. Kelley, Jr., v.p.; Robert B. Pfeffer; William O. Robertson, Jr., p.; Richard B. Tobin; Ben T. Uyeno; Virginia VanGeyt.
- June 1950: Elisha Atkins, v.p.; Arthur R. Clement; Neil J. Elgee; Alexandra Feldman, s.t.; James J. Ferguson; Robert E. Nyatt; Richard K. McEvoy; Grove G. Wiley, p.

### *Alpha Omega Alpha Lectures*

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| May 2, 1929. Initiation and Installation.<br>Dr. William W. Root, Founder and National Secretary-Treasurer of A.O.A. | May 22, 1931. Dr. Warfield Longcope.<br>"Science and the Humanities in the Practice of Medicine." |
| —"History, Aims and Objects of A.O.A."   | April 15, 1932. Dr. Samuel C. Harvey.<br>"The Healing of Wounds as a Phenomena of Growth."        |
| June 5, 1930. Dr. Cornelius P. Rhoads of Rockefeller Institute. "Immunity in Experimental Poliomyelitis."            | June 1, 1933. Dr. William B. Castle, Asst. Professor of Medicine, Harvard Uni-                    |



- versity. "The Etiology of Pernicious and Related Macrocytic Anemias."
- February 9, 1934. Dr. John Peters, Professor of Medicine, Yale University. "The Exchange of Water and Solutes in the Human Body."
- February 15, 1935. Dr. Charles A. Doan, Michigan. "The Spleen and the Hemolytopoietic Equilibrium."
- May 9, 1936. Dr. David Barr, Professor of Medicine, Washington University, St. Louis, Missouri. "The Significance of the Adreno-Cortical Syndrome."
- March 20, 1937. Dr. Edward Churchill, Professor of Surgery, Harvard Medical School. "Thoracic Surgery—Pneumectomy and Lobectomy."
- March, 1938. Dr. John Homans, Clinical Professor of Surgery, Harvard Medical School. "Development of the Lymphatic System."
- January 28, 1939. Dr. A. A. Weech, Associate Professor of Pediatrics, Columbia University. "The Serum Proteins—Their Behaviour in Health and Disease."
- March 2, 1940. Dr. Wilder Penfield, Professor of Neurological Surgery, McGill University, and Director of Montreal Neurological Institute. "The Central Cortex—Localization of Functions and Epileptic Patterns."
- April 25, 1941. Dr. Willard M. Allen. "The Corpus Luteum Hormone—Progesterone."
- April 8, 1942. Dr. Fuller Albright, Harvard Medical School. "Some Clinical Experiences with Disorders of the Steroid Metabolism."
- January 18, 1943. Dr. George W. Corner, Director of Dept. of Embryology, Carnegie Institution, Washington, and ex-Professor of Anatomy, University of Rochester. "A Medical Journey to Argentina and Uruguay."
- November 19, 1943. Dr. W. Edward Gallie, Dean and Professor of Surgery, University of Toronto. "Royal Canadian Medical Service in the War."
- August 2, 1944. Dean George H. Whipple, University of Rochester. "Blood Proteins—Patterns in Research."
- April 27, 1945. Lt. Comdr. Wm. C. Holt (MC), U.S.N.R. "Psychiatry in the Navy."
- March 15, 1946. Dr. Carl Binger, Asst. Professor of Clinical Medicine (Psych.), Cornell University School of Medicine. "The Doctor's Dilemma."
- March 7, 1947. Dr. Hans Selye, University of Montreal. "The Diseases of Adaptation."
- March 22, 1948. Dr. Homer Smith, Professor of Physiology, N.Y.U. Medical School. "Renal Physiology—Salt and Water Balance."
- May 27, 1949. Dr. Stanhope Bayne-Jones, first Professor of Bacteriology, University of Rochester, now President of the Joint Administrative Council of the N. Y. Hospital and Cornell Medical Center. "The Control of Typhus in World War II—An Example of Cooperative Military and Civilian Preventive Medicine."

### *Doctor of Medicine with Honor*

THE degree Doctor of Medicine with Honor was instituted in 1934 at the time when the requirement for a reading knowledge of German for all students entering the clinical years was given up as impractical. In order, however, to recognize in some way, those students who could use a foreign language in the writing of a thesis, the Honor Degree was established. Other requirements were excellence in scholarship and a thesis based on original investigative work. The Honor Degree Com-

mittee consisted of W. O. Fenn, Chairman; Wilbur K. Smith; and S. W. Clausen. In 1950 Dr. Elmer Stotz became chairman. The requirements for the degree were slightly modified in 1947 when only 1 foreign language was required and it became possible to substitute other unusual scholarly achievements in place of the thesis requirement. During the later years of the war the number of Honor Degrees awarded was considerably diminished but on the average there have been nearly 4 per year. Degrees with Honor have been awarded to the following:

- 1934: Michael J. Lepore; Earle B. Mahoney.  
1935: Gordon M. Meade.  
1936: Gervase J. Connor; Sidney Feyder; Donald H. Kariher; Allen A. Parry; Max H. Presberg; Fred V. Rockwell.  
1937: Dwight E. Clark; Virgil C. Scott.  
1938: George K. Anderson; Joe W. Howland; Thomas A. Weaver, Jr.  
1939: Herbert R. Brown, Jr.; William Fisher Clark; Warren E. George; Roger A. Harvey; William W. Stiles.  
1940: Ruth A. Boak; Arthur W. Hazenbush; Grant Morrow; Charles L. Spurr.  
1941: Clement A. Finch; Leon A. Heppel; Jacob W. Holler; Arthur Kornberg; Charles W. Lloyd; Frank P. Smith; Theodore B. Steinhausen.  
1942: Elijah Adams; Robert W. Cordwell; Benedict V. Favata; Albert P. Rowe; Charles C. Shepard; Richard H. Steckel; Allan P. Turner.  
March 1943: Frank Wray McKee; Louis J. Zeldis.  
December 1943: William S. Adams; Robert A. Bruce; John R. Carter; Scott F. Coffin, Jr.  
September 1944: James V. Neel.  
June 1945: Leon L. Miller; Nevin S. Scrimshaw.  
March 1946: William A. Clay; James A. Rafferty.  
1948: John B. Field; Richard J. Blandau.

### *Sigma Xi*

THE expansion of graduate teaching and research at the college and the development of the medical school aroused an interest in the establishment at the University of a chapter of Sigma Xi, the National Honorary Scientific Society. On December 2, 1925, a meeting of local members of the Society was called by H. L. Fairchild, J. J. Chambers, and J. R. Murlin. The meeting was attended by a total of 30 members, who decided to form a Sigma Xi Club with J. R. Murlin as chairman. On May 3, 1930, the club was formally installed as a chapter of the National Society on the petition of 30 of the University members, 12 of whom were from the School of Medicine and Dentistry. Since 1930, the chapter has elected to full membership 110 from the faculty and 71 from the graduate students and medical students. Many of these new members now are actively engaged in research and teaching in medical centers throughout the

United States and in several foreign countries. Furthermore, all of the full-time and many of the part-time faculty are members in the following categories: 2 honorary, 98 full, and 13 associate members. This number represents a 12-fold increase over the original medical school membership and is approximately one-third of the total local membership. The members from the medical school have been active in the interests of the chapter. Eight of the past presidents of the chapter and a corresponding number of other officers have come from the medical school.

### *The Doran Stephens Prize*

THIS prize was established in 1942 by contributions from alumni in memory of Dr. Doran Stephens who died March 19, 1941. Dr. Stephens was a graduate of the class of 1929 and was later Assistant Professor of Medicine. The income of this fund is awarded by a vote of the Executive Committee of the Alumni Association to the student whose personality and ability promise to develop some of the characteristics so well shown in the professional life of Dr. Stephens. The amount of this award is not fixed. Those who have received this award are as follows: 1942, Louis J. Zeldis; March, 1943, John F. Harrah; December, 1943, James V. Neel; September, 1944, Frederick W. Anderson; June, 1945, William A. Clay; March, 1946, Robert L. Tuttle; March, 1947, William F. Scherer; March, 1948, John R. Jaenike; June, 1949, Thomas B. Barnett.

### *The Borden Undergraduate Research Award in Medicine*

THIS award is given for excellence in research without regard to scholarship and carries a stipend of \$500.00. This award was established by The Borden Company. Names of the recipients are engraved on a bronze plaque on the wall of the library. Those who have been honored by this award are: March, 1946, William Addison Clay; March, 1948, Victor Meyer Emmel and Richard Julius Blandau, jointly; June, 1949, Thomas Buchanan Barnett with Honorable Mention to Charles Nelson Luttrell, Jr., and Eugene Jonas Towbin.

Other prizes are the *Robert N. Ritchie Memorial Fund Prize* awarded to William Franklin Scherer in March, 1948, and the *Walter B. Cannon Prize*, for research in physiology by medical students, awarded to Eugene Jonas Towbin in June, 1949.

## The Next Twenty-five Years?

GEORGE H. WHIPPLE

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TO COVER this question one should be a radio commentator or a prophet and the writer does not qualify. When one suggests that certain things may happen during the next twenty-five years, it perhaps may be defined as wishful thinking, but we hope for friendly understanding of the following statement.

It is our belief and devout hope that the *medical student classes will not be increased in number* as this would inevitably change the informal type of teaching in small groups and impair the quality of instruction. The School and Hospital rate high in the excellence of the instruction given to medical students, and postgraduate fellows, including internes and residents. Every effort will be made to choose the very best medical candidates from the great numbers of applicants for this determines in large measure the excellence of the finished product—the practicing physician. It is unrealistic to make such choice on scholastic record or aptitude test scores alone, as everybody must realize that the patient chooses his or her physician not because of scholastic rating (usually unknown to the patient) but because the physician has personal qualifications which gain and hold the liking and trust of the patient.

The Strong Memorial and Municipal Hospital beds are adequate for the teaching of the various types of predoctoral and postdoctoral students but that does not preclude the construction of added wings for a women's clinic, and for larger service and research in pediatrics, in geriatrics, in cancer therapy, in neuro-surgery, in orthopedic surgery, in diseases of the heart and vessels, in eye diseases, in dermatology, and allergic diseases.

The diseases of older people (geriatrics) bring more and more patients to hospitals and present the problems of better treatment in this age group. To meet this need there may be state and government support but the space need is apparent and will eventually bring into being a special unit for modern investigation of these diseases and the resulting improved treatment. Custodial care alone with inadequate and outmoded therapy will not long be tolerated.

Public health and preventive medicine are gaining increasing recogni-



The Admissions Committee: Miss DeBrine, W. R. Bradford, Dean Whipple, W. S. McCann, W. O. Fenn.

tion and support. The emphasis now is on preventive medicine and the past twenty-five years have observed many diseases brought under control (for example, diabetes, pernicious anemia, pneumonia, and sepsis) and others prevented (for example, diphtheria, typhoid fever, and yellow fever). This trend will continue and there is prospect of tuberculosis control and elimination within the next generation. Better teaching in preventive medicine calls for more space, more trained teachers and investigators. The returns on this investment will be large.

"Continuation Centers" have been built in some state medical schools. This term is used for a unit concerned with refresher courses and for the postdoctoral training of physicians often in general practice. Such centers have dormitory rooms, conference and lecture rooms and cafeteria service. In these centers are given clinics, laboratory courses or seminars which may occupy a week or more. The physicians in a considerable state area are notified of the courses and sign up for them. The physicians spend a week or more living in this center where they work all day and most of the evenings to learn new treatment and better methods of diagnosis, all to the advantage of their patients on their return home.

The library is the heart of the school and is properly located in its very center. Growth demands for bookshelf space, for reading and seminar rooms, display cases and historical treasures, exert pressure and have a strong appeal to all friends of the school. A memorial room would naturally be a part of that expansion.

Pharmacology, toxicology, and therapeutics cover an important area which concerns preclinical and clinical teachers. Their efforts are coordinated. Space is needed in the school area to expand the teaching and research in pharmacology (the study of new drugs, their testing, chemical analysis and eventual synthesis—for example, penicillin). Toxicology is strongly represented in the Atomic Energy Project.

A clinic for the study of diseases and function of the eye would be a logical development in Rochester where so many agencies and individual

laboratories are concerned with the manufacture of optical apparatus and lenses and related research, including physiological optics.

Modern research and teaching, diagnosis and testing of new drugs in the present-day laboratories call for the use of various types of animals, each best suited for some particular work or test. The Animal House contains in special cages many types of experimental animals, including monkeys, dogs, cats, rabbits, hamsters, sheep, rats, mice, guinea pigs, frogs, toads, chickens, a variety of birds, reptiles, including lizards and turtles. Each animal requires special living quarters or cages, daily cleaning and feeding, various room temperatures and isolation from others. A large technical staff serves the modern Animal House and insures the best of care. As the need for more animals is a part of almost all research programs, the pressure for more space is just as acute in the Animal House as in the laboratory area. The knowledge of the essentiality of animal experimentation is becoming widespread through the sympathetic interest of many newspapers, periodicals and books. Animal quarters of adequate size and equipment speed the study and conquest of disease and will interest friends of medical progress in the years to come.

Important developments during the past decade in medical anesthesia have been in new types of anesthetics and in new techniques of administration. It is hoped that opportunities will be provided at this Medical Center for the training of young doctors in this branch of medicine and it is proposed that a full-time physician be appointed to direct a Division of Anesthesiology closely integrated with the Department of Surgery.

In the shifting pattern of medical and hospital practice, it is evident that in the future more people will be cared for on their feet and fewer on their backs. Many thoughtful observers point out the need for better diagnostic facilities for patients who do not otherwise require bed care and it is frequently stated that medical centers could be of greater diagnostic assistance to family doctors. Diagnostic clinics have been established in many cities and it is believed that this Medical Center could conduct such an activity, without financial loss, and with advantage to the patients and the profession in this area.

Although there is no desire for expansion of the Center beyond the teaching needs and reasonable community service responsibilities of the School of Medicine and Hospital, nothing is static in medical education or in medical and hospital care. It has been found desirable in some cities, for example, to centralize in a few hospitals the medical care of children's diseases. Similarly, at this Medical Center it is possible that a separate wing devoted largely to pediatrics may be provided to improve the facilities for in-patient and out-patient care of children.

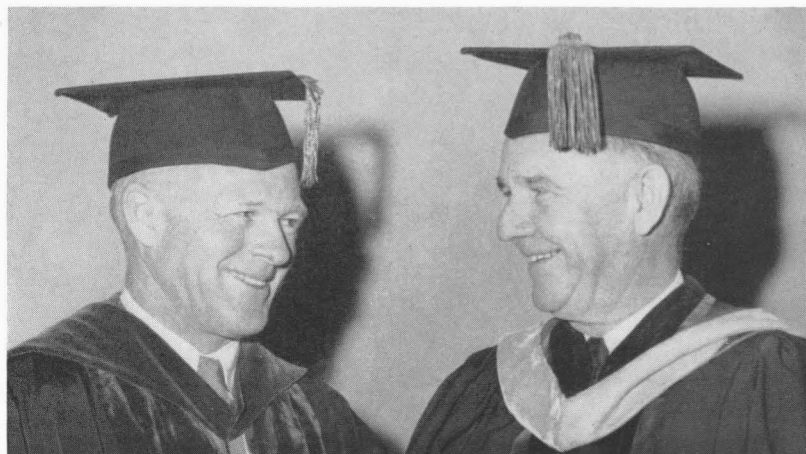
## Milestones

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- 1921: Appointment of Dr. George H. Whipple as Dean. (May 2)  
1923: Contract with City for Municipal Hospital. (April 25)  
1924: Laying of Cornerstone. (June 14)  
1925: Instruction begins for the first class. (September 21)  
1926: Strong Memorial Hospital opens for patients. (January 4)  
1926: First patients in Municipal Hospital. (July 30)  
1929: Founding of Rochester Chapter of Alpha Omega Alpha. (May 2)  
1929: Graduation of first class. (June 17)  
1931: Miss Clare Dennison became Director of the Nursing School in place of Miss Helen Wood, retired.  
1932: Mr. George Eastman deceased. (March 14)  
1932: Dr. George P. Berry appointed Professor of Bacteriology in place of Dr. Stanhope Bayne-Jones, resigned. (July 1)  
1933: Completion of Athletics Building.  
1933: First Eastman Memorial Lecture. (April 26)  
1934: Award of Nobel Prize in Medicine to Dr. George H. Whipple. (December 10)  
1935: Dr. Basil C. MacLean replaces Dr. N. W. Faxon as Hospital Director. (August 1)  
1935: Alan Valentine appointed President in place of Rush Rhees, retired. (September 1)  
1935: Inauguration of President Alan Valentine. (November 14-15)  
1935: Addition to Staff House.  
1935: Addition to Helen Wood Hall.  
1938: First renewal of 15-year (April 25, 1923) contract for Municipal Hospital. (April 25)  
1939: Division of Radiology becomes Department of Radiology. (July 1)  
1940: Dr. Karl E. Mason appointed Professor of Anatomy in place of Dr. George W. Corner, resigned. (July 1)  
1941: Opening of Wing Q. (May)  
1941: Pearl Harbor Day. (December 7)  
1943: Million-Volt X-Ray laboratory opened. (January)  
1943: Contract with Manhattan Engineer District for studies under Dr. S. F. Warren on medical aspects of atom bomb. (March)  
1943: First ASTP and V-12 students in uniform. (July)



- 1945: V-E Day. (May 8)
- 1945: Dr. John R. Murlin retires, Department of Vital Economics combined with Department of Physiology. (July 1)
- 1945: V-J Day. (August 14)
- 1945: Dr. John Romano appointed Professor of Psychiatry. (December)
- 1945: Genesee Hospital affiliated with the Strong Memorial Hospital. (December)
- 1946: Dr. A. H. Dowdy appointed Professor of Radiology to succeed Dr. S. F. Warren, resigned. (June)
- 1946: Dr. Harold C. Hodge appointed Professor of Pharmacology and Toxicology in charge of the course in Pharmacology.
- 1947: Dr. Elmer Stotz appointed Professor of Biochemistry in place of Dr. Walter Bloor, retired. (June 1)
- 1947: Opening of Edith Hartwell Clinic in LeRoy, New York. (October 15)
- 1947: Dr. G. H. Ramsey appointed Chairman, Department of Radiology to replace Dr. A. H. Dowdy, resigned. (December)
- 1947: Establishment of Department of Radiation Biology as Atomic Energy Project, with Dr. H. A. Blair as Director. (December)
- 1948: Second renewal of 10-year contract for Municipal Hospital. (April 22)
- 1949: Dedication of Psychiatric Clinic, Wing R. (March 31)
- 1950: Opening of Wing O for Atomic Energy Project and Cancer Research. (February)



The last degree awarded by Alan Valentine (left) as retiring President of the University is the Honorary Degree, Doctor of Laws, awarded to Dean Whipple (right) on June 12, 1950, at the Commencement exercises.