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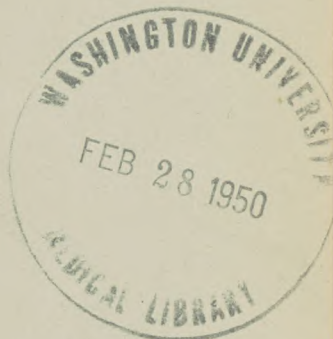
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WASHINGTON UNIVERSITY MEDICAL ALUMNI QUARTERLY



*Published in the Interest of
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- The Physician and the Law — *Robert A. Moore, M.D.*
- Proceedings of Washington University Medical Society
- Report on Dormitory Center Campaign
- 1950 Alumni Clinical Reunion — May 5 and 6

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The Physician and the Law^{*†}

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LAW IS THAT part of human knowledge which is concerned with the preservation of the social health of man. Medicine is that part of human knowledge which is concerned with the preservation of the physical and mental health of man. Thus, these two large fragments of knowledge, represented by two honorable professions, have much in common and, in fact, have the same basic philosophy—to preserve health. Both at times consider individuals and at times, groups of individuals.

A break in social health is crime if it involves a few individuals, anarchy or revolution if more participate, and war if a large group takes part. It is probably significant that medicine has comparable words for disease; thus one speaks of sporadic disease, endemic disease, epidemic disease and pandemic disease as the number sick of the disease increases from a few to the greater part of the world.

* Reprinted by permission from the Journal of the Missouri State Medical Association, 46: 779-788, November, 1949.

† Presented as the First Annual Vincent Park Williams Lecture of the Jackson Medical Society, Kansas City, Missouri, April 27, 1948.

The armamentarium of law is a body of agreements between the members of society which is called common law, constitutional law, statutory law and judicial law. These agreements are entered into, or more exactly stated, are enacted for the common good, and either for the preservation of social health or for the cure of social disease. The administration of the laws is delegated to a group of men functioning as police officers, judges, lawyers, bailiffs, sheriffs and others.

The armamentarium of medicine is a mass of scientific information on the nature, cause, diagnosis, treatment and prevention of disease. Each fact of medical science corresponds to a law and relates to one facet of the problem of preservation of health. New facts are constantly added as new laws are enacted. The facts of medicine are utilized by the physician, the nurse, the laboratory technician, the dietitian and others to prevent or cure disease.

The complete analogy is that law protects man from man, while medicine protects man from bacteria, viruses and the other causes of disease.

Whenever two branches of learning are closely correlated and even integrated as are medicine and the law, inevitably there are conflicts. No matter how intimate the relation between the two, development of each is independent. Although progress appears superficially as a smooth, steady, upward surge of man toward a healthier, freer world, actually it is a series of steps. The steps in each field of activity are unequal in height and at times the masons of one staircase get ahead of the masons of another.

It is not difficult to see in the pages of history where the inequalities were so great as to lead to sudden reform or even revolution; witness the reformation, the renaissance, or the French and American Revolutions.

Today there is an inequality which bids fair to strike a harder impact than any yet experienced by man. Scientists have discovered how to transmute the elements with at times explosive force before sociologists and experts in human relations have formed the basis for a healthy world society. As a matter of fact, there has already been a wait of several hundreds or thousands of years on the latter to equalize the discovery of the bow and arrow and gunpowder.

When the inequalities are small or touch only a relatively few people, the impact on society is minimal and is not always apparent. Law and medicine in the last hundred years have developed unequally and now is the time to correct the situation. At the risk of a charge of partiality and bias, this theme

will be developed on the generalization that scientific medicine is several steps ahead of the law.

A second generalization is that society is becoming increasingly complex because of increasing knowledge and a larger world population.

Take the basic proposition of population as an example. There are about two and a quarter billion people in the world today. Not so many years ago there were only two billion, and in another twenty-five years there will be three billion. Food must be raised, harvested, transported, stored, processed and marketed in an increasing amount. Each step of the process must go forward. The slightest inequality may be disastrous and mean famine and death in some place.

Both medicine and law are caught in this maelstrom. There are so many laws today that not even lawyers are familiar with all of them. Medicine has become highly specialized. There are fourteen specialty boards and several more unofficial specialties of medicine.

This introduction sets the basis for a discussion derived from two generalizations combined into one—the complexities of modern society make inequalities in social structure and though more apparent, the end result of which inequality is conflict and a delay in the development of civilization. The role of the physician and the law in the solution of this problem will be discussed in four categories: the physician as a citizen, the physician as a witness, the physician in law enforcement and the physician in crime prevention.

THE PHYSICIAN AS A CITIZEN

In the last century the physician in a small community was frequently the first citizen. He was respected for his medical ability, for his unselfish devotion to a great calling, and for his general judgment of men and things. There were few community activities in which he did not take part.

Despite the fact that the physician is the best educated person in the community, at least in years—seven to eight years of college—the medical profession has today largely lost that leadership. There are four general reasons for this; first, the emergence of other leadership groups; second, the growth of urban population centers; third, the transition of medical education from general education in the broad sense to a purely scientific education; and fourth, an increasing mistrust of the motives of the medical profession by the public.

There is little that can be done directly about the first of these—the emergence of other leadership groups and the growth of urban centers. In fact, both are desirable for modern society and should be encouraged by everyone, including the physician. But physicians should not stand idly at the roadside and watch the world go by.

The medical profession cannot expect to participate in the leadership of all or even most things, but is about to, or perhaps has already, lost the leadership in its own field—health—to other groups, particularly the welfare group, largely because the physician concerns himself with his own problems and is not first a citizen, and then a doctor.

Rarely does the physician take time from a busy practice to serve as an informed, interested citizen except when medicine or the medical profession is directly concerned or threatened. It is impossible today to separate medical care from health care and to distinguish health care from welfare. The preservation of health means not only protection from infectious agents, but adequate housing, nourishing food, recreational activities, youth centers, vocational guidance, physical and mental rehabilitation and a host of other activities.

Who has a broader view of this segment of social problems than the physician? If there is no one, and I believe there is not, then the physician should be the leader, whether it is a voluntary or operational phase. This does not mean that he should support every harebrained idea which it is claimed will benefit the public. The true leader is out in front and not behind or off at the side fighting off attacks.

The third point, the change in the content of the education program, is the cause of a serious defect of society—a partial or complete loss in the social consciousness of the better educated groups. It applies not only to medicine but to many other areas and professions.

The desire and the demand for factual scientific knowledge by the pre-medical student and medical students are so great that little or no time remains for a general cultural education. Social consciousness is a cultivated attribute of man, not one with which

he is natively endowed. The child is essentially a self-centered organism and it is only by education that a sense of responsibility to his fellow man is developed. Some of this education is in the home, but increasingly as the higher ranges of education are approached it is in the classroom and laboratory.

The fourth point is the increasing distrust of the motives and objectives of the medical profession by the public. This is most regrettable but true. A survey made some years ago by the Michigan State Medical Society showed 28 per cent of the public "do not believe doctors are as honest as they should be in all dealings with patients." The Public Relations Counsel who made the survey had the following comment. "You may say 'That isn't so bad—not many of them think we're actually dishonest'; but it is bad. It does not make any difference what their reasons are, the fact remains that 28 per cent of the people of Michigan believe the medical profession is not as honest as it should be. You may say 'They probably think other professions (including the advertising business) are far from honest.' That doesn't make any difference either."

The recent publicity about overcharging in the Veterans Administration, kickbacks by optical shops and laboratories and refusal of physicians to accept night calls intensifies this distrust. Some of this distrust stems from a misunderstanding of motives. One should always be sure he can give an affirmative answer to the question "Will this improve medical care for the people?"

and ignore the question "Will this benefit the medical profession?"

The great majority of physicians are in medicine because of a sense of service and not for the financial return. In fact, no physician has ever accumulated a fortune from the practice of his profession. Their lives are devoted to the prevention and cure of disease. But, in doing this, they must not isolate themselves in an "ivory tower." They must be citizens, they must have a highly developed social consciousness, they must provide leadership in many fields, particularly health, and they must constantly strive toward the day when the function of medicine will not be to cure disease, but to preserve health.

Specifically, the physician, as the protector of the health of the people, must promote the passage of laws which will improve health and must act vigorously against enactment of laws which will endanger health.

Laws relating to the practice of medicine must be watched to guard against exploitation of the public by quackery. This is done not to benefit physicians but to protect those who become ill. This is a constant fight as medicine becomes more complex. There are always attempts to find a short cut as a member of the healing arts or to foist an unproved quick cure of disease on the unsuspecting.

Laws concerning public health are of vital interest to the physician, not just quarantine regulations but all manner of laws and regulations. Inadequate treatment of garbage is probably the basis of the endemicity of trichinosis. Inadequate inspection of restaurants

may be responsible for serious enteric disease. Lack of rubbish collection breeds rats, and rats and the insects on rats carry disease.

Laws in many other phases of human life might be mentioned: fortification of bread with vitamins, slum clearance, and health of school children, to mention only a few.

Medicine has the information and means of improving health, but it is necessary to apply them properly. Medical science has progressed ahead of the law. The physician should lead toward an equalization.

THE PHYSICIAN AS A WITNESS

It is as a witness that the physician has his most intimate and frequently uncomfortable contacts with the law. In fact, the contacts are so uncomfortable that most physicians decline to appear voluntarily for either the defendant or plaintiff in civil suits.

This situation is most undesirable because it is the physician who usually has the most essential information on which civil suits resulting from trauma are based. Why is it that physicians have developed an antipathy to appearing as a witness? Many will say it is because they were browbeaten, mistreated, cajoled, or ranted at by the attorney for the other side the last time they appeared.

The intention is not to defend lawyers, but there is a logical background for that attitude, and some corrective measures are indicated. While there are many characteristics of court procedures, there are three which appear to have particular bearing on this problem—the adversary system, the demand

for exact facts and the resolution of a conflict of facts or opinions.

The adversary system is the heart of our freedom. Two opposing individuals or groups, one of whom has been injured either figuratively or literally, come before the court to settle the differences of opinion. The accused person has had his “day in court.” Every witness who appears then must accept the right of the opponent to question him or to break down his story. At times, rightly or wrongly, attorneys use stratagem, subtle accusation, or even verbal intimidation to accomplish this. They know that when a human being is angry his thoughts are not well ordered and he may easily be caught in an inconsistency. A tiny inconsistency is in a few minutes a mighty break, and all of the testimony of this person is figuratively impeached.

Supposedly, lawyers are officers of the court and are only seeking to bring out the truth. It is not advocated that the adversary system be abolished, but there are better ways to elicit the truth than are used by many attorneys.

Similarly, the decision in a suit which may involve life itself must be based on exact fact, and it would be hypocrisy for one who claims to be a medical scientist to urge anything less than the exact truth. But, again, there are limits to the exact truth, at least as far as medicine is concerned.

The exact truth as applied in court requires a flat answer of yes or no. There is practically no single question in medicine which can be so answered. Suppose a physician is asked, “If it be proved that this patient had cancer and

was untreated, do you believe, doctor, that he or she will die of the disease?" The superficial answer is yes, yet there are about forty undoubted examples of spontaneous cure of cancer in the medical literature.

Or, "Did the blow in the abdomen cause the cancer in this patient?" Perhaps, but certainly not a positive yes. Many people suffer from a blow to the abdomen and never develop cancer. Yet there are too many sequential observations of trauma and cancer to deny a relation. And, most important, how can it be certain that the cancer was not already present at the time of the blow? But, the lawyer is not satisfied with this in-between position, maybe yes and maybe no. Perhaps he tries to force an exact answer, or perhaps he poses a hypothetic case and soon has the physician giving an exact answer when he never intended to do so.

Then after hours of this, another physician goes on the stand. He, the equal of the first in education and experience, gives completely different answers.

The simple deduction from all this is that medicine is not an exact science, but much of it is a matter of judgment. When court procedures were established two hundred to five hundred years ago, medicine was much more exact because physicians did not know enough to realize what they did not know. It is the old story that the freshman is an expert and knows it all, but when he becomes a senior he is not so sure.

What is the solution? Simply, it is the appointment and payment of all medical experts by the court. Qualified

lists of experts in various specialties could easily be established. This would not necessarily end differences in judgment, but at least the differences would be between experts and not amateurs. Science would no longer be born anew in every law suit in which two experts disagree.

The third point is the resolution of a conflict of facts or opinions. Procedure in this respect is illustrated by a case relating to a person's sanity. Numerous friends and relatives testify that they noticed this or that queer or normal action. Then one or more physicians testify for the plaintiff's attorney that they believe the person of unsound mind. This is followed by an equal number of physicians called by the defendant's attorney who swear, just as sincerely and vehemently, that it is their opinion that the person is of sound mind.

The case now goes to the jury, which decides from the conflicting evidence on sanity. This is in line with our democratic traditions and is something the English speaking world has fought for and held to tenaciously for a thousand years—the right of trial by a jury of equals. But consider an analogous situation. A patient is admitted to the hospital. The symptom is pain in the right upper quadrant without tenderness. The white blood count is 12,000. Doctor X, one physician called by the patient, after a thorough physical examination concludes that the diagnosis is acute cholecystitis. Doctor Y, another physician called by the patient, also examines the patient and concludes that

the diagnosis is coronary occlusion. There is a difference of opinion.

To continue the analogy, the two physicians would then go out on the street to call in twelve citizens and present their respective opinions. The jurors after deliberation would decide whether the patient has acute cholecystitis or coronary occlusion. Fantastic? Yes, but it is exactly what we do in our courts every day—ask those who know little or nothing about a complex scientific subject to decide between two conflicting opinions. Not so many years ago, in a famous paternity suit, after an array of competent immunologists testified unanimously that the accused could not possibly be the father, a jury decided that he was.

The solution is simple—the appointment of qualified referees in cases involving scientific facts and reliance on them to decide conflicts. This, of course, must be done in such a way as not to impair the time-honored right of trial by jury.

On the second phase of the subject, the physician and the law, it is concluded that medicine is in advance of the law. Corrective measures to improve court procedures and to utilize more effectively modern scientific knowledge are urgently needed.

THE PHYSICIAN IN LAW ENFORCEMENT

In the third topic, the physician in law enforcement, there is the greatest discrepancy and inequality between medicine and the law.

In fact, there is no word to describe this inequality except archaic. The present system for the utilization of scien-

tific and medical knowledge in law enforcement dates from medieval times when the king, needing someone to make sure that he got his share of all treasure trove washed onto the shores of England, appointed coroners.

Although England has gradually changed the concept, duties and qualifications of coroners, the United States for the most part retains the concept of the coroner of Eighteenth Century England which our forefathers brought with them.

To be specific, in Missouri if there is a casual or accidental death, the coroner is directed to take charge of the body and determine whether or not there has been a violation of criminal law. To do so he convenes a jury of six tried and true citizens and this jury is instructed "by a view of the body" to determine "how and by what means" this person came to his or her death.

The coroner is elected, and unfortunately in many counties the position is looked upon as a minor or major political plum to be given to a faithful party worker who may or may not have knowledge of law enforcement, but almost always has no training or experience in scientific crime detection. The coroner's jury most likely is composed of those with little or no higher education, people who are there probably as a matter of political patronage.

It is fantastic that the American people in this modern age entrust to persons with no background and with no training the direction and determination of the question of whether or not a crime has been committed.

It is true that the coroner may call

in a physician to perform an autopsy. But every physician is not capable of performing an autopsy, and the day has come when not every pathologist is capable of performing all medicolegal autopsies. The reason for believing this is that scientific crime detection demands specialized training and points of view which are not possessed by the general pathologist and certainly not by all physicians.

The plan which is suggested to replace the present medieval coroner system is relatively simple. It is based on the generality that those trusted by the people to use modern scientific methods in crime detection shall be trained for this type of work. Several subgeneralizations follow: first, that these officers of government shall be appointed on a civil service plan and, second, that the plan shall be state-wide rather than county-wide in order to bring the same type of service to all communities.

It has come to be accepted in this democratic government that nonpolicy making officers shall be appointed. There is as much sense in electing police officers, employees of municipal power plants or teachers as there is in electing the agent of government who investigates crime.

A state-wide plan is necessary if all regions and counties are to have equal service. There are wide expanses in Missouri in which the demand is not sufficient to justify employment of a local medicolegal examiner, yet these rural areas need his services as much or more than the urban regions. It is also an accepted principle of government that all people shall have the same

advantages, and taxes collected need not be expended in the same ratio geographically. This principle is widely applied to schools and roads.

Through the efforts of the medical and legal professions the coroner is no longer a constitutional officer in Missouri. The new constitution contains no mention of the office or person. Hence by an act of the legislature a new plan could be put into operation.

Specifically it is proposed that an office of state medicolegal examiners be established in the Division of Health and Welfare. This office, centrally located in Jefferson City, would employ ten to twelve trained pathologists who would be stationed at seven or eight key points in the state. Certainly one would be in Kansas City and one or two in St. Louis. In addition a central or branch laboratory of toxicology would be established. The central office would have available immunologists, anthropologists and other skilled personnel to assist in a case anywhere in the state. Finally, a physician or pathologist would be designated in each county to make preliminary investigations.

The plan might work as follows: a person is found dead. The local police and local representatives of the medicolegal examiners are called in. If the circumstances are at all unusual, the regional medicolegal examiner would be sent for. He would collect all scientific evidence—including the performance of an autopsy if indicated—and with the assistance and counsel of the branch or central laboratory come to a conclusion concerning the manner of death. At the same time police officers

and the sheriff, or the sheriff, would make an investigation. All observations and conclusions would then be placed before the district attorney or a judge for action.

It should be noted that the medicolegal examiners would rarely collect evidence that by itself made a decision of innocence or guilt. However, they would furnish valuable pieces of information which, when fitted with other evidence, would make a conclusive case. In other words, medicolegal examiners should not act as an independent unit, but rather they should work more closely than coroners ever have with the police, sheriff or government agencies.

The cost of such a plan would not be significantly greater than the present cost under the coroner system, a system which costs the people of Missouri not less than \$135,000 a year.

The law today does not take advantage of the great fund of scientific information available for crime detection and law enforcement. The time is long past due when the situation should be corrected.

THE PHYSICIAN IN CRIME PREVENTION

It is becoming increasingly apparent that most of those who commit crime have diseased minds, and disease of the mind is one of the aspects of medicine. The term diseased mind means not just the manifest psychoses known to everyone but also the emotional instabilities and maladjustments which are far more common and of greater importance to the maintenance of a healthy society.

In primitive society man punished

his fellow man who broke the rules for common good by eliminating him completely and forever—capital punishment. As civilization progressed capital punishment was reserved for the more serious crimes, and involuntary detention was substituted for lesser crimes. Little attention was given to the conditions of the detention.

Just before and after 1800 the basic thought of modern criminology emerged—detention under conditions which will lead to reform and reassimilation into society on discharge. To do this, sanitary conditions were improved, recreational facilities were provided and industry established both to keep the men busy and to teach a trade. Then came partial segregation by the establishment of reformatories in contrast with penitentiaries.

What has been done is only a beginning. The philosophy of reform is correct, but reform of a person with a behavior problem or a social maladjustment is something more than mere detention under good conditions.

It is here that medicine has something to offer—first, research in the mental patterns of those who commit crime and, second, treatment of the inmate by psychiatrists and clinical psychologists. Only then will the efforts of the social and welfare worker be of lasting benefit.

The social stability of man is largely set during childhood. Behavior problems, insecurity and antisocial attitudes originate in the formative years. At first they are slight and can be corrected easily. Later they are ingrained and not easily shaken off. To protect inno-

cent members of society from crime calls as much for preventive measures as for detention and attempted cure after the crime has been committed.

Child delinquency is one of the major problems of society, and medicine can contribute more than any other discipline to its solution. The establishment of child guidance centers or youth development centers is a necessity for the future.

One broad policy of such a clinic would be to provide a comprehensive program of rehabilitation of children so they may become useful members of society and contribute to the economic life of the nation. Translated into detail, this policy means that the clinic would have a basic staff of pediatricians, psychiatrists, psychologists, teachers and social workers. The staff would see all the children and would give treatment in their respective fields.

As examples of this policy, a few cases may be cited. A child is made fun of by his or her schoolmates and is on the road to an antisocial career. There is a physical defect such as "winged" ears, perhaps no worse than many other children have, so that the parents have given little thought to it. A good talk with the staff of the clinic reveals the real cause of the antisocial behavior. The child is referred to one of the plastic surgeons of the hospital for correction of the abnormal ears. After the operation, the child returns to the clinic and with a little help from a sympathetic psychologist is led back into a normal childhood. A potentially antisocial individual of the next generation has been saved.

Another child has developed an antipathy for school, the reason for which is not apparent. Preliminary examination in the clinic shows that the real difficulty is an inability to read. This has led to a poor scholastic record, reprimands by the teacher, scorn by some classmates and eventual dislike of school. Skillful guidance in the clinic by a gifted teacher quickly corrects this deficiency in reading skills and the child returns to a school life which is enjoyed. A potentially illiterate adult of the next generation has been saved.

Finally, another child is irritable and becomes resentful of all authority at home and at school. It is only a short step to disrespect for constituted law. A careful study in the clinic reveals that the mother is a highly emotional person. There is little wonder that the child is pulled first one way and then another and has an unhappy home life. The problem is discussed with the mother and she is treated in the clinic or is referred to a psychiatrist. A possible criminal of the next generation has been saved.

Here is a major crossroads where the physician and the law meet and where medicine can contribute to the social health of the next generation. As the twig is bent, so grows the tree.

CONCLUSION

A philosophic theme has been presented—the complexities of modern society make inequalities of social structure, and though more apparent, the end result of that inequality is conflict and delay in the development of civilization.

This theme has been applied to the physician and the law with the conclusion that there are gross inequalities wherein the law has not fully utilized modern medical knowledge for the improvement of social health.

Physicians and medicine are willing and able to provide the leadership needed to make their small contribution to the preservation of health—physical, mental and social—for a freer and happier world.

Proceedings of Washington University Medical Society

The Washington University Medical Society has had two very successful meetings so far during the current school year. More than 375 persons attended the meeting of January 11 when a program on hypertension was presented and officers for 1950 were elected.

New officers are: president, Dr. Gustave Dammin; vice-president, Dr. Heinz

Haffner, '35, and re-elected as secretary, Dr. Robert J. Glaser. Councillors elected for 1950 are: Dr. C. Barber Mueller, '42; Seymour M. Monat; Dr. Gilbert Forbes; and Dr. Harvey Lester White '20.

Printed on the following pages are papers presented at the meetings of November 2, 1949, and January 11, 1950:

Papers Presented on November 2, 1949:

THE DIRECT DETERMINATION OF BLOOD GAS TENSIONS AND ITS CLINICAL APPLICATION

Albert Roos, M.D., and Harrison Black, M.D.

The Laboratory of Applied Thoracic Physiology

Using a modification of the technique of Comroe and Dripps for the direct determination of blood gas tensions (minute bubble equilibrated with a relatively large amount of blood and subsequent analysis of the bubble), the factors influencing the accuracy of this method were studied. Significant findings were:

1) At oxygen tensions above 100

mm. Hg. accurate results could be obtained.

2) By using a gas mixture with a pO_2 of 85 mm. Hg. for equilibration, dependable results could be obtained with blood samples in the expected arterial range (pO_2 of 50-100 mm. Hg.).

3) Carbon dioxide tensions deter-

ined by this method were consistently about 5 mm. Hg. below the expected value.

The total gas tensions of blood samples were also measured by the use of a capillary manometer and revealed values approximately 20-30 mm. Hg. below atmospheric pressure in the mixed venous blood of anesthetized dogs. The method was also used to study the

arterial blood changes before and after the administration of lipiodol for bronchography in six patients. Three of these showed no significant change but the other three with advanced emphysema or bronchiectasis revealed significant lowering of the arterial pO_2 on the day that the bronchography was performed. A return to the control value was noted within 1-2 days.

THE ROLE OF OXYGEN IN THE REGULATION OF ERYTHROPOIESIS. DEPRESSION OF THE RATE OF DELIVERY OF NEW RED CELLS TO THE BLOOD BY HIGH CONCENTRATIONS OF INSPIRED OXYGEN*

John C. Tinsley, Jr., M.D.

Department of Medicine

Observations are described which demonstrate a depression in the rate of delivery of new red cells to the circulating blood over periods of 8 to 14 days during which concentrations of oxygen within the range of 50 to 95 per cent were administered to patients with several types of anemia and also hematologically normal men.

1. In patients with sickle cell anemia and congenital hemolytic icterus a dramatic decrease in reticulocytes and red blood cells occurred during the oxygen-rich periods, followed by a remarkable reticulocytosis with return of the erythrocytes to control levels after the oxygen was stopped.
2. In patients with pernicious anemia in a relapse given specific therapy after oxygen was begun, not only was each reticulocyte response sub-

maximal during hyperoxia, but also after the oxygen was stopped a second well-defined and greater reticulocyte response occurred in each instance.

3. In hematologically normal subjects comparison was made of the rate at which intravenously injected radioiron was synthesized into hemoglobin, first during periods of 70 percent oxygen and then while they were breathing atmospheric air. The rate of iron-utilization was only about one-half as rapid during hyperoxia.

The relation of these results to the concept that oxygen tension is one of the physiologic regulators of erythropoiesis was briefly discussed.

* A full report on this work has been published in the *Journal of Clinical Investigation*, 1949.

PHYSIOLOGIC STUDIES IN CHILDREN AFTER PNEUMONECTOMY

Richard M. Peters, M.D., Albert Roos, M.D., Harrison Black, M.D., Thomas H. Burford, M.D., and Evarts A. Graham, M.D.

Department of Surgery

Pulmonary function studies, together with blood gas studies, were carried out on nine patients who underwent pneumonectomy by the Chest Service at Barnes Hospital nine months to 13 years previously. All the children are well and leading normal lives. None have any significant deformity. Two of the patients have done exceptionally well, one being a champion gymnast, the other a construction worker.

All blood oxygen saturation pH determinations and CO₂ contents were within normal limits before and after seven minutes of standard exercise. The pulse and respiration returned to normal values in all patients by the end of a ten-minute recovery period.

The lung volume studies and the readings of inspiratory and expiratory chest films were compared. The patients with widest range of motion of the mediastinum and diaphragm had the best function regardless of the degree of mediastinal limitation. All patients had greater lung volumes than would be expected for one normal lung. In the compensation, this was made up by vital capacity, while in the others it consisted of the residual volume. The age at operation or the side removed apparently did not affect the final result.

Patients who exercised most showed the best results, which indicates that physiotherapy might be more beneficial than thoracoplasty in such patients.

DETERMINATION OF TOTAL BODY SODIUM IN MAN WITH RADIOSODIUM²⁴

Gilbert B. Forbes, M.D., and Anne M. Perley, M.A.

Department of Pediatrics

Previous methods for determining the sodium content of the human body have been based, for the most part, on calculations from chemical analyses of various organs and an assumed ratio of these organs to the total mass of the body. Carcass analysis is obviously more accurate, yet reports of such analyses are available only for the fetus and newborn. Since knowledge of the sodium content of the body should be useful in estimating parenteral fluid

requirements, an attempt was made to determine it by the isotope dilution principle.

Intravenously administered radio-sodium quickly mixes with intravascular sodium and within two to three hours is in equilibrium (except for cerebrospinal fluid) with extravascular sodium. Equilibration with the sodium of brain and bone takes place more slowly but is believed to be complete in about eighteen hours. When equilibrium is

complete, serum specific activity should equal total body specific activity, and from knowledge of the former, total body sodium can be calculated:

$$\frac{\text{Na}^{24} \text{ injected} - \text{Na}^{24} \text{ excreted}}{\text{Serum Na}^{24} / \text{serum Na}^{23}} = \text{Total body Na}^{23}$$

Thirty determinations on twenty-seven healthy young men indicate that total body sodium has an average value of 41 meq. per kilogram; the values for four females averaged 36 meq. per kilogram. In a series of 17 children the

average values are 43 meq. per kilogram for the older children, 49 meq. per kilogram for large infants, and 82 meq. per kilogram for small infants. Results compare favorably with actual chemical analyses from the literature.

Papers Presented on January 11, 1950:

THE PATHOGENESIS OF DIASTOLIC HYPERTENSION

Peter Heinbecker, M.D.

Department of Surgery

Diastolic hypertension follows from overaction of a mechanism normally responsible for the maintenance of renal circulation and function.

The mechanism consists of the hypophysial eosinophile cells, the glomerular zone of the adrenal cortex and the renal tubule cells.

The secretion of the hypophysial eosinophile cells increases cardiac output and is trophic to the renal tubule cells which secrete renin. The secretion of the cells of the glomerular zone, desoxycorticosterone or a desoxycorticosterone-like substance, is essential for the action of the hypophysial eosinophile cell hormone and of renin, but its overaction is not. Renin when released from the renal tubule cells combines with a globulin designated hypertensinogen to form hypertensin which stimulates the heart and constricts the arterioles. The secretion of the glom-

erular zone of the adrenal cortex is not augmented in diastolic hypertension. Evidence of this is found in the fact that the hormone of the eosinophile cells of the adenohypophysis is not trophic to the glomerular zone of the adrenal cortex. This zone does not atrophy after hypophysectomy. The secretion of this zone will not maintain the normal maturation of the hypophysial eosinophile cells.

The mechanism is activated quickly by the sympathetic vasoconstrictor fibers to the renal blood vessels and by the secretory fibers to the adrenal medulla. Such action is not essential for the production of diastolic hypertension. It is activated more slowly but more effectively by factors which cause hypophysial eosinophile cell overaction and by constriction of the blood vessels to the kidney or a lessening of the amount of effective renal tubular tissue.

Excitation of the sympathetic vasoconstrictor mechanism and of the secretory fibers to the adrenal medulla is neurogenic in origin. There is no evidence to indicate that the sympathetic nervous system is overactive in diastolic hypertension. An excess secretion of the adrenal medulla found in tumors, the pheochromocytomata, may cause diastolic hypertension by direct action on the heart and on the arterioles.

Overaction of the hypophysial eosinophile cell occurs as a result of depression of the supraoptic and more particularly of the paraventricular hypothalamic nuclei as in certain cases of Cushing's syndrome due to paraventricular nuclear atrophy and in essential hypertension where the depression is first functional. Fibers from these nuclei control the secretion of the neural hypophysis. A decrease in the amount of or the effectiveness of this secretion augments eosinophile cell maturation with overaction. Factors which decrease the effectiveness of the neural hypophysial hormone and increase eosinophile activity are the secretion of the zona fasciculata of the adrenal cortex as in certain adrenal cortical tumors, renin as in primary renal disease, and coarctation of the aorta and progesterone as in Cushing's syndrome due to a tumor of the ovary and in pregnancy.

Renin released as a result of a decrease in renal circulation or in the amount of effective renal tubular tissue can produce diastolic hypertension with or without the hormone of the hypophysial eosinophile cells. Renin released when the amount of or the effectiveness of posterior lobe hormone is

lessened causes a necrosing arteriolitis and an increased permeability of the capillaries.

In man the circulation in those conditions where diastolic hypertension is established, simulates closely that produced in animals by the injection of activated renin. In established diastolic hypertensive states the arteriolar narrowing first is functional but later tends to become occlusive. The renal blood flow is gradually decreased from the normal as functional arteriolar narrowing is replaced progressively by occlusive narrowing. The quantity of plasma filtered at the glomerulus usually is relatively greater than the renal plasma flow because of the greater constriction of the efferent glomerular arterioles than of the afferent. The maximal tubular excretory capacity as measured by diodrast or para amino-hippuric acid excretion first may be normal or elevated but later becomes progressively decreased.

Arteriosclerosis is found constantly in persons exhibiting diastolic hypertension of long duration. Such sclerosis as well as increase of renin secretion is dependent in large measure upon the combined influences resulting from overaction of the hypophysial eosinophile cell-adrenal (zona fasciculata)-renin hormone factors. Significant also is the underaction of the hypophysial basophile cell-thyroid-ovarian follicle and seminiferous tubule cell hormone factors which occurs. One effect of the alteration in function of these two endocrine units is a degeneration of the connective tissues of the body while another is an increase in body lipids and

neutral fats. With the imbalance there occurs a release of calcium salts from the bones and their deposit in the degenerated connective tissues of the body, including the arteries. This process is facilitated by overaction of the parathyroid glands which results from a decrease in the hypophysial basophile cell function. The effectiveness of the secretion of the hypophysial basophile cells is lessened by any depression or neutralization of the hormone of the neural hypophysis. Vasoconstriction of itself is considered primarily to cause hypertrophy of the arteriolar musculature.

In the process of aging, the activity of the adrenal glands, the androgenic cells and the renal tubule cells to which

the hypophysial eosinophile cells are trophic is maintained while the activity of the thyroid gland, the ovarian follicles and the seminiferous tubule cells to which the hypophysial basophile cells are trophic, gradually decreases. Any decrease in function of the hypothalamic nuclei also facilitates the overbalanced action of the endocrine structures to which the hypophysial eosinophile cells are trophic. The activity of the thymus gland and the islets of Langerhaus, to which the secretion of the hypophysial eosinophile cells is inhibitory, appears progressively to decrease while the activity of the parathyroid glands, to which the secretion of the hypophysial basophile cells is inhibitory, gradually increases.

SCHROEDER'S SYNDROME: HYPERTENSION WITH AN ENDOCRINE COMPONENT*

Dean F. Davies, Ph.D., M.D.

Department of Medicine

In spite of many suggestions to the contrary, there has been no convincing evidence that the adrenal cortex plays an active role in essential hypertension.

In 1939 Schroeder, in a thorough analysis of 218 cases of hypertension, found ten cases falling in the "Endocrine Dysfunction" category who had some of the signs of Cushing's Syndrome. Clinical identification of this type was brought into focus early last year and their hypertension was discovered to respond favorably to a low salt diet. Other types received little or no benefit from such a diet.

Because of the similarities of these

cases to Cushing's Syndrome and the possibility of an abnormality of electrolyte balance, the activity of the salt-retaining factor(s) of the adrenal cortex was estimated by analysis of the sodium and chloride concentrations of sweat. Conn had demonstrated that chloride concentration in sweat from patients with Addison's Disease is invariably high (> 105 meq./l) whereas it low (< 13.5 meq./l) in Cushing's Syndrome.

* This paper covers work reported at the Fall Meeting, American Physiological Society, Augusta, Georgia, September, 1949.

Subjects were sweated in a room saturated with steam at 102° to 110° F. Results of sodium and chloride analyses of sweat samples collected from the back at 30 minutes were analyzed statistically for significant differences between groups.

Twenty-four women with Schroeder's Syndrome, selected by clinical appraisal of nine characteristics were found to have significantly lower (20.4 meq./l)

sweat sodium concentrations than a normal group (32.9 meq./l). Twenty-two other hypertensives were not significantly different from normal. This suggests hyperadrenocorticalism in a clinically distinct type of hypertension of unknown origin; whether it is the cause or effect of the elevated blood pressure is unknown. Other hypertensives have no increased salt-retention.

INHIBITORY EFFECT OF THIOCYANATE UPON OXIDATIONS MEDIATED BY LIVER AND KIDNEY

Norman S. Olsen, Ph.D.

Department of Medicine

Thiocyanate has been reported to inhibit the action of catalase and carbonic anhydrase and to act as a goitrogen and a hypotensive agent. Here, the effect of thiocyanate on the oxygen uptake of broken cell tissue preparations was studied. It was found that the type of inhibition produced by 10^{-3} M cyanide required a concentration of 10^{-1} M thiocyanate. However, much lower concentrations of thiocyanate (about 5×10^{-4} M) produced a 50% inhibition of added amino acid substrate (phenylalanine, tyrosine, leucine, tryptophane or histidine). When the amines corresponding to these amino acids were tests, this inhibitory action was not found.

Thiocyanate has been reported to lower the blood pressure in some patients with essential hypertension if a blood level of 1.7×10^{-3} M (10 mg.%) is maintained. The general toxic action of this drug has been shown to be separate from its inhibitory effect on amino acid oxidation. Aberrations

of amino acid and amine oxidation have been postulated as playing an important role in hypertension. Since the concentration of thiocyanate necessary to inhibit the oxidation of certain amino acids is one-fifth of that required to produce a therapeutic effect in hypertension, thiocyanate could possibly play a physiologic role in lowering blood pressure through the inhibition of amino acid oxidation.

Barnes Hospital Gets Approval for 3 New Residency Programs

Barnes Hospital received notice recently from the Council on Medical Education and Hospitals of the American Medical Association that three new residency programs have received official approval by the Council. The new courses are a three-year training in dermatology, and syphilology, a three-year training in urology, and a one-year residency in physical medicine.

EXPERIENCES WITH THORACOLUMBAR SYMPATHECTOMY IN TREATMENT OF HYPERTENSION

George E. Roulhac, M.D., and Henry G. Schwartz, M.D.

*Department of Surgery
Division of Neurological Surgery*

Thoracolumbar sympathectomy was performed on 44 cases of hypertension in whom a thorough trial of medical therapy had failed to halt the progression of benign hypertension into its malignant phase. The sympathetic chain from above the highest branch of the splanchnic nerve to below the 2nd lumbar ganglia together with the splanchnic nerves were removed in 43 cases. One patient had a bilateral supra-diaphragmatic operation in one stage. The operative mortality was zero. Average period of hospitalization was 35 days.

The blood pressure responses in 43 patients followed 6-33 months were reviewed and classified as "good," "fair" and "poor." 12 patients (27.9%) had

pressures consistently below 150 mm. systolic and 100mm. diastolic, and were classified as "good." A similar number were placed in the "fair" group, while 44.2% continued to have elevated blood pressure. Eighty per cent of all patients had complete or almost complete relief of symptoms and were able to return to their former occupations. There was only one death 10 months after operation.

The authors, therefore, conclude that while sympathectomy is not the final answer to hypertension, it does offer a reasonable chance of decreasing the blood pressure; an excellent chance of relieving symptoms and of increasing the life span.

BCG Tuberculosis Vaccine Given to First-Year Students

BCG vaccination for increased immunity to tuberculosis has been administered for the first time to freshman medical students at Washington University. The vaccine was obtained from Dr. S. R. Rosenthal, director of the Tice Research Laboratory of Chicago, Illinois.

With the guidance and advice of Dr. Dorothy Jones of the Department of Pediatrics, the Student Health Service announced to the first-year class that those students with tuberculin negative tests could receive the vaccine if they desired. Of the 67 who had negative tuberculin patch tests, 43 expressed an

interest in receiving BCG. Further testing with second-strength PPD proved 35 of the 43 eligible to receive BCG.

These 35 students were vaccinated on January 24 and 25 by Dr. Albert I. Mendeloff, physician to students in the Medical Center, and Dr. Jones. Six weeks from that time the vaccinated students will receive tuberculin patch tests for evidence of a positive reaction development. The positive tuberculin resulting from this vaccination usually lasts about five years, thus covering the period during which medical students receive the greatest exposure to tuberculosis.

Alumni Reunion and Clinical Meeting

MAY 5 and 6, 1950

If you attended last year's highly successful alumni reunion, the picture below will look very familiar, for it was taken during one of the talks given as part of the clinical program. Perhaps you are among those in the attentive audience, and in any case you will probably recognize someone among the alumni, staff members, or students pictured here.

The clinical reunion for 1950 has been set for Friday and Saturday, May 5 and 6, and will be of the same high caliber as last year's — in fact, advance plans indicate that it will probably surpass the 1949 program.

High point of the meeting will be the annual Alumni Dinner in the Gold Room of the Hotel Jefferson on Friday evening, May 5, starting at 6:30 p. m.

The clinical program will start at 9 a. m. on Friday and continue all day until 5 p. m. On Saturday, it will run from 9 a. m. until noon. Various departments in the Medical School will present the scientific program, aided by illustrious alumni from other parts of the country, as well as those in St. Louis.

The officers and executive committee want to see you in the 1950 alumni reunion picture, helping to surpass the 475 record attendance set in 1949. So circle May 5 and 6 on your calendar, and *plan now to attend the 1950 Alumni Clinical Reunion!*



Portrait of Dr. Sherwood Moore Given to University

An oil portrait of Dr. Sherwood Moore, '05, professor emeritus of radiology and former director of the Mallinckrodt Institute of Radiology, was presented to Washington University by staff members, former residents and associates of his on December 2. Dr. Joseph W. Larimore, '13, associate professor of clinical medicine, made the presentation on behalf of the donors. The short ceremony was held at 5:30 p. m. in the Walter Mills Room of the Mallinckrodt Institute, where the portrait has been permanently installed. Mr. Charles Belknap, vice-chancellor, accepted the painting for the University.

Dr. Larimore cited Dr. Moore's long association with the University, both as student and staff member, and his leadership in bringing the Mallinckrodt Institute to the outstanding position which it occupies today. The development of a new field of occupation for blind persons in x-ray darkroom work under Dr. Moore was pointed out, as were his contributions in radiological research also.

Among those attending the ceremony were Dr. Robert A. Moore, Dean of the Medical School; Dr. Hugh M. Wilson, '27, who succeeded Dr. Sherwood Moore as professor of radiology and director of the Institute of Radiology; members of the executive faculty and staff members of the Department of Radiology, and former house officers and associates of Dr. Moore. Many of the latter were from out of town, some traveling from distant states for the occasion.



At presentation ceremony of the portrait, from left to right: Dr. Robert A. Moore; Mr. Charles Belknap (behind Dr. Moore); Dr. Joseph W. Larimore '31; Dr. Hugh M. Wilson '27; and Dr. Sherwood Moore '05.

Immediately following the presentation of the portrait, 193 persons gathered at the Starlight Roof of the Chase Hotel for a special dinner in honor of Dr. Moore. Dr. Edward Jenkinson, chief radiologist at St. Luke's Hospital in Chicago, was guest speaker. Dr. Evarts A. Graham, professor of surgery, was toastmaster. Speaking also were Dr. Wilson and Mr. Edward Mallinckrodt, donor of the Institute of Radiology.

Out-of-town guests attending the dinner in honor of Dr. Moore were: former residents: *E. G. Anderson '28*, Rockford, Ill.; *Kirk Deibert*, Nashville, Tenn.; *Louis H. Hempelman, Jr., '38*, Boston, Mass.; *James Little*, Flint, Mich.; *Stuart Lippert*, Jacksonville, Ill.; *L. A. Malone '28*, Terre Haute,

Ind.; Joseph A. Norton, Eldorado, Ark.; *Allan B. Phillips* '35, Des Moines, Ia.; *James A. Read* '43, Detroit, Mich.; *Thomas Russell*, '37, Houston, Tex.; and *William Stanbro* '38, Washington, D. C.

Friends and former associates were: Raymond C. Beeler, Indianapolis, Ind.; *E. J. Bribach* '05, Atchinson, Kans.; Barney Brooks, Nashville, Tenn.; *Eric A. Cunningham* '26, Louisiana, Mo.; Herbert Francis, Nashville, Tenn.; *Burford G. Hamilton* '05, Richmond, Mo.; Charles H. Heacock, Memphis, Tenn.; *Abraham E. Hiebert* '25, Wichita, Kans.; Edward L. Jenkinson, Chicago, Ill.; *Howard P. Joslyn* '43, Taylorville, Ill.; E. R. Kirklín, Rochester, Minn.; Randolph N. Long, Selma, Ala.; *J. B. McCubbin* '07, Fulton, Mo.; John J. Modlin, Columbia, Mo.; H. W. Morgan, Mason City, Ia.; Marvin L. Napper, Springfield, Mo.; Eugene P. Pendergrass, Philadelphia, Pa.; *Edwin H. Terrell*, '18, Wichita, Kans.; and *George B. Tribble* '06, Washington, D. C.

Graduate Course in Urology Given Here during January

A graduate course in urology was given under the auspices of Washington and St. Louis Universities from January 3 through 7. It was under the direction of the South Central Section of the American Urological Association, with Washington University presenting the pathology section and St. Louis University, the anatomy.

Staff members who participated were Drs. Robert A. Moore, Lauren V. Ackerman, John B. Frerichs, Justine J. Cordonnier '28, John F. Patton '28, and

Golden Anniversary of Medical School to Be Celebrated February 21

Plans for the special 50th Anniversary Program on February 21 to commemorate the founding of the School of Medicine have been completed and names of the guest speakers announced.

Opening the program will be the laying of the cornerstone for the new \$900,000 Cancer Research Building in the Medical Center, at 2:00 p. m. that afternoon. Immediately following will be a scientific program in the auditorium of the School of Medicine, with these prominent speakers: Dr. Ernest Goodpasture, professor of pathology and dean of the Vanderbilt University School of Medicine in Nashville; Dr. Charles Huggins, professor of surgery at the University of Chicago School of Medicine; and Dr. Edwards Park, emeritus professor of pediatrics at Johns Hopkins University School of Medicine in Baltimore.

Dr. Alan Gregg, director of the Division of Medical Sciences of the Rockefeller Foundation in New York City, will be the special speaker for the 50th Anniversary Dinner, which will start at 7:30 that evening on the Starlight Roof of the Hotel Chase.

Dr. Leonard Scheele, surgeon-general of the United States Public Health Service, and Dr. Roderick Heller, director of the National Cancer Institute, have accepted invitations to be guests for the occasion.

Rogers Deakin '22. On the local committee were Drs. Dalton K. Rose '15, Carl Wattenberg, Deakin and Patton.

Report on Dormitory Center Campaign

Since the last issue of the Washington University Medical Alumni Quarterly, there has been a gratifying increase in the number of alumni who have contributed to the Student Dormitory Center Fund.

The total amount pledged has increased from \$33,281.00 to \$41,525.10. Of this total, \$25,483.08 has been paid in, and the remainder is to be paid in 1950 and 1951.

Of the 3,335 living graduates of the Medical School, 312 have sent in contributions or pledges, an increase of 90 from the 222 contributors listed in the last report. Seven contributions have been received from St. Louis doctors who are not W. U. graduates.

There are still 3,023 living alumni to be heard from. The average pledge or contribution thus far, including many small pledges from graduates who are still internes or residents, is \$133.09. This average has been maintained by virtue of many pledges of \$300 and \$500 or more from the actively-practicing graduates. One fine alumnus sent in a pledge for \$1500.

If this average contribution can be obtained from the remaining 3,023 alumni, a Dormitory Center can be built of which we all will be proud. For each one who fails to contribute,

there will have to be a little skimping here or there. It is hoped that each contributor will appoint himself as a committee of one to get after his school-mates, so that no skimping will be necessary.

An alumnus has suggested that a permanent plaque be placed on the wall of the entrance hall of the Dormitory Center listing the names of all alumni who have contributed \$100 or more to the fund. I would like to have opinions from the alumni as to whether they would favor this idea, or a larger plaque listing all contributors, regardless of the amount given. I am personally in favor of the latter idea, although I expect the list to be very long.

The following lists show those who have already made contributions or pledges. The lists are arranged in two ways: first, by classes; and second, by geographical trade areas. The names of the chairmen for each area have been omitted from the second list for the sake of simplicity.

The Alumni Council, the University and the students are grateful to these contributors. Those who have not already given are urged to do so as soon as possible.

Samuel B. Grant
Chairman

Medical Student Dormitory Fund Contributors from Each Class

1948—Living Graduates, 90

Juro J. Shintani, Perry Point, Md.

1947—Living Graduates, 96

Charles G. Clay, Rantoul, Ill.

Helen Hofsommer Glaser, St. Louis

Burnet W. Peden, St. Louis

Virginia H. Peden, St. Louis

1946—Living Graduates, 91

- James W. Owen, Jr., Guam, M. I.
 Frank Vellios, St. Louis
 Leonard J. Wiedershine, Aurora, Colo.
- 1945—Living Graduates, 97
 John T. Johnstone, Jr., St. Louis
 Ceylon S. Lewis, Jr., Salt Lake City
 Roscoe Maxwell, Punta Gorda, Fla.
 Eugene E. Taylor, Mocksville, N. C.
- 1944—Living Graduates, 99
 Rowe F. Bisbee, Ada, Okla.
 Clayton H. Manry, Syracuse, N. Y.
 David E. Smith, St. Louis
- 1943 (Dec.)—Living Graduates, 112
 John F. Blinn, Jr., Stockton, Calif.
 Terrell Covington, Jr., McKinney, Tex.
 Mary Jordan, Ridley Park, Pa.
 Edward H. Kowert, St. Louis
 Elaine K. Lince, Pasadena, Calif.
 Herbert C. Wiegand, St. Louis
- 1943 (March)—Living Graduates, 95
 Grace E. Bergner, St. Louis
 Raymond M. Charnas, St. Louis
 Harlan I. Firminger, Bethesda, Md.
 Melvin L. Goldman, St. Louis
 Ira W. Liebner, Brooklyn, N. Y.
 Eichi Masunaga, T. H.
 Roberts B. Pappenfort, New York, N. Y.
 Ernest S. Rogers, San Francisco, Calif.
 Carvel T. Shaw, Hermann, Mo.
 David A. Stadtner, Stockton, Calif.
- 1942—Living Graduates, 93
 William G. Reese, Perry Point, Md.
 Herman Rice, Temple, Tex.
 George L. Watkins, Farmington, Mo.
- 1941—Living Graduates, 93
 Robert J. Cook, St. Louis
 Peter O. Fleming, Topeka, Kan.
 Anne T. Goetsch, Berkeley, Calif.
 Samuel W. Gollub, St. Louis
 Geo. Bruce Lemmon, Springfield, Mo.
 Harold E. McCann, E. St. Louis, Ill.
 C. A. Nielsen, Seattle, Wash.
 Joseph W. Noah, St. Louis
 Carol H. Rehm, Los Angeles, Calif.
 William L. Topp, Seattle, Wash.
- 1940—Living Graduates, 90
 Donald S. Bottom, Alton, Ill.
 Seymour Brown, St. Louis
 Russell J. Crider, St. Charles, Mo.
- Roland R. Cross, Hines, Ill.
 L. R. Fernandez, Laupahoe, T. H.
 James M. Foerster, Wausau, Wis.
 Otto H. Grunow, St. Louis
 Robert E. Koch, St. Louis
 Gordon F. Moore, Alton, Ill.
 Willard R. Rowland, Portland, Ore.
 Llewellyn Sale, Jr., St. Louis
 Robert M. Smith, St. Louis
- 1939—Living Graduates, 96
 Alfred K. Baur, St. Louis
 Heinz E. Cron, San Francisco, Calif.
 Benjamin Milder, St. Louis
 Edward H. Reinhard, St. Louis
 Minton D. Ritter, Margate City, N. J.
 Gerald A. Slusser, Silver City, N. Mex.
- 1938—Living Graduates, 93
 Lawrence M. Kotner, St. Louis
 Anthony Piraino, Oberlin, Ohio
 Philip Rosenblatt, New York, N. Y.
 Roy W. Thomas, Redding, Calif.
- 1937—Living Graduates, 93
 Samuel Brady, Gary, Ind.
 G. L. Calvy, Cleveland, Ohio
 Martin A. Compton, Richmond, Va.
 John R. Connell, Denver, Colo.
 J. A. Fiorito, New Haven, Conn.
 William H. Gray, Yakima, Wash.
 Carl E. Lischer, St. Louis
 Edgar H. Little, New Orleans, La.
 Elizabeth Lowenhaupt, San Francisco
 Charles M. Polan, Huntington, W. Va.
 Henry N. Reid, Rome, N. Y.
 Lloyd Rosenbaum, Anderson, Ind.
 H. L. Townsend, Louisville, Ky.
 Marie H. Wittler, Wheaton, Ill.
- 1936—Living Graduates, 96
 James H. Bryan, St. Louis
 F. R. Crouch, Farmington, Mo.
 Norman W. Drey, St. Louis
 Stephen Ellis, Coffeyville, Kans.
 Nathan R. Kahn, Brooklyn, N. Y.
 Frank McDowell, St. Louis
 James D. Morrison, Billings, Mont.
 R. A. Nussbaum, St. Louis
 Samuel Schneider, St. Louis
 Warren B. West, Ogden, Utah
- 1935—Living Graduates, 89
 I. J. F lance, St. Louis

- Alfred W. Harris, Dallas, Tex.
 A. Herman Hutto, St. Louis
 Bruce Kenamore, St. Louis
 Edward Massie, St. Louis
 Sidney Messer, Venice, Calif.
 Clark G. Porter, Three Rivers, Mich.
 Laurence G. Pray, Fargo, N. D.
 David Rothman, St. Louis
 Bernard Schwartzman, St. Louis
 Ben H. Senturia, St. Louis
 A. J. Steiner, St. Louis
 Irvin Weisman, Granite City, Ill.
- 1934—Living Graduates, 88
 Helen M. Aff, St. Louis
 James M. Baker, Columbia, Mo.
 Eugene M. Bricker, St. Louis
 T. C. Campbell, New Orleans, La.
 David Friedman, Granite City, Ill.
 Paul O. Hagemann, St. Louis
 Stanley Hampton, St. Louis
 Louis G. Jekel, Phoenix, Ariz.
 Dorothy J. Jones, St. Louis
 Morris D. Marcus, St. Louis
 H. D. Rosenbaum, St. Louis
 John A. Saxton, St. Louis
 Edna Schrick, Holland, Mich.
- 1933—Living Graduates, 88
 Henry C. Allen, St. Louis
 James W. Bagby, St. Louis
 Russell J. Blattner, Houston, Tex.
 Cecil M. Charles, St. Louis
 C. A. Good, Rochester, Minn.
 Carl G. Harford, St. Louis
 John R. Haslem, Terre Haute, Ind.
 W. W. Herman, Cleveland, Ohio
 Joseph C. Jaudon, St. Louis
 F. Craig Johnson, Denver, Colo.
 A. A. Loverde, Chicago, Ill.
 Alvin R. Miller, Seattle, Wash.
 Lyman K. Richardson, New Orleans, La.
 Richard Y. Sakimoto, Honolulu, T. H.
 Oreon K. Timm, Danville, Ill.
 Wirt A. Warren, Wichita, Kans.
 Lawrence M. Wilson, Olympia, Wash.
- 1932—Living Graduates, 84
 Sim F. Beam, St. Louis
 Brian B. Blades, Washington, D. C.
 Louis T. Byars, St. Louis
 B. S. Clark, Spearfish, S. D.
- William Ehrlich, Newark, N. J.
 Leo Gottlieb, St. Louis
 Kiyoshi Inouye, Honolulu, T. H.
 William H. Meinberg, St. Louis
 Carl V. Moore, St. Louis
 Paul B. Nutter, Spokane, Wash.
 Sydney S. Pearl, Elizabeth, N. J.
 C. O'Neil Rich, Salt Lake City, Utah
 Wendell G. Scott, St. Louis
 Barrett L. Taussig, St. Louis
 Sam R. Wallis, Kauai, T. H.
 Helman C. Wasserman, St. Louis
- 1931—Living Graduates, 73
 Delevan Calkins, St. Louis
 Joseph Cieri, Piedmont, Calif.
 A. W. Hankwitz, Milwaukee, Wis.
 W. E. Keiter, Kinston, N. Car.
 Mary Louise Newman, Jacksonville, Ill.
 Robert F. Monroe, Louisville, Ky.
 John A. Schindler, Monroe, Wis.
- 1930—Living Graduates, 74
 M. A. Diehr, St. Louis
 Donald E. Eggleston, Macon, Mo.
 Herbert H. Gass, India
 Joseph J. Gitt, St. Louis
 Alfred H. Hathcock, Fayetteville, Ark.
 I. D. Newmark, Chester, Ill.
- 1929—Living Graduates, 72
 A. W. Freshman, Denver, Colo.
 Guerdan Hardy, St. Louis
 Craig B. Johnston, Philadelphia, Pa.
 Louis Kovitz, Kansas City, Mo.
 Sidney Pakula, Kansas City, Mo.
 Frank B. Queen, Portland, Ore.
 Jay Marvin Salzman, Springfield, Ill.
 A. Ford Wolf, Temple, Tex.
- 1928—Living Graduates, 63
 A. N. Arneson, St. Louis
 Edward Burns, Toledo, Ohio
 Justin J. Cordonnier, St. Louis
 H. R. Hildreth, St. Louis
 J. Ted Jean, St. Louis
 R. D. Kepner, Honolulu, T. H.
 Guy N. Magness, St. Louis
 L. A. Malone, Terre Haute, Ind.
 John F. Patton, St. Louis
 A. Victor Reese, St. Louis
 Paul R. Rollins, Seattle, Wash.
 Verne Ross, Stockton, Calif.

W. A. Ruch, Memphis, Tenn.

David M. Skilling, St. Louis

S. D. Soule, St. Louis

A. Lloyd Stockwell, Kansas City, Mo.

Jacob Stolar, St. Louis

Vincent T. Williams, Kansas City, Mo.

1927—Living Graduates, 72

A. C. Fortney, Fargo, N. D.

Alfred G. Henrich, Los Angeles, Calif.

W. R. Merrell, Brigham City, Utah

Kazuo Miyamoto, Honolulu, T. H.

Eugene O. Parsons, Kansas City, Mo.

Willard C. Schwartz, Manhattan, Kan.

Abigail E. Smith, Lexington, Mass.

Frances H. Stewart, St. Louis

Richard T. Taylor, Los Angeles, Calif.

Louis L. Tureen, St. Louis

W. B. Wilcoxon, Bowling Green, Mo.

1926—Living Graduates, 73

Reno A. Ahlvin, Kankakee, Ill.

James L. Benepe, St. Paul, Minn.

H. M. Chandler, Waipahu, T. H.

Eric A. Cunningham, Louisiana, Mo.

Max Deutch, St. Louis

William B. Kountz, St. Louis

G. Wendell Olson, Fullerton, Calif.

Henry A. Romberg, Oshkosh, Wis.

J. C. Schmidtke, Elgin, Ill.

E. H. Theis, Granite City, Ill.

1925—Living Graduates, 69

George P. Bailey, Lakewood, Colo.

Robert J. Crossen, St. Louis

H. M. Denny, Union, Mo.

James J. Donohue, E. St. Louis, Ill.

B. Y. Glassberg, St. Louis

Richard K. Kimmel, St. Louis

Joseph Magidson, St. Louis

Carl H. Matthey, Davenport, Iowa

Sam J. Roberts, Miami, Fla.

Melvin A. Roblee, St. Louis

Roland A. Slater, Peoria, Ill.

Gershom J. Thompson, Rochester, Minn.

1924—Living Graduates, 69

Alfred O. Adams, Spokane, Wash.

Roy F. Baskett, Texarkana, Tex.

Charles Drabkin, Los Angeles, Calif.

William B. Gnagi, Monroe, Wis.

Louis H. Jorstad, St. Louis

Elizabeth E. Koppenaar, Elmhurst, Ill.

O. Earl Whitsell, St. Joseph, Mo.

J. William Beckmann, New York, N. Y.

1923—Living Graduates, 50

Oliver Abel, Jr., St. Louis

William G. Becke, St. Louis

William L. Bradford, Rochester, N. Y.

James Barrett Brown, St. Louis

George V. Feist, Kansas City, Mo.

Charles Teel, Bellingham, Wash.

J. Wm. Thompson, St. Louis

Clair O. Vingom, Madison, Wis.

1922—Living Graduates, 44

Calvin Clay, St. Charles, Mo.

James B. Costen, St. Louis

F. E. Sultzman, Hannibal, Mo.

1921—Living Graduates, 43

Lester J. Evans, Jackson Heights, N. Y.

Oscar C. Zink, St. Louis

1920—Living Graduates, 39

Robert L. Andrae, Louisiana, Mo.

Clifton H. Briggs, Pasadena, Calif.

Warren H. Cole, Chicago, Ill.

Alfred Goldman, St. Louis

Samuel B. Grant, St. Louis

Guy H. Hopkins, Pueblo, Colo.

William A. Hudson, Detroit, Mich.

Frederick E. Jostes, St. Louis

P. H. Kennedy, Hubbard, Ohio

Herman M. Meyer, St. Louis

L. J. Owen, Lincoln, Neb.

H. W. Wellmerling, Bloomington, Ill.

Harvey Lester White, St. Louis

1919—Living Graduates, 45

Duff S. Allen, St. Louis

Howard H. Heuston, Boulder, Colo.

Carl O. Kohlbry, Duluth, Minn.

E. H. Munro, Grand Junction, Colo.

Howard A. Plank, New York, N. Y.

A. B. Raffl, Syracuse, N. Y.

R. P. Roantree, Elko, Nev.

1918—Living Graduates, 26

Glover H. Copher, St. Louis

Wilbur G. Gillett, Wichita, Kan.

Elmer N. Liljedahl, Hollywood, Calif.

O. Sundwall, Murray, Utah

J. F. Pessel, Trenton, N. J.

1917—Living Graduates, 25

Archie A. Skemp, La Crosse, Wis.

J. E. Wattenberg, Cortland, N. Y.

- 1916—Living Graduates, 13
Earl C. Sage, Omaha, Neb.
Ray T. Woolsey, Salt Lake City, Utah
- 1915—Living Graduates, 22
D. K. Rose, St. Louis
- 1914—Living Graduates, 8
- 1913—Living Graduates, 21
F. O. Kettelkamp, Colorado Springs, Col.
- 1912—Living Graduates, 30
Edwin C. Ernst, St. Louis
George S. Gilpin, Cleveland, Ohio
Wells C. Reid, Goodrich, Mich.
George L. Watkins, Farmington, Mo.
- 1911—Living Graduates, 22
Charles H. Hecker, Palo Alto, Calif.
- 1910—Living Graduates, 40
Stanley S. Burns, St. Louis
Frederic Hagler, Springfield, Mass.
John P. Keim, St. Louis
Peter G. Moskop, St. Louis
Claude D. Pickrell, St. Louis
Frederick O. Schwartz, St. Louis
- 1909—Living Graduates, 30
Carey B. Elliott, Raton, N. Mex.
W. N. Pugh, Salt Lake City, Utah
- 1908—Living Graduates, 31
W. A. Olds, Colville, Wash.
- 1907—Living Graduates, 28
C. C. Nash, Dallas, Tex.
Llewellyn Sale, St. Louis
- 1906—Living Graduates, 35
S. P. Martin, East Prairie, Mo.
S. B. McPheeters, Goldsboro, N. C.
William H. Smith, Colfax, Calif.
- 1905—Living Graduates, 12
Jerome E. Cook, St. Louis
Walter Fischel, St. Louis
J. M. James, Henning, Ill.
- 1904—Living Graduates, 35
N. M. Freund, St. Louis
- 1903—Living Graduates, 22
A. H. Myerdick, Mt. Pleasant, Ia.
Clive D. Scott, Louisiana, Mo.
- 1902—Living Graduates, 22
- 1901—Living Graduates, 20
Walter C. G. Kirchner, St. Louis
- 1900—Living Graduates, 2
- 1899—Living Graduates, 42
R. O. Raymond, Flagstaff, Ariz.
Selden Spencer, St. Louis
- 1898—Living Graduates, 31
J. G. W. Fischer, Alma, Mo.
R. B. H. Gradwohl, St. Louis
John Q. Roane, Carlyle, Ill.
- 1897—Living Graduates, 34
Theodore Greiner, St. Louis
Frederick E. Woodruff, St. Louis
- 1896—Living Graduates, 30
- 1895—Living Graduates, 27
H. A. Geitz, Monterrey, N. L., Mexico
Robert J. Terry, St. Louis
- 1894—Living Graduates, 15
- 1893—Living Graduates, 17
Andrew Darling, St. Louis
R. Clarence Stephens, Plymouth, Ind.
- 1892—Living Graduates, 4
- 1891—Living Graduates, 21
- 1890—Living Graduates, 6
- 1889—Living Graduates, 13
- 1888—Living Graduates, 15
- 1887—Living Graduates, 6
- 1886—Living Graduates, 4
- 1885—Living Graduates, 8
- 1884—Living Graduates, 8
- 1883—Living Graduates, 12
- 1882—Living Graduates, 2
- 1881—Living Graduates, 2
James A. Dickson, St. Louis
Willis Hall, St. Louis
- 1880—Living Graduates, 2
- 1879—Living Graduates, 5

OTHER DONORS

- Dr. Robert W. Bartlett, St. Louis
Dr. Leon Bromberg, St. Louis
Dr. Benjamin H. Charles, St. Louis
Dr. Joseph C. Edwards, St. Louis
Dr. Robert J. Glaser, St. Louis
Dr. Joseph C. Peden, Sr., St. Louis
Dr. Lawrence T. Post, Sr., St. Louis

Contributors According to Trade Areas

<i>Trading Area Center</i>	<i>No. of Graduates in Trading Area</i>	<i>Trading Area Center</i>	<i>No. of Graduates in Trading Area</i>
Albany (N. Y.).....	3	Dallas (Tex.)	47
Albuquerque (N. Mex.).....	5	Terrell Covington, Jr., McKinney, Tex.	
Carey B. Elliott, Raton, N. Mex.		Alfred W. Harris, Dallas	
Amarillo (Tex.)	5	C. C. Nash, Dallas	
Atlanta (Ga.)	9	Herman Rice, Temple, Tex.	
Baltimore (Md.)	14	A. Ford Wolf, Temple, Tex.	
William G. Reese, Perry Point, Md.		Denver (Colo.)	58
Juro J. Shintani, Perry Point, Md.		George P. Bailey, Lakewood, Colo.	
Birmingham (Ala.)	32	John R. Connell, Denver	
Bismarck (N. D.)	1	A. W. Freshman, Denver	
Boston (Mass.)	26	Howard Heuston, Boulder, Colo.	
Frederick Hagler, Springfield, Mass.		Guy H. Hopkins, Pueblo, Colo.	
Abigail E. Smith, Lexington, Mass.		F. Craig Johnson, Denver	
Buffalo (N. Y.)	10	F. O. Kettelkamp, Colorado Springs	
William L. Bradford, Rochester, N. Y.		E. H. Munro, Grand Junction, Colo.	
Butte (Mont.)	4	Leonard J. Wiedershine, Aurora, Col.	
Charlotte (N. Car.)	21	Des Moines (Ia.)	30
Eugene E. Taylor, Mocksville, N. C.		A. H. Myerdick, Mt. Pleasant, Ia.	
Chicago (Ill.)	94	Detroit (Mich.)	33
Reno A. Ahlvin, Kankakee, Ill.		William A. Hudson, Detroit	
Samuel Brady, Gary, Ind.		Wells C. Reid, Goodrich, Mich.	
Charles G. Clay, Rantoul, Ill.		Duluth (Minn.)	
Warren H. Cole, Chicago		C. O. Kohlbry, Duluth	
Roland R. Cross, Hines, Ill.		El Paso (Tex.)	5
William B. Gnagi, Monroe, Wis.		Gerald A. Slusser, Silver City, N. Mex.	
J. M. James, Henning, Ill.		Evansville, (Ind.)	22
Elizabeth Koppenaar, Elmhurst, Ill.		Fargo (N.D.)	7
A. A. Loverde, Chicago		A. C. Fortney, Fargo	
Carl H. Matthey, Davenport, Ia.		Laurence G. Pray, Fargo	
John A. Schindler, Monroe, Wis.		Grand Rapids (Mich.)	10
J. C. Schmidtke, Elgin, Ill.		Clark G. Porter, Three Rivers, Mich.	
Roland A. Slater, Peoria, Ill.		Edna Schrick, Holland, Mich.	
R. Clarence Stephens, Plymouth, Ind.		Great Falls (Mont.)	8
Oreon K. Timm, Danville, Ill.		James D. Morrison, Billings, Mont.	
H. W. Wellmerling, Bloomington, Ill.		Houston (Tex.)	18
Marie H. Wittler, Wheaton, Ill.		Russell J. Blattner, Houston	
Cincinnati (O.)	16	Indianapolis (Ind.)	18
Charles M. Polan, Huntington, W. Va.		John R. Haslem, Terre Haute, Ind.	
Cleveland (O.)	22	L. A. Malone, Terre Haute, Ind.	
G. L. Calvy, Cleveland		Lloyd Rosenbaum, Anderson, Ind.	
George S. Gilpin, Cleveland		Jacksonville (Fla.)	2
W. W. Herman, Cleveland		Kansas City (Mo.)	190
P. H. Kennedy, Hubbard, O.		Stephen Ellis, Coffeyville, Kan.	
Anthony Piraino, Oberlin, O.		George V. Feist, Kansas City, Mo.	
Columbus (O.)	11	J. G. W. Fischer, Alma, Mo.	

<i>Trading Area Center</i>	<i>No. of Graduates in Trading Area</i>	<i>Trading Area Center</i>	<i>No. of Graduates in Trading Area</i>
Peter O. Fleming, Topeka, Kan.		Lester J. Evans, Jackson Heights, N. Y.	
Louis Kovitz, Kansas City, Mo.		Joseph A. Fiorito, New Haven, Conn.	
Sidney Pakula, Kansas City, Mo.		Nathan R. Kahn, Brooklyn, N. Y.	
Eugene O. Parsons, Kansas City, Mo.		Roberts B. Pappenfort, New York	
Willard C. Schwartz, Manhattan, Kan.		Sydney S. Pearl, Elizabeth, N. J.	
A. Lloyd Stockwell, Kansas City, Mo.		J. F. Pessel, Trenton, N. Y.	
O. Earl Whitsell, St. Joseph, Mo.		Howard A. Plank, New York, N. Y.	
Vincent T. Williams, Kansas City, Mo.		Minton D. Ritter, Margate City, N. J.	
Knoxville (Tenn.)	4	Philip Rosenblatt, New York, N. Y.	
Little Rock (Ark.)	22	Oklahoma City (Okla.)	22
Roy F. Baskett, Texarkana, Tex.		Rowe F. Bisbee, Ada, Okla.	
Los Angeles (Calif.)	125	Omaha (Neb.)	15
Clifton H. Briggs, Pasadena, Calif.		L. J. Owen, Lincoln, Neb.	
Charles Drabkin, Los Angeles		Earl C. Sage, Omaha	
Alfred G. Henrich, Los Angeles		Philadelphia (Pa.)	20
Elmer N. Liljedahl, Hollywood, Calif.		Craig B. Johnson, Philadelphia	
Elaine K. Lince, Pasadena, Calif.		Mary Jordan, Ridley Park, Pa.	
Sidney Messer, Venice, Calif.		Phoenix (Ariz.)	14
G. Wendell Olson, Fullerton, Calif.		Louis G. Jekel, Phoenix	
Carol H. Rehm, Los Angeles		R. O. Raymond, Flagstaff, Ariz.	
Richard T. Taylor, Los Angeles		Pittsburgh (Pa.)	10
Louisville (Ky.)	4	Portland (Me.)	1
Robert F. Monroe, Louisville		Portland (Ore.)	30
H. L. Townsend, Louisville		Frank B. Queen, Portland	
Memphis (Tenn.)	15	Willard D. Rowland, Portland	
W. A. Ruch, Memphis		Richmond (Va.)	16
Miami (Fla.)	5	Martin A. Compton, Richmond	
Samuel J. Roberts, Miami		W. E. Keiter, Kingston, N. C.	
Milwaukee (Wis.)	35	S. B. McPheeters, Goldsboro, N. C.	
James M. Foerster, Wausau, Wis.		Salt Lake City (Utah)	51
A. W. Hankwitz, Milwaukee		Ceylon S. Lewis, Jr., Salt Lake City	
Henry A. Romberg, Oshkosh, Wis.		W. N. Pugh, Salt Lake City	
Clair O. Vingom, Madison, Wis.		C. O'Neil Rich, Salt Lake City	
Minneapolis-St. Paul (Minn.)	26	R. P. Roantree, Elko, Nev.	
James L. Benepe, St. Paul		O. Sundwall, Murray, Utah	
C. A. Good, Rochester, Minn.		Warren B. West, Ogden, Utah	
Archie D. Skemp, La Crosse, Wis.		Ray T. Woolsey, Salt Lake City	
Gershom J. Thompson, Rochester, Minn.		San Antonio (Tex.)	17
Nashville (Tenn.)	8	San Francisco (Calif.)	86
New Orleans (La.)	20	John F. Blinn, Jr., Stockton, Calif.	
T. C. Campbell, New Orleans		Joseph Cieri, Piedmont, Calif.	
Edgar H. Little, New Orleans		Heinz E. Cron, San Francisco	
Lyman K. Richardson, New Orleans		Anne T. Goetsch, Berkeley, Calif.	
New York City	94	Charles H. Hecker, Palo Alto, Calif.	
J. William Beckmann, New York		Elizabeth Lowenhaupt, San Francisco	
William Ehrlich, Newark, N. J.		Ernest S. Rogers, San Francisco	

<i>Trading Area Center</i>	<i>No. of Graduates in Trading Area</i>	<i>Trading Area Center</i>	<i>No. of Graduates in Trading Area</i>
Verne R. Ross, Stockton, Calif.		Raymond M. Charnas	
William H. Smith, Colfax, Calif.		Calvin Clay, St. Charles, Mo.	
David A. Stadner, Stockton, Calif.		Jerome E. Cook	
Roy W. Thomas, Redding, Calif.		Robert J. Cook	
Savannah (Ga.)	4	Glover H. Copher	
Seattle (Wash.)	43	Justin J. Cordonnier	
William H. Gray, Yakima, Wash.		James B. Costen	
Alvin R. Miller, Seattle		Russel J. Crider, St. Charles, Mo.	
C. A. Nielsen, Seattle		Robert J. Crossen	
Paul R. Rollins, Seattle		F. R. Crouch, Farmington, Mo.	
Charles Teel, Bellingham, Wash.		Eric A. Cunningham, Louisiana, Mo.	
William L. Topp, Seattle, Wash.		Andrew Darling	
Lawrence M. Wilson, Olympia, Wash.		H. M. Denny, Union, Mo.	
Shreveport (La.)	3	James A. Dickson	
Sioux City (La.)	10	M. A. Diehr	
Bernard S. Clark, Spearfish, S. D.		James J. Donohue, E. St. Louis, Ill.	
Spokane (Wash.)	24	Max Deutch	
Alfred O. Adams, Spokane		Norman W. Drey	
Paul B. Nutter, Spokane		Donald E. Eggleston, Macon, Mo.	
W. A. Olds, Colville, Wash.		Edwin C. Ernst	
Syracuse (N. Y.)	5	Walter Fischel	
Clayton H. Manry, Syracuse		I. J. F lance	
Arthur B. Raffl, Syracuse		N. M. Freund	
Henry N. Reid, Rome, N. Y.		David Friedman, Granite City, Ill.	
John E. Wattenberg, Cortland, N. Y.		Joseph J. Gitt	
St. Louis (Mo.)	975	Helen Hofsommer Glaser	
Oliver Abel, Jr.		B. Y. Glassberg	
Helen M. Aff		Alfred Goldman	
Duff S. Allen		Melvin L. Goldman	
Henry C. Allen		Samuel W. Gollub	
Robert L. Andrae, Louisiana, Mo.		Leo Gottlieb	
A. N. Arneson		R. B. H. Gradwohl	
James W. Bagby		Samuel B. Grant	
James M. Baker, Columbia, Mo.		Theodore Greiner	
Alfred K. Baur		Otto H. Grunow	
Sim F. Beam		Paul O. Hagemann	
William G. Becke		Willis Hall	
Grace Bergner		Guerdan Hardy	
Donald S. Bottom, Alton, Ill.		Carl G. Harford	
Eugene M. Bricker		Stanley Hampton	
James Barrett Brown		H. R. Hildreth	
Seymour Brown		A. Herman Hutto	
James H. Bryan		Joseph C. Jaudon	
Stanley S. Burns		J. Ted Jean	
Louis T. Byars		John T. Johnstone, Jr.	
Delevan Calkins		Dorothy J. Jones	
Cecil M. Charles		Louis H. Jorstad	
		Frederick E. Jostes	

<i>Trading Area Center</i>	<i>No. of Graduates in Trading Area</i>	<i>Trading Area Center</i>	<i>No. of Graduates in Trading Area</i>
J. P. Keim		Carvel T. Shaw, Hermann, Mo.	
Bruce Kenamore		David M. Skilling	
Richard K. Kimmel		David E. Smith	
Walter C. G. Kirchner		Robert M. Smith	
Robert E. Koch		Selden Spencer	
Lawrence M. Kotner		Frances H. Stewart	
William B. Kountz		Jacob Stolar	
Edward H. Kowert		F. E. Sultzman, Hannibal, Mo.	
G. Bruce Lemmon, Springfield, Mo.		Barrett L. Taussig	
Carl E. Lischer		Robert J. Terry	
Joseph Magidson		E. H. Theis, Granite City, Ill.	
Guy N. Magness		J. William Thompson	
Morris D. Marcus		Louis L. Tureen	
S. P. Martin, East Prairie, Mo.		Frank Vellios	
Edward Massie		Helman C. Wasserman	
Harold E. McCann		George L. Watkins, Farmington, Mo.	
Frank McDowell		George L. Watkins, Jr., Farmington, Mo.	
William H. Meinberg		Irvin Weisman, Granite City, Ill.	
Herman M. Meyer		Harvey Lester White	
Benjamin Milder		Herbert C. Wiegand	
Gordon F. Moore		W. B. Wilcoxon, Bowling Green, Mo.	
P. G. Moskop		Frederick E. Woodruff	
I. D. Newmark, Chester, Ill.		Oscar C. Zink	
Mary Louise Newman, Jacksonvil'e, Ill.		Tampa (Fla.)	8
Joseph W. Noah		Roscoe Maxwell, Punta Gorda, Fla.	
R. A. Nussbaum		Toledo (Ohio)	4
John F. Patton		Edward L. Burns, Toledo	
Burnet W. Peden		Tulsa (Okla.)	39
Virginia H. Peden		Alfred H. Hathcock, Fayetteville, Ark.	
Claude D. Pickrell		Washington, D. C.	30
A. Victor Reese		Brian B. Blades	
Edward H. Reinhard		Harlan I. Firminger, Bethesda, Md.	
John Q. Roane, Carlyle, Ill.		Wichita (Kan.)	34
Melvin A. Roblee		Wilbur G. Gillett, Wichita	
Dalton K. Rose		Wirt A. Warren, Wichita	
Harry D. Rosenbaum		Outside United States	34
David Rothman		H. M. Chandler, Waipahu, T. H.	
Llewellyn Sale		L. R. Fernandez, Laupahoe, T. H.	
Llewellyn Sale, Jr.		Herbert H. Gass, India	
Jay Marvin Salzman, Springfield, Ill.		H. A. Geitz, Monterrey, N.L., Mexico	
John A. Saxton		Kiyoshi Inouye, Honolulu, T. H.	
Samuel Schneider		R. D. Kepner, Honolulu, T. H.	
Clive D. Scott, Louisiana, Mo.		Eichi Masunaga, T. H.	
Wendell G. Scott		Kazuo Miyamoto, Honolulu, T. H.	
Frederick O. Schwartz			
Bernard Schwartzman			
Ben H. Senturia			

James W. Owen, Jr., Guam, M. I.
Richard Y. Sakimoto, Honolulu, T. H.
Sam R. Wallis, Kauai, T. H.

Cancer Research Construction Progressing Ahead of Schedule

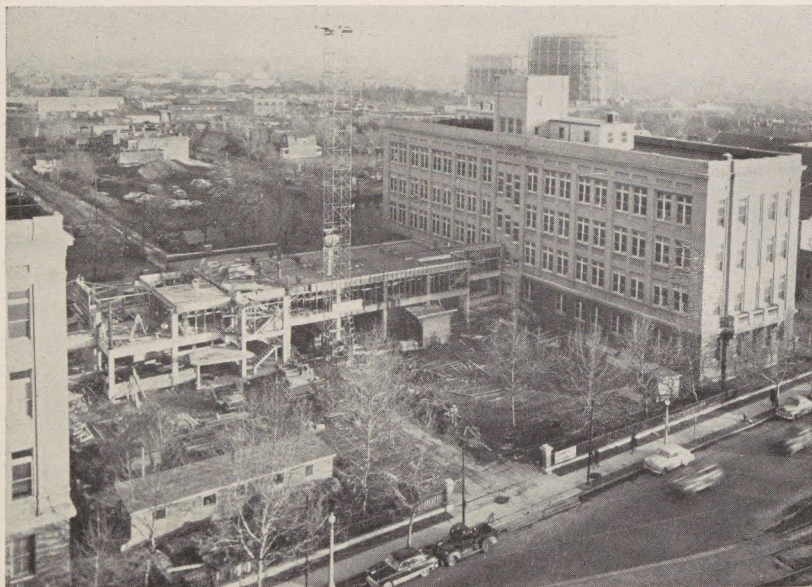
Construction work on the new Cancer Research Building going up between the north and south wings of the Medical School Building is running about three weeks ahead of schedule, according to representatives of the contractor, Gamble Construction Company. More than one-third of the concrete work on the entire building was in place on the first of January, as shown in the accompanying photograph. Excavation was begun the first of October, and unusually mild winter weather has helped materially in construction progress.

Scale Model of Medical Center Built in Plastic on Exhibition

A plastic model of the Washington University Medical Center has been built for the purpose of visualizing the progress made in the past several years and the application of plans for the future which are now in progress.

Blocks of plastic in colors have been cut to represent each structure, and they can be lighted individually for demonstration purposes. Existing buildings are represented in white plastic, those under construction or planned for the near future are of blue, and projected plans are in red.

The model is complete, even to streets, the Wabash tracks, and shrubs, and was built to a scale of one inch to forty feet.



Construction scene at Cancer Research Building during January.

DEPARTMENTAL NEWS

Anatomy

Dr. Robert J. Terry '95, professor emeritus of anatomy, returned last fall to active work in his laboratory on the fourth floor of the north building. He had spent the preceding few months in the East.

Dr. Edmund V. Cowdry, professor of anatomy, was one of an international group interested in cancer who spoke on "Radio Diffusion Francaise," the French Broadcasting System in North America. The broadcast was on Nov. 19 and his subject was "Cancer of the Skin."

During the month of October, the Department of Anatomy was host to six foreign visitors. They were: Dr. Torben Geill of the Danish Society for Research on Aging, from Copenhagen; Dr. M. V. Sirsat from Tata Memorial Hospital in Bombay, India; Dr. Stig Lindgren of Karlskoga, Sweden; and, from Stockholm, Drs. C. Thorsen, P. L. Sandblom, and O. Schuberth.

Bacteriology and Immunology

An electron microscope in the Department was put into operation early in February, according to Dr. J. J. Bronfenbrenner. Funds for the purchase of this instrument came from the Damon Runyon Memorial Cancer Fund, and it is located on the fourth floor of the Clinic Building in the Damon Runyon Laboratory of Electron Microscopy. The microscope was manufactured by the Radio Corporation of America. It arrived in twelve separate crates and required the preparation of a separate

room for installation and dark room facilities.

Biochemistry

Dr. Gerty T. Cori, professor of biological chemistry, was awarded an honorary degree of doctor of science from Smith College in Northampton, Mass., on Oct. 20. She spoke on "Biochemistry—the Science of Life Processes" before students and guests assembled for the 75th anniversary of the college's founding and for the inauguration of a new president. Dr. Cori spoke to the Smith chapter of Sigma Xi the previous day on "Some Aspects of Biological Energy." Also on Oct. 20 she addressed the science departments of Mount Holyoke College on "Some Aspects of Biological Chemistry."

Dr. Herman Kalckar, director of the Institute of Cellular Physiology and research professor at the University of Copenhagen in Denmark, arrived in St. Louis on Nov. 10 for two months' study under Dr. Carl F. Cori in the Department of Biological Chemistry. Dr. Kalckar studied here in the Department of Pharmacology for about two and a half years and left in 1943. He was studying under a fellowship from the Rockefeller Foundation, and on Oct. 27 gave the Harvey Lecture in New York.

Dr. Claude Liebecq arrived the latter part of October for a year's study on carbohydrate metabolism in the Department of Biological Chemistry. He is a fellow of the Belgian-American Educational Foundation.

Division of Gerontology

Several staff members reported on various investigations into the field of gerontology at the second annual scientific meeting of the Gerontological Society Nov. 5 and 6 in Chicago, in cooperation with the American Society for the Study of Arteriosclerosis.

Dr. Robert A. Moore, Dean and professor of pathology, was moderator at a round table discussion. Dr. William B. Kountz of the Division of Gerontology spoke on "Protein Studies in Elderly Individuals," and Dr. Esben Kirk, director of the Division, talked on "Vitamin Studies in Elderly Subjects." Dr. Kirk and Dr. S. A. Kvorning presented a joint paper on "Quantitative Measurements of Skin Elasticity and Resilience in Young and Old Individuals."

Dr. Margaret Chieffi and Dr. Kirk presented, "Effect in Old Individuals of Parenteral and Local Administration of Testosterone and Estrogen on Elastic Properties of the Skin." Dr. Albert I. Lansing and Dr. Morris Alex spoke on "Calcium and Elastin in Human Arteriosclerosis." Dr. Dean F. Davies gave a paper on "Age Incidence of Lesions Contributing and Not Contributing to Death," prepared with Dr. Henry Simms of Columbia University.

Dr. Edmund V. Cowdry and Dr. Warren Andrew of George Washington University presented "Some Cytochemical and Cytologic Aspects of Senile Keratosis."

Internal Medicine

Dr. Carl V. Moore '32, professor of medicine, spoke on the use of radio-

active iron in the determination of iron absorption before the American Public Health Association in New York, Oct. 25. Dr. Moore also spoke at the American College of Surgeons meeting in Chicago on Oct. 20, on "Chemotherapy of Malignant Neoplastic Disease."

Dr. Richard Weiss '09, professor of clinical dermatology, Dr. Adolph H. Conrad '06, assistant professor of clinical dermatology, and Dr. Adolph H. Conrad, Jr. '38, instructor in clinical dermatology, attended the meeting of the American Academy of Dermatology in Chicago, Dec. 5 through 8.

Dr. Edward H. Reinhard '39, associate professor of medicine, recently was appointed chairman of the Panel on Radiobiology of the Committee on Growth, National Research Council. He is also a member of the Section on Fellowships of the Committee. Dr. Reinhard spoke on the chemotherapy of malignant diseases before the Missouri Society of Pathologists in Columbia, Mo., on Oct. 21.

Neuropsychiatry

In recognition of their service in testing applicants for the St. Louis Police Department, Dr. Robert I. Watson and Dr. Philip DuBois were presented with awards from the Board of Police Commissions on November 18. Dr. Watson is associate professor of medical psychology and assistant dean; Dr. DuBois is in the Department of Psychology at the University.

Dr. George Saslow, associate professor of psychiatry, spoke before the Association for Research in Nervous and Mental Disease in New York, Dec. 2-3.

He spoke on personality features, reactions and behavior patterns of patients with essential hypertension. Dr. Ernest H. Parsons, assistant professor of clinical psychiatry, attended the meeting.

Dr. Robert I. Watson, assistant dean and associate professor of medical psychology, gave the annual address at the banquet of the Pryor Pre-Medical Society of the University of Kentucky on Dec. 9. He spoke on "From Pre-Medicine through Residency."

Obstetrics — Gynecology

The Board of Trustees of Barnes Hospital has authorized the creation of a Tribute Fund for St. Louis Maternity Hospital. The Fund is now in existence and contributions to it may be sent to "The St. Louis Maternity Hospital Tribute Fund," 630 S. Kingshighway, St. Louis 10, Mo. Contributions will be received by the Trustees and segregated for disbursement by them upon authorization by the professor of obstetrics and gynecology. The Tribute Fund will be used for the purchase of any special equipment the staff may request, or for other professional expenditures not covered in the budget of the hospital.

Otolaryngology

Dr. Theodore E. Walsh, professor of otolaryngology, gave three talks at the Iowa College of Medicine Conference on Otolaryngology in Iowa City, Nov. 29 through Dec. 2. His topics were "Acute and Chronic Otitis Sinusitis"; and the "Prognosis and Evaluation of Surgery for Deafness." On Nov. 9 and 10, Dr. Walsh was guest speaker for

the annual Southwest Regional Cancer Conference in Fort Worth.

Recent visitors to the Department of Otolaryngology were Dr. J. Hernandez of Buenos Aires, Dr. Bernardo Ferreira, also from Argentina, and Dr. Gosta Dohlman of Lund, Sweden. Dr. Dohlman addressed the Thursday morning departmental conference.

Pathology

Several members of the Department of Pathology attended the meeting of the American Society of Clinical Pathologists in Chicago, Oct. 11-15, in conjunction with the College of American Pathologists. Dr. Robert A. Moore took part in a panel discussion on the training of residents by the conference method in clinical pathology. Among those attending from here were Drs. Gustave Dammin, Raymond F. Hain, Menard Ihnen, E. M. Nadel, Edward B. Smith, William Snoddy, F. G. Stephens, Pradit Tansurat, Calvin J. Wegner, and Thomas L. Young.

Pediatrics

Dr. Merl J. Carson, assistant professor of pediatrics, and Dr. Thomas H. Burford, associate professor of surgery, spoke before the Western Illinois regional clinical conference of the Illinois Heart Association in Jacksonville on Dec. 6. Their subject was "Congenital Heart Disease," with Dr. Carson speaking on medical management and diagnosis and Dr. Burford on the surgical aspects.

Dr. Jean V. Cooke, professor of pediatrics, gave two talks at a postgraduate conference in pediatrics held dur-

ing the semi-annual meeting of the Iowa Pediatrics Society in Iowa City, Oct. 11 and 12. His topics were "Leukemia in Children and Its Therapy with Folic Acid Antagonists" and "Effects of Specific Therapy on the Common Contagious Diseases."

Dr. Anibal Ariztia, professor of pediatrics at the Medical School of the University of Chile in Santiago, was a visitor in the Medical Center on November 21. He spent the day observing methods of treatment and administration in all the hospitals here, particularly at Children's Hospital.

Pharmacology

The first Jackson Johnson Fellowship for research work by a medical student was awarded to Miss Anne Dodge, who has been working in the Department of Pharmacology since September. Miss Dodge has completed her first two years of medical school here and will resume her studies toward the M.D. degree next fall. She is the first student here to be awarded a fellowship from the Jackson Johnson Fund, and is carrying out a new plan—that of interrupting the medical education between the sophomore and junior years for a year in research work. She is working under Dr. Helen Graham, associate professor of pharmacology, on chemical methods for the determination of histamine and on histaminase, the enzyme which destroys histamine. Miss Dodge was graduated from Washington University, and her father is Dr. Carroll W. Dodge, professor of botany at the University. Her home is in University City.

Physiology

Three recent visitors to the Department of Physiology were: Dr. Carl A. Skoglund, associate professor of the Nobel Institute for Neurophysiology in Stockholm; Mr. Robert E. Taylor of the physiology department at the University of Rochester; and Dr. Sheppard M. Walker, former staff member who joined the University of Louisville this fall. Dr. Walker was here just before the holidays, and Dr. Skoglund and Mr. Taylor during the middle of December.

Dr. Sheppard M. Walker, assistant professor of physiology, resigned effective Oct. 31 to accept an appointment as associate professor of physiology at the University of Louisville.

Preventive Medicine

Dr. George M. Saunders, associate professor of preventive medicine and associate professor of clinical medicine, has resigned from the Medical School staff to accept a position as medical director for Overseas Operations of the Socony-Vacuum Oil Company. He will assume his new duties in New York after January 1. Dr. Saunders has been associate medical director for Monsanto Chemical Company and regional consultant in tropical medicine for the Veterans Administration here. He joined the medical staff in May of 1946 following his release from active duty with the Navy. Recently, Dr. Saunders was elected a councilor of the American Society of Tropical Medicine.

Dr. Robert E. Shank, professor of preventive medicine and public health,

has accepted a recent appointment as medical nutrition consultant to the United States Public Health Service.

Radiology

Five members of the Radiology Department participated in the meeting of the Radiological Society of North America in Cleveland from Dec. 4-9. Dr. A. N. Arneson, associate professor of clinical radiology, was chairman of the symposium on cancer of the cervix uteri and gave a paper entitled "The Gynecological Examination." Dr. Wendell G. Scott, associate professor of clinical radiology, and Dr. Wayne A. Simril, assistant in radiology, gave a paper on "Developments of Cerebral Angiography." An exhibit on cerebral angiography was presented by Dr. Scott, Dr. William B. Seaman, instructor, and Dr. Thomas Keely, assistant, in radiology.

Staff Members Appointed on Committee to Consider Gerontological Organizing

During the meeting of the American Gerontological Society in Chicago on November 5, three staff members from the School of Medicine were appointed to a committee which is considering the problem of organizing an International Association of Gerontological Societies. They were: Dr. Robert A. Moore, Dean and professor of pathology; Dr. Edmund V. Cowdry, professor of anatomy; and Dr. Albert I. Lansing, associate professor of anatomy. The other two members are Dr. A. J. Carlson of Chicago and Dr. Nathan W.

(Continued on next page)

Surgery

A paper on "Prevention of Facial Deformities in Wry Neck," by Drs. James Barrett Brown '23, Frank McDowell '36, and Minot P. Fryer of the Department of Surgery, was presented at the meeting of the Southern Surgical Association in White Sulphur Springs, Va., on Dec. 6.

Dr. Evarts A. Graham, professor of surgery, gave the presidential address to the Interstate Postgraduate Medical Association, which met in Philadelphia on Nov. 2. As retiring president, he spoke on "Changing Concepts in Surgery."

Miss Erna Rozmarynowski Appointed New Occupational Therapy Director

Miss Erna L. Rozmarynowski arrived December 12 to assume her duties as new director of the School of Occupational Therapy. She comes to Washington University from the Veterans Administration Hospital in Danville, Ill., where she has been chief of occupational therapy.

A native of Wisconsin, Miss Rozmarynowski received her training in occupational therapy and a certificate from the Milwaukee-Downer College in 1944. Following graduation, she served from 1944 to 1947 at Vaughn General Hospital (Hines, Ill.); Newton D. Baker General Hospital (Martinsburg, W. Va.); and Tilton General Hospital (Fort Dix, N. J.). She returned to Milwaukee-Downer to obtain her B.S. degree in 1948, and subsequently went to Danville, Ill.

Danforth Chapel to Be Built in Addition at Barnes Hospital

Work has been started on a three-story addition to Barnes Hospital in the areaway between Barnes and Mallinckrodt Institute of Radiology, on the northwest corner of the main lobby. This addition will house, on the first floor entering off the main lobby, a chapel donated by Mr. William Danforth, chairman of the board at the Ralston Purina Company. The hospital will furnish a shell of a building, and Mr. Danforth will completely finish and furnish the chapel. It will be open to all and will replace the present chapel on the third floor of Barnes Hospital.

The second floor of this new addition will provide a much-needed enlargement of facilities for the Chest Service. A surgical convalescent ward is to be located on the third floor, where surgical patients can be taken for at least the first half-day following operation in order to receive the very best of post-operative surgical nursing care.

Gerontology (continued)

Shock of Baltimore. Dr. Cowdry is United States representative on the International Cancer Research Commission.

Lord William R. Nuffield has extended personal invitations to these five men to attend an "informal round table discussion on the ways and means for the more rapid progress of research on old age" in England next summer. They would be guests of Lord Nuffield while there and, following the conference,

Frank C. Rand, Trustee at Barnes, Dies December 2

The death of Mr. Frank C. Rand, great philanthropist, civic and business leader, on December 2, was saddening news to all connected with the Medical Center. Mr. Rand died at Barnes Hospital after an unexpected turn for the worse following a chest operation.

A trustee of the hospital for 32 years, he had served as chairman of the Board of Trustees for 26 years, and was largely responsible for the enlargement of Barnes with the addition of the Rand-Johnson Memorial Surgical Wing in 1931. His support aided the progress of the Washington University School of Nursing, as well as that at his alma mater, Vanderbilt University.

Mr. Rand rose to the chairmanship of the board at International Shoe Company after having started as a stock clerk with Roberts, Johnson, Rand Shoe Company before it merged with Peters Shoe to form International. He had served as chairman of the board from 1930 until the time of his death. Mr. Rand also was a director of several large corporations and banks here.

Mr. Rand's death is a great loss to St. Louis and to the institutions which he aided. His generosity to and interest in Barnes Hospital have helped it progress to give better service to the people.

would represent the American Gerontological Society at the First International Gerontological Conference in Liege, Belgium, on July 9 through 11.

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October - December, 1949

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Alumni News

1888

W. A. Braecklein has moved recently from Higginsville, Mo., to Tucson, Ariz.

1894

Horace W. Soper was named an honorary fellow of the International Academy of Proctology early last fall.

1895

William A. Tolleson of Eufaula, Okla., recently was awarded the Medal of Merit by the Department of the Interior for outstanding service over a long period of time in government Indian service.

Sandor Horwitz is at the Sweney Convalescent Home, Randolph at Hamilton, in Peoria, Ill., and is ill with severe bur-sitis. He is anxious to hear from friends and classmates now that he has returned to his home town from the Veterans Hospital in Dwight, Ill. Dr. Horwitz retired as health superintendent for the Peoria district in December, 1948, after 38 years of service in the field of public health. He has practiced medicine for more than 50 years.

1896

William F. A. Schultz is now living at 6958 Coronado, Dallas 14, Texas, after 32 years at 7117 Lindell in St. Louis.

1898

The QUARTERLY apologizes to **John A. Russell** for an erroneous report in the October issue of his passing. Dr. Russell is in Auburn, Calif.

1905

Sherwood Moore of St. Louis was elected vice-president of the American Cancer Society at the annual meeting held in New York, October 29.

1912

George S. Gilpin visited the Alumni Office and the Medical Center on November 12, 1949, for his first visit to St. Louis since his graduation. He was amazed

at the extent of the medical center compared to the medical school his class occupied. He was accompanied by **Herbert Atherton '36**, of St. Louis, who was acting as guide. Dr. Gilpin's address is Box 5548, 3241 W. 65th St., Cleveland, O.

Arthur W. Proetz, professor of clinical otolaryngology in the Medical School, gave two lectures for the postgraduate course given by the Virginia Otolaryngology Society in Richmond, Va., on November 29.

1915

Eugene R. Kellersberger, as general secretary for the American Mission to Lepers, spoke to faculty members and students of the Medical School here on Monday, November 7. Dr. Kellersberger is a medical missionary in the Belgian Congo, Africa, and an authority on leprosy, or Hansen's Disease. He and Mrs. Kellersberger were in St. Louis for four days and spoke to many church groups in the city.

1917

John E. Wattenberg of Cortland, New York, visited the medical school recently, observing operations and seeing old friends. He came here from Chicago where he attended the meeting of the American College of Surgeons. He and Mrs. Wattenberg were guests of his nephew, Dr. Carl Wattenberg, and his wife.

1920

Harvey Lester White, professor of physiology at the Medical School, spoke to the professional staff of the Medical Department Field Research Laboratory in Fort Knox, Ky., on January 30. His topic was "Anterior Lobe Influence on Renal Function."

The Missouri Society for Crippled Children and Adults, Inc., presented a testimonial award to **Frederick A. Jostes** on October 21 "in recognition of devoted and distinguished service to the crippled children of Missouri." In the

award citation, he was credited with launching the State Crippled Children's Service in 1927 and helping the Missouri Society in its organization and development. As an officer in the Navy during the war, Dr. Jostes outfitted the Mount Vernon for transportation of wounded servicemen, and was chief of its medical staff on twenty missions across the Pacific. Following this tour of duty, he returned to Washington to write the Navy's treatise on rehabilitation and served on the Baruch Committee for Post-War Rehabilitation. Dr. Jostes is assistant professor of clinical orthopedic surgery and is consultant to the Veterans Hospital at Jefferson Barracks.

1921

W. A. Showman, Tulsa dermatologist, was named president-elect of the Tulsa County Medical Society on December 12, to serve in 1951. Dr. Showman is a former vice-president and five-year member of the board of trustees of the organization. This information was sent to the Quarterly by **Charles L. Caldwell** '28, also of Tulsa, Okla.

1922

The address of **Calvin Clay** is 106 Washington in St. Charles, Mo.

1925

The Class of 1925 will celebrate its Silver Anniversary during the coming **1950 Alumni Clinical-Reunion on May 5 and 6**. All class members are urged to "meet us in St. Looney in 1950!!" by the seven members of the committee. Plans are being completed for a cocktail party (just for '25'ers) before the Alumni Banquet, and for an afternoon at Bob Crossen's. All 1925 graduates are urged to make plans now for celebrating this Silver Anniversary, and to contact the committee: **Charles H. Beasley, James J. Donahue, Jerome S. Levy, Franz Arzt, Myron W. Davis, Robert J. Crossen, and Melvin A. Roblee**, all of St. Louis.

1926

Henry A. Romberg is living at 1354 Plummer Ave., Oshkosh, Wis.

1927

The address of **Kazuo Miyamoto** is 2525 Coyne, Honolulu, Hawaii.

Abigail E. Smith recently moved to 55 Gleason Rd., Lexington 73, Mass.

Hugh M. Wilson, professor of radiology at the Medical School, presented a paper on "The Indications for Radiation Therapy," at the Nashville (Tenn.) Post-graduate Assemblé, October 4-6.

1929

Grace Edwards Barar has returned to India after spending about a year in the United States. Her address is now 17 Kamla Nehru Road, Allahabad, U. P. India.

1930

Donald Eggleston is practicing in Macon, Mo., and his address is 108½ Vine Street.

Donald Chamberlin recently moved to 9 Bay State Rd., Wellesley Hills, Mass.

Herbert H. Gass left this country on December 30 to return to Christian Medical College Hospital in Vellore, Madras Presidency, India. Dr. Gass was on missionary furlough for several months doing postgraduate work.

1931

Pendleton Tompkins of 450 Sutter St., San Francisco, is the editor of "Fertility and Sterility," a bi-monthly journal devoted to the clinical aspects of infertility. The first issue is to appear in January.

1932

Wendell G. Scott, associate professor of clinical radiology in the Medical School, was awarded a certificate of merit for the exhibit on the Rapidograph and its clinical applications in cardiovascular angiography and cerebral angiography at the December meeting of the American Roentgen Ray Society in Cincinnati. He:

was re-elected treasurer of the Society and was appointed chairman of local arrangements for the 50th anniversary meeting, which is to be held in St. Louis the last week of next September.

1933

Richard Sakimoto recently transferred his office from 308 Dillingham Building to the Medical Arts Building at 1010 S. King St., in Honolulu, Hawaii. This building was constructed recently by Dr. Sakimoto's family with the intention of renting offices to men who are certified by the American Board in the different specialties. **Clarence J. Kusunoki '37** (E.N.T.) and **Yasuyuki Fukushima '43** (general surgery) have offices in the new building.

1934

The address of **T. C. Campbell** is 7322 Maple St., New Orleans, La.

1935

Ben H. Senturia, assistant professor of clinical otolaryngology in the Medical School, addressed the Columbus (Ohio) Ophthalmological and Otolaryngological Society on December 5, speaking on "Infections of the External Ear."

Edward Massie, assistant professor of clinical medicine, presented a paper on management of coronary disease at the regional meeting of the Illinois Heart Association at Centralia, Ill., on October 20. The following day he presented a similar paper to combined county medical societies at Houston, Mo. Two papers by Dr. Massie and co-authors were presented at the meeting of the Central Society for Clinical Research in Chicago on November 4. Titles were "Excretion of an Anti-Diuretic Substance in Urine of Patients with Cardiac Failure;" and "Congestive Heart Failure in Hyponatremia: Untoward Effects of Mercurial Diuresis."

1936

Carl W. Smith moved last December from Orinda, Calif., to 17069 Los Reyes Ave., in Hayward, Calif.

During late November and early December, **Robert J. Mueller**, assistant in clinical neuropsychiatry on the staff here, spoke to several church groups in St. Louis on general aspects of psychiatry, psychosomatic medicine, and the role of the clergy in psychiatry.

1937

Julian P. Levinson can be reached at 3500 Fifth Ave., in Pittsburgh 13, Pa.

L. E. Haentzschel is now with the Aid Association for Lutherans, Insurance Building, Appleton, Wis.

1939

Miles Foster's address is now 1521 Rockbrook Rd., Omaha 4, Neb.

Charles Eckert, assistant professor of surgery at the Medical School, was guest speaker for the Vandenburg County Medical Society in Evansville, Ind., on December 15. He spoke on "The Use of Hormones in Treatment of Malignant Disease."

Vilray P. Blair, Jr., has offices in the Beaumont Medical Building, 3720 Washington, St. Louis.

1940

The present address of **John H. Savory** is East Jordan, Mich., where he is in private practice.

Harvel B. Clarke's address is 960 E. Green St., Pasadena, Calif.

1941

Henry Schwarz is at Jefferson Barracks, Mo., where his address is 5 E. Hancock.

Leon Kahn has an address at 337 S. Beverly Dr., Beverly Hills, Calif.

1942

Alex Harell has been appointed to the full-time staff of the School of Medicine as assistant in physical medicine and orthopedic surgery.

Frances M. Love was married January 7 in Richland, Wash., to Lewis F. Huck, counsel for the department of General

Electric Co. which is responsible for operation of the Atomic Energy Commission's installation in Richland. Dr. Love formerly was chief resident physician at Children's Medical Center in Dallas, Tex., and has been assistant clinical professor of pediatrics at Southwestern Medical College. She is now head of the pediatrics division of Kadlec Hospital Clinic in Richland.

Richard A. Preston recently opened offices at 1521 N. Broadway, Santa Ana, Calif., for the practice of ophthalmology.

1943

James A. Miller recently moved from St. Louis to 544 20th St., Rock Island, Ill.

Edson Rupp is in Royal Oak, Mich., where his address is 202 Crane St.

Donald E. Smith has written the following: "I have just completed a fellowship in internal medicine at the Mayo Clinic, Rochester, Minn., and am now entering private practice. In addition, I will be an instructor in the outpatient clinics of the University of Utah School of Medicine. Mrs. Smith and I now have two boys, Stephen and Terrell. Our home address is 1530 Downington Ave., Salt Lake City, Utah."

Howard P. Joslyn has moved from Mexico, Mo., to 205 S. Washington in Taylorville, Ill., where he has opened an office for general practice.

Gerald E. Guemmer can be reached at 9800 S. Avers., Chicago 42, Ill.

Irvin H. Mattick is now at the Carrie Tingley Hospital for Crippled Children in Hot Springs, New Mexico. He was formerly at the Naval Hospital at Great Lakes, Ill.

1946

Raymond R. Bates has moved from Detroit to 1227 E. 5th St., in Tucson, Ariz.

Albert P. Rauber is now in Atlanta, Ga., at 1452 Rock Springs St.

John B. Shapleigh lives at 337 Westminster, San Antonio, Tex.

Victor B. Kieffer, Jr., recently returned from army duty in Europe and his address is 7369 Pershing, Apt. 2-E, St. Louis.

Capt. Leonard J. Wiedershine has an address at 1373 Kenton, Aurora, Colo.

Ewan Cadman, who is in the Department of Medicine of the University of Liverpool, wrote the following letter recently: "For the whole of the last year I have been first assistant to the professor of medicine here. The professor has recently been honored by a knighthood—now Sir Henry Cohen. My work is still largely clinical—wards, outpatients, teaching students, organizing examinations, demonstrations, etc. I am attempting some neuropathological work on the side, but my main work is so time-consuming that little time is available for such tricky work. One of the highlights of the year has been the visit of Dr. Ernest Sachs. He gave the Liverpool Medical Institute an address and I was able to renew my acquaintanceship with him. Dr. Evarts Graham was over here for the Royal College of Surgeons lecture, but I was unable to go to London for this. The University here is rapidly appointing full-time heads of departments. I am hoping to enter the experimental laboratories of the Department when my present clinical post ends. The Health Service seems to be working very well so far as the hospitals and University are concerned. As to the general practitioner services, I am not competent to speak. Best wishes to all at W. U."

1947

George Sato is at City of Detroit Receiving Hospital in Detroit, Mich.

1948

James S. McLean is at 1246 Summer St., Hammond, Ind.

Juro J. Shintani is at the Veterans Hospital, Perry Point, Md.

James F. Nickel is living at 1203 Ruffin, Durham, N. C.

In Memoriam

1875

W. W. Hull of Sulphur Springs, Mo., died Sept. 26, 1949 at the age of 94 years.

1881

William E. Ground passed away November 29, 1949. He had offices in the Board of Trade Building in Superior, Wis.

1886

Edwin H. Bosse of St. Louis died November 10, 1949 at 79 years of age.

Henry Jacobson, 84, died December 21, 1949, in a nursing home in St. Louis, following a long illness. He was a former secretary of the Missouri State Medical Association and had offices in the Central National Bank Building until his retirement in 1941.

1887

Fritz Neuhoff, also of St. Louis, died on August 20, 1949.

1889

Frederick W. Holtgrewe, who lived at 1501a Benton St., in St. Louis, died there on October 3, 1949.

1898

The Post Office Department reports that **Robert L. St. Clair** of Kansas City, Mo., died late last fall.

Walter E. Smith passed away on Thanksgiving Day, November 24, 1949, at his home in Tulsa, Okla., after an illness of several weeks. He had prac-

ticed in Fairland, Collinsville, and Tulsa, Okla. Surviving are his widow, two sons, and four grandchildren.

1901

James E. Drake of Spokane, Wash., died in the spring of 1949.

1902

Edwin L. Apperson died in Denver, Colo., on September 29, 1949.

1923

Dudley R. Smith passed away at St. Luke's Hospital in St. Louis on August 16, 1949, of pneumonia. He was 51 years old, and is survived by his widow and three sons. Dr. Smith was assistant professor of clinical obstetrics and gynecology in the Medical School.

1947

John D. King, pathology intern at Duke University Hospital, died in an automobile accident in Durham, N. C., in November, 1949. He had served a rotating internship at Syracuse University following graduation, then went to Duke University Hospital as surgical intern before being appointed pathology intern. He is survived by two brothers, one of whom is **Dr. George W. King**, '46.

1949

Man Hing Au died November 23, 1949, at Cincinnati General Hospital, where he was serving his internship. The cause of death was cancer. He was married last June to Miss Rose Chu Quin.

WASHINGTON UNIVERSITY

Arthur H. Compton, Ph.D., Sc.D., LL.D., *Bridge Chancellor*
Charles Belknap, B.S., *Vice-Chancellor*
Edward K. Graham, Ph.D., *Dean of Faculties*
Thomas Edward Blackwell, Ph.B., M.S., J.D.,
Director of Business Administration

- The College of Liberal Arts
Thomas S. Hall, Ph.D., Dean
- The School of Engineering
Lawence E. Stout, Ph.D., Ch.E., Dean
- The School of Architecture
Joseph D. Murphy, Dean
- The School of Business and Public Administration
Leslie J. Buchan, Ph.D., Dean
- The George Warren Brown School of Social Work
Benjamin E. Youngdahl, A.M., Dean
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Henry N. Andrews, Jr., Ph.D., Acting Dean
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