Nobel Prizes in Medicine
1943-44

The Problem of the Neuropsychiatric Soldier
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Nobel Prizes in Medicine
1943 - 1944

The award of the Nobel Prizes in Medicine for 1943 and 1944 to Joseph Erlanger, Herbert S. Gasser and Edward A. Doisy is an event that warms the heart of everyone connected with this University. We, who from close association have long had great admiration and regard for these distinguished scientists, find no surprise in their being selected for highest professional honors. All will share the pride with which the Quarterly extends to them congratulations and joins in celebrating this unique occasion.

While attending the ceremonies in New York on December tenth for the presentation of the Nobel Awards, the question was repeatedly asked the representative of Washington University: “How could it happen?” Some envious friends even asked: “How did St. Louis and Washington University manage it?” The unprecedented triple award to three men who some twenty odd years ago were at work in adjacent laboratories of this Medical School, two of them now leading spirits in the universities of St. Louis, has turned a beam of world-wide attention upon these institutions.

In the blinding light of that beam I would venture an answer to the above questions. Coincidence though it may be that three of the newest Nobel Laureates worked almost side by side at Washington University when laying the foundations for their distinction, it was not wholly accidental. Let us recall, for example, that Edgar Allen formed with Doisy a pair of young pioneers, not unlike Gasser and Erlanger, then busy laying trails to progress later extended by many co-workers in many places. Others too, then and now among us, have been similarly occupied. That is the answer.

We like to believe that the high honors bestowed upon our illustrious colleagues reflect a spirit and a policy that this University has consciously cultivated: a policy to seek for its staffs those likely to see fundamental problems and to be able to divine ways to solve them. The spirit comes
Dr. Doisy and Dr. Erlanger

Dr. Gasser
when such men and women labor together and thereby stimulate one another. Nobel Prizes and lesser badges of distinction are deserved rewards for individual accomplishment. May both Washington and St. Louis Universities long foster the spirit revealed by Erlanger, Gasser and Doisy.

Philip A. Shaffer

The Cathode Ray Oscillograph as a Means of Recording Nerve Action Currents

In December 1921 Dr. H. S. Gasser and Dr. Joseph Erlanger presented a paper before the American Physiological Society entitled “The cathode ray oscillograph as a means of recording nerve action currents and induction shocks.” This was the first of a series of publications dealing with the properties of nerve and opened the present era of knowledge and understanding of the function of nerve.

Of the various changes in a nerve incident to activity, chemical, thermal, or electrical, only the last has been found to show changes sufficiently great to permit measurement. Precise quantitative investigation of this activity of nerves was begun about the middle of the nineteenth century but advance was slow because of the lack of instruments that had the qualities of quickness of response and great sensitivity. The use of sensitive but slow-moving galvanometers had already yielded a significant and valuable foundation of knowledge. The more transient, intimate changes associated with the passage of the nerve impulse were known only in a general sort of way, but detailed information could not be elicited by this method. The limiting factor was the high inertia of the usual electrical recording instruments, their responses being too slow to follow the rapid changes of potential created by the passage of a nerve impulse.

During the early part of this century studies of the flow of electrons in evacuated tubes progressed along two lines which have since led to important applications in industrial, scientific, and military fields. One of these was the development of the amplifier tube, the other the development of the cathode ray tube. The action of an amplifier tube is such that a small change of electrical potential may be used to produce a much larger change in a related electrical circuit so that by successive steps of amplification very great gains can be attained. The second device, the cathode ray tube, produces a narrow beam of electrons which are thrown onto the end of an evacuated tube. If the inner surface of the tube is coated with a properly chosen material, a phosphorescent spot is produced where the electron beam strikes. If suitable electrical forces act on the electron beam, the visible spot is deflected upward or downward, to right or to left. Here is an elec-
trical device with practically no inertia and capable of responding to quick changes of potential. Combined with adequate amplification the cathode ray tube offered the almost perfect instrument for recording the rapid electrical changes associated with nerve activity. However, for some twenty-five years after its first description, the cathode ray tube remained so insensitive a device as to render impracticable its use in physiological research. At the suggestion of A. S. Langsdorf, Dean of the School of Engineering at Washington University, Dr. Gasser with H. S. Newcomer experimented with vacuum tube amplification of nerve action currents, using the string galvanometer as the recording instrument and a description of results of the experiments was published in 1921. In December 1920 J. B. Johnson of the Western Electric Company had demonstrated before the American Physical Society a cathode ray tube possessing a greater sensitivity and operating at lower voltages than earlier tubes. Dr. Erlanger and Dr. Gasser learned of the report and decided to attempt the application of the Johnson tube to studies of the nerve response.

There followed what must have been a period of great activity, first in correspondence, and later in the design and making of equipment. The cathode ray tube which had been demonstrated was considered as an experimental model but a similar one was soon shipped to the Department of Physiology at Washington University and an amplifier and control equipment were built here. One year after the report and demonstration by Johnson, Dr. Gasser and Dr. Erlanger made their first report to the American Physiological Society and described the apparatus and the results of a few experiments already performed.

The apparatus assembled during that year was set up in the basement laboratory which has since become so familiar to members of the staff and to visiting axonologists. The selection of the basement room was almost imperative since the amplifier tubes of that time were so sensitive to mechanical disturbances that even heavy concrete piers and carefully damped spring suspensions were found to be sufficiently stable supports only when conditions were favorable. Conditions were not always favorable and the pistol-practice episode related by Dr. White was but one of the minor troubles which were met and solved.

Even the preliminary observations involved dealing with physical as well as physiological problems. Complicated apparatus had to be constructed in the laboratory shop. Rereading of the correspondence with the Bell Telephone Laboratories indicates that not all of the problems were immediately solved. One instance of this sort is found in the copy of a letter dated November 12, 1921, "Dear Dr. Johnson: . . . The tube is working satisfactorily in every respect save one . . . (a difficulty in obtaining a sharp
phosphorescent spot in certain positions on the tube face) ... Is there anything that can be done to overcome this difficulty?" The reply was sympathetic but scarcely helpful. "Dear Dr. Erlanger: ... The ... (difficulty in question) ... is something that we have been troubled with also. We have no good theory as to how that ... is caused so that we have not been able to make a tube that does not show this defect."

However, cathode ray tubes and accessory instruments were improved and in 1924 there was published the classical paper on "The compound nature of the action current of nerve as disclosed by the cathode ray oscillograph." This paper dealt mainly with the form of waves recorded from large nerves such as the phrenic of the dog and the sciatic of the bull-frog. These nerves, removed from the body and placed on electrodes in a moist chamber, were stimulated and the resulting action potentials recorded from points along the nerve trunk. For the sciatic nerve it was found that the wave recorded by the cathode ray oscillograph was not simple but composed of a number of smaller waves, particularly evident as the conduction distance was increased. If the rate of conduction by the many fibers in a nerve showed a random variation the potential wave would decrease and spread
Dr. Erlanger at the control panel

Dr. Erlanger with his granddaughter
out as the conduction distance increased, but would not show undulations or separate into smaller waves. The appearance of secondary waves indicated that a mixed nerve was composed of several types of nerve fibers, each of which had a characteristic rate of conduction. With later work it became apparent that three major groups of fibers could be recognized. These have been referred to as the A, B, and C groups. The fastest A fiber conduct at about 40 meters per second in the frog nerve at room temperature or at 100 meters per second or more in mammalian nerve at body temperature. The slowest C fibers conduct impulses at a fraction of a meter per second.

Time consuming studies of the various properties of nerve were carried out in the ensuing years. The interpretation of the differences in conduction velocities demanded microscopic examination of nerves from which oscillograms had been recorded. It was shown that for each major group, the velocity of conduction varied as the size of the nerve fiber. Susceptibility to block by cocaine was greatest in the fibers of small size and low conduction velocity. Application of pressure causes a block first in the larger fibers. Since it was known that injection of cocaine as a local anesthetic results in loss of pain more readily than loss of touch there was established a groundwork for identification of nerve fiber types with particular sensory and motor functions. Polarization by electrical currents was another procedure used in analyzing the fiber responses.

A nerve fiber, following passage of an impulse, is quite inexcitable for a brief period of time. This absolutely refractory period lasts for about one-thousandth of a second and is followed by a period during which the nerve fiber may be stimulated by shocks stronger than those just sufficient to stimulate the resting nerve fiber. The relative refractoriness may pass gradually to the state of normal excitability or there may be a transient period of supernormality during which the nerve is more easily excited than normally. The frequency with which the nerve can respond is limited by the refractory period. Studies were therefore made of the refractory periods of the various types of fibers and of the alterations produced by previous activity, by change of temperature and by electrical currents.

As physiological knowledge progressed new applications from technical fields were brought into play and the scope of the research broadened. The early equipment had provided such limited amplification and such poor photographic intensity that it had been necessary to stimulate many of the large fibers of a nerve repeatedly if a photographic record was to be obtained for future measurement and detailed study. At present a single response of a single nerve fiber is sufficient to yield an almost ink-sharp record. In the early apparatus, timing and stimulating controls were regulated by laborious adjustment of rotating discs and delicate switches.
Vacuum tubes are now used to give a control which is more flexible and more precise in its action. With the improvements in technic, it became evident that following the quick disturbance of the action potential proper, there is a longer-lasting, much smaller potential change. This, the after-potential, may show local electro-positivity or local electro-negativity, and changes in the excitability of the nerve fibers are directly related to these late potentials.

By this time Dr. Gasser had built a second cathode ray apparatus in the Department of Pharmacology and was beginning experiments directed toward a study of activity within the central nervous system. These experiments were continued and expanded by him and by his associates when he moved to Cornell Medical College. Dr. Erlanger and his collaborators in the Department of Physiology continued to focus their attention on the activity of peripheral nerves. They have increasingly used the responses of single nerve fibers for these studies which they have carried out in recent years.

In this outline of the earlier work for which the Nobel prize in Medicine for 1944 was awarded, no mention of the other workers who have contributed to physiological research in this field has been made. Their contributions have been many and the importance of their work has been great. Other members of the Departments of Physiology and of Pharmacology in this institution, and workers in other institutions, have woven threads into the pattern which has increased in size and in delicacy of detail in the past twenty-odd years. The Nobel awards have been made for work from which there has grown much of the modern knowledge of the intricate mechanisms of the central nervous system. We may justly feel proud of the important contributions to this body of knowledge which have come from the laboratories of Washington University.

Arthur S. Gilson, Jr.

Joseph Erlanger

Dr. Joseph Erlanger was born in San Francisco on January 5, 1874. After two years of high school, he passed the entrance examinations of the University of California in 1891, and graduated in 1895. He entered the Johns Hopkins Medical School in 1895 and graduated in 1899; here he came under the influence of such men as Howell, Welch, Osler, and Halsted. After a year's internship at the Johns Hopkins Hospital, he was offered a fellowship in pathology by Dr. Welch, but declined this for an assistantship in physiology with Dr. Howell. After a year with Howell, he went to Strassburg to work in biochemistry with Hofmeister. Upon return to Hopkins, he held the positions of instructor, associate, and associate pro-
fessor of physiology. Here he began the work on principles and methods of measurement of the blood pressure, and on impulse initiation and conduction in the heart, first loves in physiology which have by no means been supplanted by the more recent interest which brought him the Nobel prize.

In 1906 he was called to Wisconsin as the first professor of physiology in the newly organized medical school. Shortly before leaving for Wisconsin, he married Miss Aimeé Hirstel of San Francisco. Dr. Howell told him that it was rather a large order to start a home and a laboratory at the same time; there are a number of reasons for believing that Dr. Howell's concern was unfounded.

In 1910, Dr. Erlanger was called to the professorship of physiology at Washington University, on the reorganization of the medical school. His first years here were spent in the buildings at 1806 Locust Street, where, "in addition to his other duties," he planned the new laboratories, a task in which he had acquired experience while at Wisconsin.

At Washington, work on various aspects of circulatory physiology was continued. During and after the last war, a series of researches on the mechanism and treatment of shock was carried out in Dr. Erlanger's laboratory; most of the work on shock published in the past few years carries a strangely familiar ring to those who assisted the professor about twenty-five years ago.

More than one person has had the experience of seeing his fairest flower born to blush unseen; Dr. Erlanger has said that his best series of papers is one which nobody ever reads. This is the series which describes his work on the mechanisms involved in the production of sounds in an artery undergoing decompression. While Dr. Erlanger's appraisal of the extent to which this masterly contribution is appreciated is not completely true, it is more nearly so than it should be. Few students of physiology here realize that they are probably the only organized group extant who have had presented to them a reasonable explanation of the manner of production of the sounds which doctors all over the world hear every day in their auscultatory determinations of blood pressure.

Dr. Erlanger could always find time from his research work to help students. Lectures were a responsibility not to be lightly discharged. Demonstrations were thoughtfully planned and skillfully executed; when they didn't work no effort was spared in finding out why, and the batting average was probably about as high as one will find anywhere. Two generations of students have learned the physiological method of sealing kymograph paper and have been initiated into the mysteries of the plethysmographic method of determining blood volume flow. And here is one bit of inside information that is being made public for the first time; Dr. Erlanger was just as much relieved as were you former students when, after great travail and
with infinite regret, he finally decided to discontinue the chronaxie experiment.

Dr. Erlanger believes that the province of a physiology course is to teach principles, that an understanding of such states as edema, cyanosis, or dyspnea follows of necessity an understanding of the normal functions of which these are but the deranged manifestations. It is true that many others hold the same views, but none has been more successful in applying them. His former students, now in many strange places, handling cases of nutritional edema, of cholera, of shock, of cardiac decompensation, of cord and brain injuries, think back to the physiological factors involved. These are trite remarks, they may sound almost sentimental, but they are true. Dr. Erlanger’s course, which teaches students the hard way, usually sticks to those who survive. In the words of St. Paul, “For everyone that useth milk is unskilful; for he is a babe. But strong meat belongeth to them that are of full age, even those who by reason of use have their senses exercised.”

Dr. Erlanger has the happy gift of choosing the apt phrase to express just what he wants to say, no more and no less. In his talks, as in his writings, one senses his reaching to pluck the one best expression from the rich store available. He is a man temperate in all things, except work; this quality is shown even in his profanity, as the pistol packing biochemist, Dr. Edgar West, now of the University of Oregon, can testify. Dr. West was indulging in pistol target practice one evening in the basement of the South Building, blissfully unaware that a particularly sensitive oscillographic recording was in progress. He relates how Dr. Erlanger emerged from what Life Magazine has called his “laboratory cubicle,” took a look around, uttered one completely adequate “Damn,” and returned to his work; target practice was postponed. On a few occasions, however, when some particularly evasive or inane answer was given to a searching question, he has been observed to indulge in what appeared to be eloquently silent profanity, in which probably more than one damn was uttered in spirit.

Dr. Erlanger was elected to the American Physiological Society in 1901, became a member of the Council in 1910, and with the exception of one year, 1924, remained on the Council in one capacity or another until 1929—as Treasurer, 1913-23, and as President in 1926, 1927, and 1928, serving as President of the Society through the XIIIth International Physiological Congress in Boston, 1929. As President of the Society he attended the XIIth Physiological Congress at Stockholm in 1926, and extended to the Congress the invitation of the Federation of American Societies for Experimental Biology to meet on this side of the water.

Dr. Erlanger has been awarded honorary degrees by the Universities of California, Wisconsin, Pennsylvania, and Michigan. He has been appointed
to various lectureships and elected to membership in American and European honorary societies.

The professor has long been an ardent mountain climber and has conquered many peaks in this country, in Canada, and in Europe. His minor sports are, or were, handball, baseball, and horseshoes.

On his seventieth birthday this year, a dinner in his honor was given by many of his friends; many others who would have liked to come were unable to be present. On this occasion he said, "The forty-three years I have devoted to research have, I feel, resulted in a most unsatisfactory yield, despite the fact that through all those years I have been exceedingly fortunate in having occupied posts that freed a reasonable fraction of time for research, and supplied all necessary facilities for research." The attitude which made, for him, any attainable yield still unsatisfactory has made possible the yield which the world of science has found more than satisfactory.

Harvey Lester White

Herbert S. Gasser came to the Washington University School of Medicine in the fall of 1916 to join the department of physiology at the invitation of its head, Professor Joseph Erlanger. Thus began the association of the two men—and Washington University medical alumni like to believe that it was a case of the right men in the right place—that led to the award of the 1944 Nobel prize in medicine.

Dr. Gasser came from the University of Wisconsin, where for a year he had been an instructor in the department of pharmacology. Wisconsin had been the scene of most of Gasser's life up to 1916. He was born (1888) in Platteville, a quiet, old town in the southwestern corner of the state, and in deference to his father's wishes he attended the state normal school there before he went to the state university at Madison. He received the bachelor's degree at the university in 1910, and the master's degree in 1911. He remained at the university for the next three years in the department of physiology. When, after two years in the medical school at Johns Hopkins University, he returned for what proved to be his final year at Wisconsin, he joined the department of pharmacology under the leadership of Professor Arthur S. Loewenhart. Professor Loewenhart's flair for able young scientific workers and his genius for friendship with them undoubtedly played a part in this shift from physiology to pharmacology, which paved the way for Gasser's later change to pharmacology at Washington University.

At the end of his two years at Johns Hopkins (1915), Dr. Gasser received the degree of doctor of medicine, but it may be said of him, as he
said of Professor Loevenhart, that his clinical experience intensified rather than diminished his interest in the fundamental science that had first attracted him. The work Gasser did in Professor Howell's department while he was a medical student at "the Hopkins," formed the basis of a 1917 publication on prothrombin and thrombin in blood. From Wisconsin he had published, jointly with Professor Loevenhart, on the stimulation of the medullary centers by oxygen-want, and, with Professor Walter J. Meek of the department of physiology, on the mechanism of cardiac acceleration in exercise. Much of this early work led more or less directly into the work on shock that was an important activity of the Washington University department of physiology during the five years that Dr. Gasser was a member of it. Dr. Erlanger as well as Dr. Gasser had close associations with the University of Wisconsin, and there were many joint publications from the two universities at this period.

In 1918, Dr. Gasser became pharmacologist in the Chemical Warfare Service, and was granted leave of absence from the medical school for the period of the war. Fortunately the ending of the war made unnecessary any protracted absence from the school on this government service. A little later, when there was an interregnum in the department of pharmacology (between the terms of Professor Dennis Jackson and Professor E. K. Marshall), he was appointed to give the instruction in pharmacology to the medical students to fill the gap.

How he performed this task may be inferred from the fact that in 1921, when the chair of pharmacology again became vacant, he was appointed to fill it. Two years later, he was given a long leave of absence, which he devoted to study and observation abroad, chiefly in England. The contacts which he made there with A. V. Hill, with H. H. Dale, with L. Lapique and with others proved stimulating, but the enthusiastic reception given him by these foreign scientists became alarming to his colleagues at home when it seemed to endanger his return to Washington University. However, the application of the cathode ray oscillograph technique to nerve had been begun before he left St. Louis and to it, after the excitement and temptations of work in other laboratories, he eagerly returned in 1925.

Half a dozen papers dealing with aspects of the physiology and pharmacology of skeletal and smooth muscle resulted from his two-year stay abroad. His active interest in muscle did not end with the publication of these papers; as late as 1930 he published a review on the contractures of skeletal muscle. During the decade of his tenure of the Washington University professorship of pharmacology, however, almost all of his research consisted of investigations into the mechanism of nerve function with the aid of the cathode ray oscillograph. This work is summarized briefly elsewhere in this number of the Quarterly.
To Dr. Gasser an integral aspect of research is discussion, and in those days when he had the right partner, discussion seemed never to weary him. Many were the hours spent over endless cups of coffee in the physiology seminar room, in the cafeteria (then run on a leisurely schedule in the medical school without a closing hour for lunch), in friends’ houses or in neighboring or downtown restaurants; and many were the diagrams drawn on odd envelopes, on cafeteria checks, on paper napkins, or even on restaurant tablecloths. His indifference to time and his ability to make his colleagues ignore it not infrequently prolonged the Monday afternoon physiological seminars to an hour that tried the patience of the colleagues’ families waiting at home for dinner. But there was a limit even to Gasser’s zeal for discussion: during the era when lactic acid was regarded as the key to muscular contraction he announced privately, if not publicly, that he was too fed up with lactic acid to attend one more session of a certain group in the school given to discussion of its metabolism.

When in 1931 he became professor of physiology at Cornell University Medical College, he carried with him to New York the interests and habits he had developed in St. Louis. Experiments on nerve function continued at the same high rate and standard, and discussions around the laboratory lunch table there were only slightly less heated than they had been here. Experiments and discussions may have been less frequent after 1935, when he became director of the Rockefeller Institute for Medical Research, but they were no less excellent. More recently, the war has added to his duties as director of the Institute a large measure of activity and responsibility in the National Defense Research Committee, and this has unfortunately enforced cessation of his publications on nerve physiology.

It thus happens that a large if not the major part of his work on nerve, the bulk of his research to date, was conceived and carried out at Washington University School of Medicine. For this reason, as well as for other more personal ones, Dr. Gasser, in spite of his many years away from St. Louis, feels a very special attachment to the school, an attachment which is reciprocated by those fortunate enough to have been associated with him at Washington University.

_Helen Tredway Graham_
The Problem of the Neuropsychiatric Soldier
An Orientation for Army Officers

LOUIS L. TUREEN, MAJOR, MEDICAL CORPS

The problem of psychiatric disorders in soldiers is causing concern among line officers and personnel officers who must deal with conservation of manpower in this theatre. Since no adequate solution has been presented as yet, a critical attitude toward medical officers, particularly psychiatrists, has arisen. To clarify the situation, it is pertinent to ask, and attempt to answer the following questions: What is psychoneurosis? Why is the incidence so high? How can the incidence be lowered? What disposition shall be made of psychoneurotic patients?

What Is Psychoneurosis?

Every good soldier goes into battle with two sets of thoughts and wishes. As a soldier, he decides to do his duty toward winning a victory for his side, even at the price of wounds or death. On the other hand, every one has the need for preserving his own life, and this thought is therefore present at all times, even if the soldier is not aware of it. Under normal conditions, and in most combat situations, this conflict is settled by the soldier’s ability to force out of the picture his own desire for self-preservation. The factors necessary to do this are, character of the soldier, morale, both of the individual and the group, and military training and conditioning. When conditions are such that the need for self-preservation can no longer be controlled, the now familiar symptoms of psychoneurosis develop. Psychoneurosis is, therefore, a disease characterized by mental and physical reactions in an individual as the result of an unconscious conflict which cannot be settled except by sickness. In those psychoneuroses not due to battle, a conflict exists which is due to social demands that he submit to discipline and perform his duty, and his own need to be free from restraint and discipline. In the malingerer there is only one desire present, viz., to save his own skin, while there is no sense of duty. Therefore, there is no conflict, and no psychoneurosis. The psychotic is a man whom most people recognize as insane. He has no understanding or interest in his surroundings. There is no difficulty in recognizing this relatively small group.

Character. Obviously if the soldier was a repeated failure in civilian life, in securing and holding a job, in adjusting well to family or marriage, in his need for alcohol, in responding to difficult situations by becoming
sick, he is almost certain to fail as a soldier. The more serious cases fail shortly after induction, while still in training camps. Since there are all degrees of character defects, some men who can make an adjustment to civilian society, nevertheless fail to adapt to the rigidity of army life.

As it becomes harder, progressively more fall out. Since combat is a supreme type of adaptation demanded of soldiers, many make their first failures on the battle field. Many psychiatric battle casualties give a history of either personal or family “nervousness.” This type of soldier is among the first to crack in battle.

Morale. Many factors contribute to the maintenance of a good morale. Good leadership and confidence in the command is of primary importance. Well disciplined troops, who take pride in themselves, their organization, and its performance, always have good morale. “Espirit de corps” and the ability to get along in the organization are necessary. Success or failure in a campaign exerts tremendous influence. A fact, apparently not given sufficient emphasis, is a motive or a cause for fighting. Questioning of patients indicate that too many may be poorly oriented as to the purpose of the war and the reason for fighting. Unless a man believes his cause is worth fighting for, he doesn’t believe it is worth dying for.

Military Training and Conditioning. This is a period of conditioning, not only for military tactics, but for personal adaptation of regimentation and discipline. At this time the sense of obligation and duty at the expense of personal sacrifice is inculcated. Inadequate soldiers are supposed to be screened out before they are assigned to foreign duty, provided the training period is of sufficient length. Too many soldiers who develop mental symptoms come to this theater within less than six months after induction. Battle training, by properly preparing soldiers for combat situations, make them more alert and conditioned to the realities of war. Since battle experience is also training, the difference between “green” and seasoned troops is understandable.

These three factors are constantly seen at play in the development of psychiatric battle casualties. Fear of injury or death occurs in every soldier. When confronted with the battle situation, the well-intergrated, well-disciplined, well-trained soldier automatically considers the task at hand paramount regardless of danger. Nevertheless, every soldier is in unconscious conflict between the fear of failing to do his duty, and the fear of being wounded or killed. The inability to hold this conflict in check results in a loss of self-control, and the soldier’s action become dominated by unconscious forces, which revert in a series of mental and bodily symp-
toms rendering the soldier useless on the battle field. He may tremble and cry; freeze in a fox-hole; run wild, either away from or in the direction of the enemy; or fall into a dead faint. These symptoms, wholly outside the soldier’s control, render him unaware of cowardice on his part. Moreover, his action may be so rash and irresponsible that they often result in his being killed, or occasionally decorated for unusual bravery. Psychoneurosis is, therefore, not simply running away from battle.

Psychoneurosis is not a static disease; it is a constant state of change, and unless treated, becomes progressively worse. This is particularly true of psychoneurosis precipitated by battle. At its onset on the battlefield it is a reversible condition, capable with 3 to 5 days of sufficient recovery to permit 60% to 80% of the patients to return to the front line. A short period of rest in the battalion aid station, at the kitchen, at the collection or clearing station, with sedation, hot food, warmth restores a great many. At the evacuation hospital, these aids, plus treatment by a competent psychiatrist, produces remarkable results. Having been removed from the scene of immediate danger, given a “breathing spell,” the emotional reactions improve somewhat, but the conflict between guilt and relief becomes intense. The feeling of having “run out on his buddies” is evident in practically every case. The disease consists of a feeling of anxiety which has not yet been expressed in unchangeable bodily symptoms. This is the time when the psychiatrist can, by sheer force of his own personality, and the virtually hypnotic hold he has over the patient, verbally administer a “kick in the pants,” make the patient return to duty, with minimal or no symptoms, and accept his duty and honor, at the expense of his life and limb if need be. It is only from the evacuation hospital area or forward of this that a psychiatrist can successfully restore a battle psychoneurotic to combat duty. From any hospital much further to the rear, this is impossible.

Having passed five days away from the front, in the security of a hospital, the disease is transformed from one with surface emotions to one with physical symptoms. It becomes difficult if not impossible to make the patient recall his guilt feelings; now he has “converted” the emotions of his conflict to illness which represents a visible reason for not returning to combat. The sickness now protects the patient, not only from danger, but also from any realization of his own guilty feelings. The presence of headaches, or backaches, or dizzy spells, are real to him. “Get me well, then I’ll go back to combat.” But psychological processes beyond his control resist all efforts to get him well. He is completely unaware of the reason for this. Instead, he develops new symptoms: tremor, sleeplessness, battle dreams, and even hallucinations. Uncontrollable temper, lack of response to authority and discipline, become real and unmanageable conditions; the
soldier is too sick for combat, and becomes totally lost for such duty. No patient should be sent to the rear from the evacuation hospital area if he is to be reconstructed for combat.

Patients in base hospitals can be quickly improved and restored to duty in a non-combat zone, provided hospitalization is brief, transfer from one hospital to another is minimized or avoided altogether, assignment to duty from a replacement depot occurs within 30 days after he reaches the depot, and the assignment is one which his training, intelligence, and temperament (in view of the illness) can handle. Excessive hospitalization, or prolonged waiting in a replacement depot produces new symptoms, undoing previous medical efforts. An assignment which the soldier cannot handle, causes discouragement, an increase in the conflict because of having failed in his duty. There is a psychological need for remaining sick in order to justify the failure; as a result the patient must be evacuated to the Zone of the Interior. From evidence available at present, evacuation of such a patient to the United States, in many cases not only does not get him well; it makes him worse. There is an unconscious necessity to continue sick, which in a logical process, results in his discharge from the Army, to Veterans' facilities, to pension rolls, to a condition of chronic invalidism. With any effort on the patient's part to cure himself, his old guilty feelings come to the fore and he becomes more sick.

Why Is the Incidence So High?

In discussing this question, psychiatric cases must be divided into combat-incurred cases (battle-casualties), and non-combat incurred cases (disease).

**Personality Reactions Due to Combat Situations.** This has already been discussed. It is sufficient to state here that any person, given sufficient stimulus, can suffer a mental breakdown in battle. The more adequate soldier, however, is readily influenced, in the heat of battle, by occurrences about him. There is present in each, the buried conflict about what he must do, and what he would like to do. In the heat of combat, there is no time to think. Reactions are fairly automatic and spontaneous. A good command and a good control of the men can maintain the delicate balance of a soldier's conduct. Repeated frustration in advancing on an objective, loss of a tactical situation in the vicinity, death of a commanding officer or of a buddy, the sudden acquisition of responsibility, may produce panic in any soldier, which quickly becomes contagious, spreads through a company, and destroys the controls which heretofore kept the soldier in check.

**Exhaustion.** Lack of food and sleep, excessive cold, repeated discouragement, result in physical and mental exhaustion. Prompt rest, sedation, food, warmth, sleep, are necessary. But this should be only for a few days, with prompt return to the front. Absence from the line for more than a
few days, or mere evacuation of such a patient to a base hospital, results in the development of psychoneurotic symptoms indistinguishable from those already described. This occurs in soldiers who are normally well integrated, who have never before shown nervous symptoms, and who, if returned to battle, will continue to function well. However, troops exposed to excessive fatigue over long periods will tend to have a high rate of psychiatric battle casualties, with a consequent loss of effectiveness.

Blast Concussion. Cerebral concussion does not produce any of the classical forms of battle neurosis. Linn and Stein (1) suggest that trauma of concussion, severe enough to perforate the tympanic membrane, may inhibit the precipitation of psychic symptoms. The transient amnesia of head trauma may actually serve to protect the soldier from emotional reactions to catastrophic events. Patients who develop nervous reactions after a nearby exploding shell knocks them down or out, as a rule, do not suffer from damage to the brain. Neurological examinations on such cases are negative, or, at least, reflex changes are minimal (2). The psychological reaction is a natural one to near escape from death, and differs from that seen in post-traumatic (cerebral) neuroses encountered in civilian and military experience. Prompt sedation, rest, feeding, and treatment by a psychiatrist, results in the recovery of a majority of such patients. As with the exhaustion cases, if treatment is neglected, or delayed, or if the soldier is evacuated out of the combat zone, or if other unfavorable psychological factors are present, chronic psychoneurosis will develop in previously mentally healthy soldiers.

Some soldiers who become psychiatric battle casualties are not psychologically able to face battle. This is the group, which, even if treated at the front, will nevertheless develop chronic symptoms. The remainder are well balanced, normal, people, who could be salvaged for combat duty. They are worth all medical efforts. Once a patient develops chronic psychoneurosis, he cannot function in combat. This was learned by the British, and has also been true with American soldiers who were returned to combat ill-advisedly, and who suffered repeated failures. Return of these soldiers to the front lines results in serious interference with the tactical effort and lowers the morale of other troops, so that tactical commanders do not want these men.

Non-combat Incurred Cases. Patients who enter hospitals for battle wounds, accidental injuries, operations, or other medical conditions, and who, on admission, do not present any mental complaints, by the time they are ready for convalescence, have developed mental symptoms in some cases. Such patients may become lost to combat duty, even though the physical condition is cured. The longer a patient is hospitalized, and the
fact that he had previously been in combat, are two most important fac-
tors in transforming latent symptoms into active ones. The rate of mental
reactions in elective operative cases (hernia, hemorrhoids, etc.) is highest.
Bad knees, back aches, stomach complaints, headaches, and other chronically
persistent symptoms, become very difficult matters to handle.

_Psychopaths_ include people with constitutionally inadequate personalites,
emotional instability, criminal tendencies, alcoholism, and homosexuality.
These soldiers should not have come on foreign duty. It is a frequent prac-
tice for organizations in training camps to dispose of their least adequate
soldiers as replacements for other organizations. Stockades have been emp-
tied to supply such replacements. If these men are no good for military
service in the states, they are a positive menace overseas. They constitute
a serious problem, and contain the group of malingerers, who come more
to the attention of the critical line officer than do the real psychoneurotics.
Such men should be separated from the service promptly and expeditiously,
under the provisions of AR 615-360, Section VIII.

Malingering, which occurs primarily in this group, represents a conscious
and deliberate attempt to evade duty, by simulating sickness, by self-
mutilation, and by shirking responsibility. Naturally enough, the symp-
toms of acute battle anxiety cannot be simulated by the malingerers; the
combination of physiologic and psychologic reactions occurring in the
former cannot be consciously reproduced. Instead, in battle, the malingerer
gets “lost,” lags behind, “accidentally” shoots off a finger, deserts (4).
Most psychopaths, however, enter the hospital for reasons other than ma-
lingering, which, in the opinion of the majority of trained observers, is
relatively uncommon in the theater of operations.

_Psychotics_. Battle conditions do not produce true insanity. Those cases
which appear, develop generally in non-combat units. Longer training in
camps in the States could have eliminated many of these, particularly
from groups which go on foreign duty within six months after induction.
These patients should receive a medical discharge.

**How Can the Incidence Be Lowered?**

Knowledge builds morale; morale prevents psychoneurosis. An earnest
effort to educate troops to the significance of the war, will go far toward
engendering a willingness to die if necessary. This should be begun in
training camps, continued during the training period overseas. Training
films, lectures, discussion groups led by adequately prepared moderators,
are necessary. If the soldier feels the urge to participate in the war, rather
than a compulsion by authority to do so, he is all the better prepared men-
tally to receive the conditions he will encounter.

In the light of experience that civilian psychoneurotics make poor or
ineffective combat troops, it is wise to reclassify them to a non-combat assignment at the outset; this will prevent not only their own breakdown, but also contagion among other groups at the front.

Treatment of psychiatric battle casualties in the combat zone, by a competent psychiatrist, for at least four days, is necessary. Enough psychiatrists must be assigned to forward areas in order to begin therapy within 24 hours. Patients should be evacuated only when competent opinion indicates that they are no longer combat soldiers. A psychiatric evacuation hospital, semi-mobile, and of the same echelon as the 750 bed evacuation hospital, would be ideal. During the latter half of the Tunisian campaign, and in the succeeding campaigns of the Mediterranean Theater, this principle has been followed. Psychiatrists are functioning in evacuation hospitals, and have been assigned to each infantry division in combat.

Hospitalization periods should be as brief as possible. Elective operations should be postponed, unless reclassification is inevitable (3). Even then it is wise to consider whether the patient could function in limited assignment, without operation.

Discipline of soldier patients must continue in hospitals through the efforts and attitudes of medical officers and nurses. As soon as the patient's physical condition permits, limited military training should start. Calisthenics, hikes, physical activity, training films, lectures, demonstrations of weapons, both our own and the enemy's, are necessary. Patients must retain at all times the knowledge and the ideal that they are soldiers first.

If practical, repeated transfer of patients from one hospital to another should be avoided. This disturbs the establishment of adequate rapport between medical officer and patient, interfering with maintenance of morale and discipline. Where it can be done, all Z. I. cases should be segregated from the others, and certainly all psychiatric cases should be kept apart from the others.

What Disposition Shall Be Made of Psychoneurotic Patients?

Chronic psychoneurotics must usually become at least limited assignment soldiers. Whether they are assignable depends upon the demands made upon the replacement depot. Soldiers with special skills, such as office workers, mechanics, cooks, are readily placed. Men without skills, namely, laborers, farmers, etc., whose military experience has been that of a gunner, rifleman, scout, and the like, cannot be assigned. They make poor, or even dangerous, guards, docks workers, or truck drivers, because of the nervous condition which caused reassignment. Thus they constitute a bottleneck at the replacement depot. Such men, who cannot be assigned in this theater within 30 days after discharge from the hospital, should be
evacuated to the Zone of the Interior, either for limited assignment there, or, if none is available, for discharge from the service. If their physical and mental condition is above the minimal standard for induction, perhaps the latter should be raised.

From the medical standpoint, it is preferable to discharge patients from the hospital as soon as maximum benefit of hospitalization has been attained. Because medical officers are aware of the replacement depot bottleneck, patients who might otherwise be discharged to the replacement depot for assignment, are instead put in class “C” for evacuation to the Zone of the Interior. The long waiting period in the hospital before evacuation, the feeling of frustration in having failed to keep going, make a great many patients more sick, after the initial improvement. Thus, the medical officer, because of practical considerations, must make a recommendation which jeopardizes the patient’s chances of rehabilitation.

SUMMARY:

The problem of the neuropsychiatric soldier assumes magnitude because we, as a whole, have not been adequately imbued with the ideal of self-sacrifice for the common good. Too many soldiers (and civilians) are concerned with personal safety, gain, prestige. Reorientation in this matter is necessary.

The problem cannot be disposed of by denying its existence. Appropriate measures can be taken by all branches of the service, once its full significance is understood.

Medical officers, particularly psychiatrists, have been accused of creating psychiatric patients, whereas in fact, they have recognized a disease which already existed. Commanders and line officers have called the attention of the medical profession to groups of cases, which, in the aggregate, might jeopardize our man power. Psychiatrists, have attempted to deal realistically with the problem, in the face of conflicting demands placed upon them.

BIBLIOGRAPHY

1. Linn, L., & Stein, M. H., A Psychiatric of Blast Injuries of the Ear, to be published.
News from the Medical School and Affiliated Hospitals

The following gifts to the School of Medicine were announced between October 4 and November 1, 1944: from Mr. and Mrs. John E. Mitchell, $5,000 to the Department of Internal Medicine for research; from an anonymous donor, $5,000; from Mr. Frederic Penn, $1,000 to Dr. Kountz in the Department of Internal Medicine for his study of degenerative diseases; from Miss Dorothy Hansman and Mr. R. H. Bennett, $50 to be added to the Philipp Hunkel Memorial Research Fund in the Department of Internal Medicine; from the William S. Merrell Company, $600 in continued support of research in the Department of Obstetrics and Gynecology; from Dr. Harry Field, $50 to Dr. Cyril MacBryde for research in the Department of Internal Medicine; from Aloe Optical Company, $1,500, and from the American Optical Company, $2,500 for research to determine the possibility of improving vision in myopic patients by exercises; from the Wilson Company of Chicago, $1,280 in continued support of investigations in hematology under the direction of Dr. Carl Moore in the Department of Internal Medicine.

New appointments to the staff include: Dr. Edward L. Burns as visiting associate professor of Pathology (from November 18 to December 12, 1944); Dr. Barnett M. Levy as associate in Pathology; Dr. E. L. Tatum as research associate in Anatomy; Dr. Martin Silberberg as instructor in Pathology; Dr. Daniel W. Badal as instructor in Neuropsychiatry; Dr. Louis Gottschalk as assistant in Neuropsychiatry; Dr. Peter Thomas as assistant in Pathology and in Radiology; Dr. Karl R. Schlademan as assistant in Pathology; Drs. Yasuyuki Fukushima, Joseph C. Peden, and Alfred M. Decker, Jr., as assistants in Surgery; Dr. Philip Shahan as assistant in Ophthalmology; Dr. William M. Mundy as research assistant in Medicine; Dr. Gerardo Pena-Astudillo as fellow in Obstetrics and Gynecology; Dr. Alfonse Gaitan y Nieto as Kellogg fellow in Ophthalmology; Dr. Osler Abbott as fellow in Chest Surgery; Dr. Ruy Lauer Simoes as fellow in Histology.

The following have resigned from the staff: Dr. B. K. Shahrokh, instructor in Bacteriology; Dr. Walter C. Herold, assistant in Clinical Dermatology; Dr. W. W. Pettus, visiting fellow in Chest Surgery.
Dr. Theo. Walsh was in New York for three weeks studying with Julius Lempert on the fenestration operation of otosclerosis.

Dr. W. Barry Wood, Jr., Busch professor of Medicine, in connection with his duties as consultant in medicine to the Secretary of War spent two weeks as consultant in the 8th Service Command and one week at a general conference of consultants at White Sulphur Springs.

Dr. E. V. Cowdry, professor of Anatomy, was recently in Washington to testify before a committee of the Senate on the activities of the Federal Government in the field of cancer research.

Dr. Robert A. Moore spent three weeks in Washington, D. C. at the Army Medical Museum as Civilian Resident Consultant.

Dr. William O. Russell, assistant Professor of Pathology, recently resigned and will be in charge of the Department of Pathology at Cottage Hospital, Santa Barbara, California.

Dr. Evarts A. Graham, Bixby professor of Surgery, is a member of the committee of the American Medical Association to study and plan for postgraduate medical education which will be made available to the medical officers now in the armed forces.

At the Central Society for Clinical Research Meeting in Chicago November 3 and 4 Dr. Carl Harford, assistant professor of Medicine, was elected secretary to succeed Dr. Carl V. Moore who has served in this capacity for five years. Papers by members of the staff included Dr. Leo Wade, Dr. A. Goldman, Dr. Keith S. Wilson, Dr. H. L. Alexander, and Dr. Edward Massie.

Dr. Edward L. Burns was visiting associate professor of Pathology and visiting pathologist at Barnes for three weeks in November and December.

Dr. Lawrence Post presided at the meeting of the American Academy of Otolaryngology and Ophthalmology held in Chicago October 8-12, 1944. A feature of the Academy meeting was a symposium on "Head and Face Pain" by Drs. Walter I. Lillie, Philadelphia; Arthur W. Proetz, St. Louis; Bayard T. Horton, Rochester; and Lewis J. Pollack, Chicago.

Dr. Lawrence Post conducted clinics recently at the O'Reilly General Hospital in Springfield, Missouri.
At the Pacific Coast Obstetrics and Gynecological Society Meeting held November 8 Dr. Willard Allen presented a paper entitled “Hormonal Control of Pregnancy.” On the day preceding the meeting Dr. Allen discussed “Functional Uterine Bleeding” at the University of California Hospital.

The Academy of Pediatrics held meetings in St. Louis on November 9, 10, and 11. The Department of Pediatrics was responsible for two clinic sessions—one held at St. Louis Children’s Hospital with sections in the morning and afternoon, presided over by Dr. Alexis F. Hartmann; and one session held at St. Louis City Hospital, presided over by Dr. Gilbert B. Forbes. During the meetings Dr. Hartmann gave three papers: (1) Parenteral Administration of Amino Acids, which was part of a symposium on fluid administration; (2) Acute Salicylate Intoxication, which was part of a symposium on rheumatic fever; (3) Purulent Meningitis: Diagnosis, Management, and Results.

Washington University Medical School was well represented at the Southern Medical Association meetings held November 13-16, 1944. Faculty members as well as alumni discussed various topics and presented scientific exhibits. Dr. W. Barry Wood, Jr. discussed the subject “Use of Penicillin in the Treatment of Bacterial Infection.” Dr. Edwin F. Gildea presented the paper “Psychosomatic Medicine.” Drs. Edward H. Reinhard, Carl V. Moore, and Sherwood Moore discussed “Radioactive Phosphorus.” Drs. Harry L. Alexander, Robert A. Moore, William H. Olmsted, Alfred Goldman, and Harold Scheff presented a Clinicopathologic Conference. Dr. Arthur M. Alden, associate professor of Clinical Otolaryngology, gave a lecture with lantern slides on “Neck Infections of Dental Origin.” Dr. F. H. Ewerhardt presented “Practical Demonstrations in Therapeutic Exercises.” Dr. George Saslow discussed the subject “Psychological Evaluation of Pain.” Dean Phillip A. Shaffer was one of the speakers who participated in the “Symposium on Essentials of Medical Education.” Dr. H. Tsuchiya lectured on the subject “Survival Time of Trophozoites of Endamoeba Histolytica and Its Practical Significance in Diagnosis.” Miss Marion A. Murphy, librarian, discussed “The Effects of the War on the Medical School Library.” Drs. Mildred Trotter, Virginia S. Lanier, Gordon S. Letterman, and Howard E. McKnight presented an exhibit on “Continuous Caudal Analgesia; Pertinent Anatomical Features” for which they were awarded the first prize. (They had also received honorable mention for this same exhibit at the meeting of the American Medical Association in Chicago in June). The work upon which the ex-
hibit was based was supported in part by a grant from the U. S. Public Health Service. Dr. Willard Allen, professor of Obstetrics and Gynecology, discussed "Clinical Use of the Sex Hormones." Drs. Cyril MacBryde, Harold K. Roberts, and Robert S. Reiss presented an exhibit concerning "Modified Protamine Zinc Insulin." Dr. Wm. B. Kountz and Lilli Hoftatter presented an exhibit concerning "Degenerative Changes in Aged Individuals."

On October 27 Dr. Ernst Sachs took part in one of the War Time Graduate Medical Meetings held at the O'Reilly General Hospital, Springfield, Missouri discussing neurosurgical cases. On November 2 Dr. Sachs read a paper on "Residuals of Neurosurgical Disorders" as a part of the Postgraduate Assembly of the Institute of Medicine of Chicago, held in Chicago November 1 and 2.

Dr. W. Barry Wood, Jr. is serving as a member of the Council on Chemistry and Pharmacy of the American Medical Association.

At the ninety-sixth annual meeting of the Medical Society of Virginia, John Marshall Hotel, Richmond, Virginia, October 23-25, Dr. Alexis F. Hartmann spoke on "Further Clinical Studies in Disturbances of Acid Base Balance."

The following members of the Junior Class were elected to Alpha Omega Alpha: Ralph Berg, Jr., John C. Herweg, Louis O. Lambiotte, and Leonard Walter Ritzmann.

Dr. Harry L. Alexander spoke on "Primary Atypical Pneumonia" at the twenty-ninth annual International Medical Assembly of the Inter-State Postgraduate Medical Association of North America in Chicago October 17-20.

Drs. Mary Johnson and Harry L. Alexander presented a paper on the "Measurement of Circulating Ragweed Antigen" at the American Academy of Allergy meeting in New York in December.

For the past two and one-half years Dr. Robert Elman has been on the subcommittee on Burns and Infected Wounds of the Committee of Surgery and for the past year and one-half on the Committee for Convalescence and Rehabilitation representing surgery. Both of these committees are part of the National Research Council. Since early 1944 he
has served on the National Advisory Council, of the Office of Vocational Rehabilitation, representing surgery. This agency was established by law to supervise a state administered program for the care of disabled adults who are medically indigent. This care includes full diagnosis and treatment including medical, surgical, and psychiatric, as well as vocational procedures. The plan for the state of Missouri has been set up under the guidance of a State Professional Advisory Council which is composed of members of the Missouri Medical Association and specialists in all the branches involved in rehabilitation. Dr. Elman is chairman of this committee and other members of the Washington University faculty on the committee are Dr. Edwin Gildea, Dr. Frank Bradley, and Dr. James Costen.

Dr. Louis A. Julianelle, former associate professor of applied bacteriology and immunology in the School of Medicine, died August 12 in New York. He had been chairman of the Division of Infectious Diseases of the Public Health Research Institute of the City of New York, Inc., since 1942.
Publications by the Staff of the School of Medicine, Washington University

September - November, 1944

Alexander, H. L., Massie, E., Smith, J. R., et al. Arteriosclerosis of the aorta and coronary arteries, moderate; and of the splenic, superior mesenteric and renal arteries, slight; narrowing of the ostia of the right coronary artery and the celiac axis artery; arteriolar nephrosclerosis, slight; multiple acute ulcers of the first part of the duodenum; perforation of an ulcer into the peritoneal cavity; localized peritonitis in the region of the perforated ulcer. (Barnes case 52) J. Missouri M. A., 41: 187-190, Sept., 1944.


Alexander, H. L., Bulger, H. A., Smith, J. R., et al. Undifferentiated carcinoma involving the upper lobe of the right lung, pleura of both lungs, mediastinal tissues and the mediastinal lymph nodes; compression of the superior vena cava and the azygos vein; edema of the arms and legs; hydrothorax, right (800 cc); columnar hyperplasia of islets of Langerhans; glycogen in the renal tubules (history of diabetes mellitus, seventeen years). (Barnes case 54) J. Missouri M. A., 41: 209-212, Oct., 1944.


Wood, W. B., Jr., Taussig, B., Hartford, C. G., et al. Chronic endocarditis of the mitral valve, moderate; of the aortic and tricuspid valves, slight; subacute bacterial endocarditis (bacterial free type) of the mitral, aortic and tricuspid valves; hemorrhage and encephalomalacia of the septum pellucidum, the corpus callosum and of the right temporal lobe of the brain; hemorrhage into all ventricles of the brain; subarachnoidal hemorrhage, moderate; mycotic aneurysm of a small artery of the meninges; subacute diffuse glomerulonephritis; partially healed infarcts of the spleen and kidneys. (Barnes case 56) J. Missouri M. A., 41: 224-227, Nov., 1944.

### First Year Class—October, 1944

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### Third Year Class—October, 1944

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<td>Strode, Walter S. (N)</td>
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### ALABAMA

- Dorrough, Bernell F. (A)  
- Folsom, James C. (A)  
- Forman, Carolyn W. (C)  
- Richardson, Glenn B. (N)  
- Scott, Walter F. (A)  

**University of Alabama**

### CONNECTICUT

- Smith, Theodore J. (A)  
- Niedermyer, Edward L. (A)

**University of South Dakota**

### ILLINOIS

- Jackson, James O. (A)  
- Jones, Ralph H. (A)  
- Leeper, Claude K. (A)  
- Martt, Jack M. (A)  
- McGrath, John M. (A)  
- Moffett, James B. (A)  
- Roberts, Stanley (A)  
- Seabaugh, William O. (A)  
- Simpson, William L. (C)  
- Wieman, Harry K. (N)  
- Wiggins, George (A)

**University of Missouri**

### MISSOURI

- Addieville  
- Kansas City  
- Marshall  
- St. Louis  
- Clayton  
- Nevada  
- Columbia  
- Gallatin  
- St. Louis  
- Webster Groves  
- De Soto  
- West Plains  

**University of Chicago**

### NORTH CAROLINA

- Kendrick, John F. (A)  
- Spain, Robert S. (A)  
- Warshauser, Albert D. (A)  

**University of North Carolina**

### SOUTH DAKOTA

- Johnson, Melvin J. (C)  
- Petrakis, Nicholas (N)  
- Roslyn  
- Sioux Falls  

**University of South Dakota**

### WEST VIRGINIA

- Weiss, William H. (N)  
- Fairmont  

**West Virginia University**
Alumni News

1895
Sandor Horwitz, with the department of public health of the state of Illinois, has been doing some commendable work in this field. Through Dr. Horwitz's efforts the job of eliminating venereal disease in the district around Peoria, Illinois has been undertaken with satisfactory results to date. Also in the interest of public health Dr. Horwitz has long been an advocate of physical examinations for pre-school children. He states that if every pre-school child was examined any slight defects, such as in the eyes or ears, would be discovered before the child started school and could be corrected.

1899

F. G. Abeken, 5319a Broadway, St. Louis, Missouri—Class Secretary.

In a recent visit to the Alumni Office Dr. Abeken revealed that since 1903 he has been a commander in the Navy with the title of Medical Inspector. Before that time he served an internship and residency at St. Louis City Hospital and was later in charge of patients at the Hospital for the Chronic Insane on Arsenal Street in St. Louis. Commander Abeken, as secretary of his class, would enjoy receiving any correspondence from classmates. He recently received a letter from Joseph Pettit who is practicing industrial medicine.

1903

Albert H. Myerick's new address is 606 N. Adams Street, Mt. Pleasant, Iowa.

1905

Louis K. Guggenheim has recently moved to 321 Glenroy Avenue, Los Angeles 24, California.

1908

Halbert R. Hill resides at 4034 Colgate, Houston 12, Texas.

Com. Leonard H. Denny is stationed at the Armed Guard School, Norfolk, Virginia.

1910

Elwyn D. Price is a resident of the Lone Star State. His address is 2729 Porter Street, El Paso, Texas.

1913

Leo J. Kilian is now in Wayn, Neb.

1917

Richard P. Dorris has notified us that his address is now 1104 Vineyard Square, Jefferson City, Missouri.

C. J. Brown is now a captain in the Naval medical corps. His address is Captain C. J. Brown (M.C.) U.S.N., Navy No. 100, c/o Fleet Post Office, New York, N. Y.

1918

James R. Dean is now at Prisoner of War Camp, Station Hospital, Jerome, Ark.

H. W. Maxey's address is 626 Jefferson Street, Jefferson City, Missouri.

Glover Copher presided at the Session on Surgery at the Southern Medical Association meeting November 13, 1944. The convention was held in St. Louis, Missouri, November 13-16, 1944.

1920

Captain Frederick A. Jostes is now at the U. S. Naval Hospital, St. Al-
bans, Long Island, New York. Captain Jostes discussed “Physical Medicine: Its Importance in Any Rehabilitation Program” at the Southern Medical Association meeting, November 15, 1944. He has recently returned from the South Pacific after an absence of twenty-seven months. For his activities there he received a special commendation from Admiral Ernest J. King.

Col. Harvey L. White is at the Station Hospital, Jefferson Barracks, Missouri.

1922
Rogers Deakin presented a lantern slide discussion entitled “Chronic Urethritis in Men and Women” at the meeting of the Southern Medical Association on November 14, 1944.

Green K. Dickson’s address is 2124 Carey Place, Oklahoma City, Okla.

1923
Lt. Com. R. W. Stuebner’s address is Fleet Post Office, San Francisco, California.

Glenn C. Neil can be reached at 129 Washington, Garfield, Utah.

1924
Louis H. Jorstad discussed “Treatment of Regional Lymphatics in Intra-Oral Malignancy” at the Southern Medical Association Meeting in November.

John A. Wood is now at 729 Verona, Mission Beach, San Diego, California.

Lt. Com. Dwight J. Wharton is at the U. S. Naval Hospital, Great Lakes, Illinois.

1925
Melvin A. Roblee and Sherwood Moore ’05 presented a lantern slide discussion entitled “Lipiodol Pulmonay Emboli Following Hysterosalpingography” during the general clinical sessions of the Southern Medical Association meeting November 14, 1944.

William E. Hart is at Patterson Field, Fairfield, Ohio.

Lt. Com. Hugo Otto Wagner is with a fleet hospital in the South Pacific.

Commander W. G. Hamm is at the U. S. Naval Hospital, St. Albans, L. I., N. Y.

1925
Lt. Col. F. B. Zener is overseas with the medical corps.

1926
Commander Willard B. Bartlett’s address is U. S. Naval Hospital, Norman, Oklahoma.

Lt. Com. Charles George Johnston is overseas.

1927
Major Louis L. Turcun’s address is A.P.O. 3309, Postmaster, New York.

William Martin Marbut is with the Chief of Medical Service of a section hospital. His address is APO 942, Seattle, Washington.

W. P. Neilson is now overseas. His address is Lt. Col. W. P. Neilson, APO 131, Postmaster, New York.

Major H. B. Bradburn is stationed at the Station Hospital, Camp Davis, North Carolina.

Capt. H. M. Roebber is in a medical hospital ships platoon.

1928
Arthur Lloyd Stockwell is in the Army medical corps. His address is Major Arthur Lloyd Stockwell, APO 557, Postmaster, New York.

Major William M. Brewer has requested that all future communications be sent to APO 413, Postmaster, New York.

Colonel Harold E. Schneider is a surgeon with the 6th Air Force Headquarters.

Joseph T. Maher is now at 808 N. Logan, Danville, Illinois.

Paul R. Rollins’ address is 476 McGraw Street, Seattle 9, Washington.

1929
Commander J. L. Henderson is with
the U. S. Naval Hospital, Seattle, Wash.

Major A. P. Rowlette is with the medical corps overseas.

Craig B. Johnson is a commander in the Naval medical corps, stationed at the U. S. Naval Hospital, Navy Yard, Charleston, So. Carolina.

Major A. W. Freshman is with the 172 General Hospital, A.S.F.T.C., Camp Barkeley, Texas.

Major Lawrence C. Ball is now with the 116th Evacuation Hospital, Fort Jackson, So. Carolina.

Lt. Com. Irwin Horwitz's address is U. S. Naval Hospital, Key West, Florida.

"Army surgeons at Leyte removed from a doughboy's chest a live artillery shell that might have exploded and killed surgeons, attendants and patient. The Yank probably will live." Major Charles Homer Appleberry of Flat River, Missouri, assisted by two other surgeons and a medical corps man, performed this hazardous operation at the risk of his own life as well as the lives of those around him. The shell had entered the body above the hips and lodged against the ribs. The fuse was still in place and the shell, if struck sharply, might have exploded. In order to extract the shell gently an extra long incision was made down the chest and stomach to give more room. Then, Major Appleberry grasped the shell firmly with the forceps and lifted it out.

(The press dispatch)

Jacob S. Fishman is a captain in the medical corps.

1930


Captain Benjamin F. Byland is with the 202nd General Hospital overseas.

Carl Zelson's address is 5536 Pine Street, Philadelphia, Pennsylvania.

Theodore L. Finley is now at 840 Sayles Boulevard, Abilene, Texas.

Major Frederick Lee Liebolt has notified us that his present address is Chief of Orthopedic Section, AAF Regional Hospital No. 1, Coral Gables 34, Florida.

Lt. Com. James P. Conway is in the Pacific.

Cleo Russell Sately's new address is R. 3, Devon Road, Unit 3, Pontiac 11, Michigan.

1931

Capt. Henry F. Scott is head of a dispensary overseas.

Lt. Com. Sam. A. Bassett is serving as senior medical officer on an escort aircraft carrier somewhere in the South Pacific. Commander Bassett, a member of the Naval Reserve, was called to active duty three years ago.

Capt. Morris Krutchkoff is in England.

Max Magnes' address is APO 9639, Postmaster, New York.

Capt. A. C. Scott is company surgeon at the General Headquarters of the Army's Services of Supply for the South Pacific area.

Ernest L. Glasscock's new address is 721 N. 4th Street, Burlington, Iowa.

Lt. Com. Daniel B. Landau is with a Marine division in the Pacific.

The correct address for Major Lloyd F. Kaiser is Post Office Box 174, APO 959, Postmaster, San Francisco, Calif. Orville Clark is a major in the Army. Major John R. Cochran is stationed at the Pocatello, Idaho, Army Air Base.

1932

Erwin K. Chung-Hoon is a major in the Army.

Capt. Helman Wasserman's address is 72nd Field Hospital, Camp Roberts, Calif.

Lt. Sol. Weisman's address is Fleet Post Office, San Francisco, Calif.

James A. Jarvis is now at 650 West 10th Street, Kansas City, Missouri.
Russell D. Harris is a lieutenant colonel with the Army medical corps, Station Hospital, Army Air Field, Sioux Falls, So. Dakota.

Isaac Lorberblatt's address is 915 Washington Avenue, Brooklyn 25, N. Y.

Capt. Charles G. Stauffacher's address is APO 235, San Francisco, Calif.

Edward J. Kloess is with the 140th Evacuation Hosp., Camp Gruber, Muskogee, Oklahoma.

Brian Blades, a lieutenant colonel in the medical corps stationed at Walter Reed General Hospital, Washington, D. C., gave a discussion with motion pictures entitled "Retained Shell Fragments in the Lungs" at the Southern Medical Association meeting on Tuesday, November 14, 1944.

1933

Olline Burton Doyle, Jr., is at the Marine Hospital, San Francisco, Calif.

C. S. McLemore is at the Station Hospital, Dale Mabry Field, Tallahassee, Fla.

Capt. Henry V. Kirby, member of the medical corps attached to the Custer Division overseas has been awarded the Bronze Star for heroic achievement in action on the 5th Army front in Italy.

Capt. H. R. Senturia's address is Station Hospital, Smoky Hill AAF, Salina, Kansas.

Lt. Col. Truman G. Drake is with a field hospital overseas.

Lt. Oreon Karl Timm is with an evacuation hospital in France.

1934

Captain David Friedman's address is APO 516, Postmaster, New York.

Lt. Col. Eugene Bricker's address is APO 887, Postmaster, New York.

Everett C. Caldemeyer is serving as a lieutenant in the Navy stationed at the Naval Air Station, Terminal Island, California.

William Ernest Patton is now at 8 Old Military Road, Saranac Lake, New York.

Capt. Arnold J. Gumper's address is APO 558, Postmaster, New York.

Major Wm. H. Doyle is stationed in Leyte.

1935

Robert Julius Budke is a lieutenant in the Navy medical corps.

Capt. William Berman is at the Station Hospital, Fort Riley, Kansas.

Lt. Com. Robert V. King has been transferred to the Navy Recruiting Station, Baltimore, Maryland.

Capt. Alfred Fleischman's address is now APO 640, Postmaster, New York.

Albert H. Krause's address is APO 511, Postmaster, New York.

Caroline Abney is now Personnel Physician for the DuPont Company. Her address is Box 100, DuPont Company, Richland, Washington.

A new address for Captain Ben D. Senturia is 493, Postmaster, New York.

Capt. Albert Kaplan's address is APO 25, Postmaster, San Francisco.

Major Bert M. Bullington is now at 3761 N. Meridian, Indianapolis 8, Indiana.

Capt. Max Goldenberg can be reached at 13522 Cedar Rd., Cleveland 18, Ohio.


Henry J. Lane is now at 365 Dana Avenue, Palo Alto, California.

Nathan K. Jensen is now serving as a medical officer in the Army with the rank of lieutenant colonel. His address is Director Reconditioning Dept., School for Personnel Services, AFS, Lexington, Virginia.

Capt. Arthur R. Bortnick is overseas. His APO is 17545, Postmaster, New York.

Major E. G. Graul's address is APO 923, Postmaster, San Francisco.

1936

In a communication from Robert C.
Dunn we find that his present address is Surgeon, U. S. Public Health Service, Natl. Institute of Health, Bethesda 14, Maryland.

Stephen S. Ellis' address is 755 E. Harrison, Springfield, Missouri.

Lt. Orwyn H. Ellis is now stationed at the U. S. Naval Training Center, San Diego 33, California.

Major Robert W. Kelley has APO No. 3309, Postmaster, New York.

Edmund S. Lockhart's address is APO 230, Postmaster, New York.

Lt. Col. Richard P. Mason is at 4551 Lakeview Avenue, St. Petersburg 7, Fla.

Thad McNamara's address is 2411 Bryant Street, Palo Alto, California.

Major Curtis H. Epps is stationed at the Prisoner of War Camp, McLean, Texas.

Eleanor J. Rector is now at 409 Akron Savings and Loan Bldg., Akron 8, Ohio.

T. W. McVety's address is 909 S. Highland Avenue, Oak Park, Illinois.

James F. Standard's address is Estrella Drive, Hope Ranch, Santa Barbara, Calif.

Major Robert W. Elliott is with the 201st General Hospital overseas.

Capt. Elwyn N. Akers is serving overseas in the West and has received the Bronze Star Medal, Unit Citation, and the Purple Heart.

Capt. Saul Dworkin was among the first doctors setting up the first Allied hospital in the invasion of France.

1937

Major John Connell has been awarded the Silver Star Medal "for gallantry in action in October, 1943 in Italy." During an attack by an infantry regiment over a river Captain Connell followed the infantry across the river and organized routes of evacuation of the casualties. All during the two day attack Cap. Connell supervised the function of these routes and constantly improved and shortened these routes to hasten the evacuation even though under enemy fire. His ingenuity and perseverance, and the calm and courageous manner of performing his duties, saved the lives of many casualties. "His coolness under fire and devotion to duty were exemplary and a credit to the armed forces of the United States."

Major M. W. Adler is overseas.

Willis H. Hayward is a major in the medical corps.


A new address for Captain Charles W. Polan is APO 100, Postmaster, New York.

Lt. Barnard C. Trowbridge is now at 510 Wabash, Belleville, Illinois.

Bernard A. Cruvant's address is 204 B. 724 So. Asaph Street, Alexandria, Virginia.

Henry Norvell Reid is now at 1413 N. Madison Street, Rome, New York.

Capt. P. S. Mountjoy is with the ENT Section, Regional Hosp., Fort Monmouth, Red Bank, New Jersey.

Capt. Albert E. Meisenbach's address is 2414 Ninth St., Wichita Falls, Texas.

Tom. L. Weber is a captain in the Army Air Corps.

1938

Captain and Mrs. James W. Findley recently visited the Alumni Office while enroute to Winter General Hospital, Topeka, Kansas where the captain is to be stationed. Captain Findley was resident in Otolaryngology at Roosevelt Hospital in New York City before he entered the medical corps on July 10, 1942. He was sent overseas August 18 of the same year. While overseas he was attached to a surgical hospital which later became an evacuation hospital. Captain Findley made a barrage landing on D-day in North Africa and also participated in the
Tunisian Campaign. He was also in Sicily, England, and Normandy. While in Normandy he operated on seventy compound skull fractures and all were successful. Captain Findley returned to the United States August 30, 1944. Any correspondence to him should be sent to 1120a N. Euclid, St. Louis 13, Missouri.

Orville Leon Barks is a prisoner of war at Camp Stalagluft 3, Germany.

Major Harvey D. Bingham has received the Bronze Star Medal "for meritorious service in connection with military operations against the enemy. . . ." "As chief of surgical service in a station hospital at Kwajalein, Major Bingham organized a surgical staff which functioned smoothly in spite of crowded facilities and inadequate equipment. Established as a four hundred bed unit, the hospital cared for twenty-nine hundred casualties in less than six weeks. Major Bingham's marked surgical skill and judgment were a vital factor in the excellent professional care rendered."

Lt. Col. H. G. Mosley is stationed at AAF Regional Hosp., Robins Field, Georgia.

James L. Doenges' address is 631 Citizen's Bank Bld., Anderson, Indiana.

Ralph L. Zucker is a lieutenant stationed in the Southwest Pacific.

Capt. James B. Jones is stationed with the 15th Hospital Center overseas.

Captain F. Dale Wilson is serving with the medical corps in Italy.

Captain Howard Steiner's address is APO 4936, New York.

Joseph L. Fisher's address is 2502 Washington Avenue, St. Joseph 20, Missouri.

Vivian F. Lowell's address is APO 30, Postmaster, New York.

Capt. John Lionberger is at Station Hospital, Patterson Field, Fairfield, Ohio.

Capt. Ernest Jensen's address is APO 421, Postmaster, New York.

Capt. Lawrence M. Kotner's address is APO 41, Postmaster, San Francisco.

Major Alfred Golden, M.C., who has been on duty for the past four years at the Army Medical Museum, has been transferred to the Division of Health and Sanitation, Office of the Coordinator of Inter-American affairs. Major Golden will be assigned to duty in Latin America to study the pathology of certain tropical diseases.

Miss Eleanor Laura Lindemann and Cornelius Shephard Meeker were married November 11, 1944. Dr. Meeker is a lieutenant in the Naval medical corps.

1939

Lt. Com. Howard R. Bierman is in the Pacific.

Carl Arthur Brakel is a major in the Army medical corps. He has seen action as a paratroop doctor in the Aleutians, Africa, Italy (Anzio Beachhead) (Rome) and is now somewhere in France. He has a son born March 9, 1943. At present his APO is 4994, Postmaster, New York.

Donald Clifford Dodds is in the Army medical corps with the rank of captain. His address is 5226 S. E. Ivon, Portland, Oregon.

Major Bart M. Passanante is in France after serving in Africa, Sicily and England.

Major Herman F. Inderlied's address is 435 Palo Verde, Monterey, California.

Lt. Benjamin Milder's address is 2121 S. 18th Street, Maywood, Illinois.

Captain Arthur W. Bohne's address is APO 377, Postmaster, New York.

Allan H. Tigert is a captain with a station hospital, APO 713, Postmaster, San Francisco, California.

Lt. Col. Richard S. Fraser is stationed in New Caledonia.

Captain George H. Zillgitt's address
WASHINGTON UNIVERSITY

is APO 635, Postmaster, New York.

Captain Edward O. Dameron's address is APO 582, Postmaster, New York.

Captain Reuben J. Maxwell has been overseas since March 1943. At present he is flight surgeon on detached service with the 13th Air Force. He has been awarded the Air Medal with Oak Leaf Cluster.

M. J. Brockbank is at the Station Hospital, Fort MacArthur, California.

Captain Mortan D. Ritter's address is APO 257, Postmaster, New York.

Dr. Earl Burbidge has been appointed medical director of Frederick Stearns and Company, Detroit, Michigan.

1940

Cecil H. Blackburn is a captain in the medical corps overseas.

Lt. Frank L. Davis, Jr. has been a patient at Woodrow Wilson General Hospital, Staunton, Va., having received a "compression fracture of the second lumbar vertebra"—in other words, a broken back—while on duty overseas. Lt. Davis, whose famous LST 496 was the first ship equipped as a surgical unit to arrive off the Normandy beach to pick up the wounded six hours after the invasion of Europe started June 6, was injured when the LST 496 struck a mine and sank while on a return trip across the English Channel. After recovering sufficiently Lt. Davis was able to assist with the surgical work, with the aid of a leather and steel brace, in the same hospital where he was stationed as a patient.

Walton B. Wall, Jr.'s address is 111 West Adams, Miami Beach, Florida.

Miss Suzanne Emily Ehrlich and Lt. Henry H. Friedman were married September 25, 1944. Lt. Friedman is in the Army medical corps.

Horace M. Wiley is with the medical corps of the Army overseas.

Kendall D. Gregory is a captain in the medical corps overseas.

Captain Ole Slind's address is APO 515, Postmaster, New York.

Lt. Harold A. Budke is stationed at Cushing General Hospital, Framingham, Mass.

Mary B. Johnson's address is 225 Millbridge Road, Riverside, Illinois.

Lt. Com. Seymour Brown is stationed at Mare Island, California.

Lt. Albert Ackerman's address is Fleet Post Office, San Francisco, California.

Lt. Robert E. Koch's address is 246th B. U., Section M, AAF, Pratt, Kansas.

A new address for Lt. Leo Sachar is APO 17404, Postmaster, New York.

Lt. Wm. T. Read is with the Marine Regimental Surgeon, FPO, San Francisco.

Thomas B. Dominick is at the Regional Hospital, Camp Shelby, Mississippi.

1941

Lt. Col. Thomas L. Ozment was recently promoted to his present rank for meritorious service during Invasion Day and the following ten days.

Capt. Frank J. Pickett, APO 558, Postmaster, New York, writes: "At present I am stationed on a heavy bomber base in England. Life is not too rugged, but still not very home-like. In this climate our chief problems are concerned with the upper respiratory tract, although we do see an occasional case of recurrent malaria or some such ailment entirely out of character with our geographic location... So far, I haven't bumped into any of my classmates over here, undoubtedly due to the fact that I am rather remote from London and do not get there often. So much for this time. I hope that things are running smoothly at Barnes."

Lt. Wm. L. Topp's address is Sta-
tion Hospital, Army Air Base, Roswell, New Mexico.

Gordon Sparks Letterman is in the service.

Lt. Mitchell Yanow’s address is Fleet Post Office, San Francisco.

William R. Beine is now at 1622 John Avenue, Superior, Wisconsin.

Capt. Robert J. Cook’s address is APO 758, Postmaster, New York.

A new address for Capt. David Bachwitt is APO 837, Postmaster, New Orleans.

Captain Henry H. Caraco is stationed at the 123rd Evacuation Hospital, Camp Rockes, Alabama.

Captain Sylvan A. Hertz is in the Office of the Flight Surgeon, AAF Redistribution Station No. 2, Miami Beach, Florida.

Lt. Judson Chalkley has APO No. 452, Postmaster, New York.

Captain Garland F. Smith’s address is APO 259, Postmaster, Camp Polk, Louisiana.

Allan Morris Rosen’s address is 619 So. Westlake Avenue, Los Angeles, Calif.

The War Department recently announced the award of the Silver Star to Captain David N. Kerr for “gallantry in action near El Guettar, Tunisia, March 28, 1943. During two successive enemy counter-attacks, under intense enemy machine gun and artillery fire, he successfully treated and evacuated a number of wounded men. His courageous and unselfish actions undoubtedly saved many lives.” Captain Kerr has been in the service since Jan. 10, 1942.

A new address for Captain Robert E. Buck is China Air Service Area Command.

Nelson W. Johnson’s address is 2120 Great Hiway, San Francisco, California.

Captain Charles H. Ransom’s address is Commanding 511th Med. Coll. Co., Camp Pickett, Virginia.


Captain Charles E. Fildes is with the 27th Evacuation Hospital overseas.

A new address for Captain Samuel W. Gollub is APO 45, Postmaster, New York. He has been awarded the Silver Star Medal for a rescue of four wounded American members of a forward reconnaissance unit from a trapped position between enemy lines.

Captain James H. Cross is with an evacuation hospital in France.

Captain and Mrs. Frank K. Tatum announce the birth of a daughter, Susan Rosvall Tatum, November 20, 1944—6 lbs. 14 ovs.—Abilene, Texas, 1942

Jack E. Weaver has been promoted to Captain at Courtland Alabama, Army Air Field.

Charles M. Huguley Jr.’s new address is 80 Peachtree Way, Atlanta, Georgia.

Captain Asa Charles Jones is stationed at Chanute Field, Illinois.

Samuel T. Ellis, Jr. is now at Box 213, Raymondville, Texas.

Captain Robert B. Stortz’s address is APO 403, Postmaster, New York.

A new address for Lt. Royal L. Brown is 3032 AAFBU SAAAB, Santa Ana, Calif.

Lt. Burton A. Foote is stationed on Guam.

Captain Jules L. Glasgow is with the 2nd General Dispensary overseas.

Russell L. Herdener’s address is 719 Second Avenue Building, 2nd floor, Seattle 4, Washington.

Lt. Charles B. Mueller is with the 4th Marine Division overseas.

Souther F. Tompkins visited St. Louis and enjoyed seeing his former faculty members, classmates, and at-
tending clinics. Dr. Tompkins interned at the Hospital of the University of Pennsylvania in Philadelphia and recently received a fellowship in the Department of Surgery at Mayo Clinic in Rochester, Minnesota.

Lt. H. T. Blumenthal is with the Station Hospital, Camp Butner, No. Carolina.

Captain Wendell L. Jones recently visited the Alumni Office. He is dispensary officer at the Station Hospital at Chanute Field, Illinois. Dr. Jones interned at St. Luke's Hospital in St. Louis. In June 1943 he entered the Armed Forces and was sent to Carlisle Barracks for training. Since that time he has been at Chanute Field. His address is Box 38.

Jack C. Neavles is a captain in a parachute group. His APO is 472, Postmaster, New York. He was recently commended for bravery in a battle in Normandy.

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Lt. Raymond M. Charnas' address is APO 655, Postmaster, New York.

Grace E. Bergner is now at the New Haven Hospital, New Haven, Connecticut.

Lt. Daniel S. Castile is stationed at Mitchel Field, Long Island, New York.

Carvel T. Shaw is now at 1506 Delaware, Detroit 6, Michigan.

Lt. David Freeman is at Camp Carson, Colorado.

Lt. Jack F. McKemie is stationed at Carlisle Barracks, Pennsylvania.


Lt. Harry A. Wittler is with the 12th General Dispensary overseas.

Lt. Alva C. Trueblood, Jr.'s address is Fleet Post Office, San Francisco.

D. Clair Christensen is at Sonoma County Hospital, Santa Rosa, California.

Irvin H. Mattick is a Naval medical officer in the South Pacific.

Henry V. Guhleman, Jr.'s address is Johns Hopkins Hospital, Baltimore, Maryland.

William J. Miller is with Milwaukee Children's Hospital, Milwaukee, Wisconsin.


Lt. Ernest S. Rosenstein is with the 154th General Hospital overseas.

Lt. Don L. Fisher's address is APO 7850, Postmaster, San Francisco.

Leo Francis Donley can be reached at 2211 McLaran, Jennings 21, Missouri.

Conrad DeBold is at Memorial Hospital, Colorado Springs, Colorado.

Jerry H. Allen, Jr. is a lieutenant in the Army medical corps stationed at Carlisle Barracks, Pennsylvania.

Wood Lyda is now at Doctors' Hospital, Washington, D.C.

Walter James Kennedy, Jr. is a medical officer in the U. S. Army. His mailing address is 1216 So. Lamine, Sedalia, Missouri.

J. Logan Mayfield is at St. Joseph's Hospital, Alton, Illinois.

Lt. Fred C. Schweitzer's address is APO 709, Postmaster, San Francisco.

Jean B. Dehlinger can be reached in care of Dr. K. R. Dehlinger, Evans Memorial Hospital, Boston, Massachusetts.

Fred M. Turbeville's address is 1430 N. 25th Street, Birmingham, Alabama.

A new address for Dallas D. Anthony is RFD No. 3, Springfield, Mo.

Dr. and Mrs. Robert J. Lince (Elaine K. Lince, M.D.) have a daughter, Anita Elaine, born September 17, 1944.

Boyd Joseph Larsen is a lieutenant in the U. S. Army medical corps with O.T.B. Group B 62nd, Carlisle Barracks, Pennsylvania.

Lt. Alfred A. Thurlow, Jr. is serv-
ing aboard a destroyer.

Lucille A. Sprenger's address is 318 Parkside Drive, Peoria, Illinois.

Lt. H. I. Firminger's address is Letterman General, San Francisco.

Lt. John Bruce Balken's address is APO 44, Postmaster, New York.

In a recent letter to Colonel Perry, P.M.S. & T., from G. Russell Aufderheide, Lt. Aufderheide writes, "This isn't much of a letter but I was thinking of you and thought I'd say, "Hello" . . . Harry Wittler is a Port Surgeon in England, Mel Goldman is (in June) in New Guinea. . . . The last I heard of Harlan Firminger he had an ideal setup in pathology at Fort Ord, California, Station Hospital. Frank Wissmuth, "Hank" Anderson, Harding, and I were in the same unit. Harding was transferred out shortly. . . . I managed to see Wittler when in England by staying up all night and travelling by peep."

Miss Naomi Ruth Mazur and Lt. Saul D. Silvermintz were married November 9, 1944. Lt. Silvermintz is stationed at Valley Forge Gen. Hosp., Phoenixville, Pennsylvania.

Capt. Edward N. Snyder, Jr., address is APO 200, Camp Shelby, Mississippi. 1944

Alsey Clements Pratt Jr. is now overseas.

Frank X. Dwyer is a lieutenant in the Navy with the 6th Marine Division.

Stephen Wells Kempiter's address is 1605 Arch Street, Little Rock, Arkansas.

Alexander Ling's address is Union Memorial Hospital, Baltimore, Maryland.
In Memoriam

Samuel T. Armstrong, St. L. '79, Katonah, N. Y., died August 31, aged 84.
Samuel T. Bassett, '07, St. Louis, Mo., died November 1 aged 71.
Earl Bohnert, '41, Captain in the Army medical corps, killed overseas, St. Louis, Mo., died June 6, aged 30.
Harry X. Cline, '05, Marion, Illinois, died October 15, aged 66.
Corydon O. Dewey, Mo. '82, St. Joseph, Mo., died November 3, aged 83.
Rollin S. Fillmore, Mo. '83, Long Beach, California, died November 2, aged 89.
Frank D. Gorham, '12, St. Louis, Mo., died November 27, aged 56.
Haynie M. Grace, Mo. '91, Chillicothe, Mo., died June 13, aged 78.
Charles A. Hadsell, Mo. '85, Alamosa, Colorado, died September 3, aged 90.
George E. Hourn, '13, St. Louis, Mo., died December 10, aged 66.
Joseph H. Humphrey, '01, St. Louis, Mo., died June 23, aged 67.
Silvanus B. Kirkpatrick, Mo. '83, Taylor, Texas, died August 4, aged 92.
Rufus H. Main, Mo. '94, Barry, Illinois, died August 20, aged 76.
M. S. McGuire, Mo. '95, Boonville, Mo., died August 31, aged 69.
Oliver Lee Ogle, '97, Belleville, Illinois, died July 31, aged 76.
Volney E. H. Reed, Mo. '81, Austin, Texas, died June 3, aged 84.
Guy N. Stonemetz, St. L. '85, Fairfield, Illinois, died September 22, aged 81.
George W. Stratton, Mo. '88, Marysville, California, died August 29, aged 79.
Thomas F. Turner, '25, Macon, Mo., died June 28, aged 42.
James B. Vaughn, Mo. '94, Castlewood, S. D., died July 16, aged 76.
A. Wm. Vogt, Mo. '84, Guilford, Indiana, died December 4, aged 88.
Arthur J. Zimlick, '95, Philadelphia, Pa., died September 2, aged 71.
WASHINGTON UNIVERSITY

Harry B. Wallace, A.B., Acting Chancellor

The College of Liberal Arts
William G. Bowling, A.M., Dean

The School of Engineering
Alexander S. Langsdorf, M.M.E., Dean

The School of Architecture
Alexander S. Langsdorf, M.M.E., Dean

The School of Business and Public Administration
William H. Stead, Ph.D., Dean

The Henry Shaw School of Botany
George T. Moore, Ph.D., Director

The School of Graduate Studies
Richard F. Jones, Ph.D., Dean

The School of Law
Warner Fuller, B.S., LL.B., Dean

The School of Medicine
Philip A. Shaffer, Ph.D., Dean

The School of Dentistry
Benno E. Lischer, D.M.D., Dean

The School of Nursing
Louise Knapp, R.N., B.S., A.M., Director

The School of Fine Arts
Kenneth E. Hudson, B.F.A., Dean

University College
Willis H. Reals, Ph.D., Dean

The Summer School
Frank L. Wright, A.M., Ed.D., Director

Mary Institute, a preparatory school for girls, located at Ladue and Warson Roads, is also conducted under the charter of the University.

Note: Complete information about any of the schools listed above may be obtained by writing to the Dean or Director concerned.