

BRIEF SUBMITTED TO SURGEON-GENERAL W. C. GORGAS, ADVOCATING THE ESTABLISHMENT OF A PHARMACEUTICAL CORPS IN THE U. S. ARMY.*

MAJOR-GENERAL W. C. GORGAS,
Surgeon-General of the U. S. Army,
Washington, D. C.

DEAR SIR:

On July 24th last, a conference was held at your office between a board of Army medical officers composed of Col. George E. Bushnell, Majors E. P. Wolf, F. F. Russell and Stewart Maguire, and a committee of pharmacists, at which was discussed the proposition that a Pharmaceutical Corps be established as a branch of the Medical Department of the Army.

At the close of this conference, it was agreed that the undersigned should prepare for the consideration of the Surgeon-General a formal argument or brief setting forth the views of the pharmacists as to the needs for and the benefits to be obtained by the establishment of the Pharmaceutical Corps.

Pursuant to that agreement, this statement has been prepared and is presented to the Surgeon-General with the request that the facts and arguments set forth herein receive his official consideration and with the hope that the importance of increasing the efficiency of the Medical Department by the establishment of a Pharmaceutical Corps will be so impressed upon him that this proposition will merit his approval and endorsement.

PHARMACY A SCIENTIFICALLY DEVELOPED BRANCH OF MEDICINE.

The progress of the medical sciences has necessitated differentiation and specialization and this has separated modern medical practice into various branches, as medicine, surgery, dentistry, veterinary medicine and pharmacy. The pharmacist is now scientifically and systematically trained to fill a specific need of society. Upon the proper performance of the duties of the pharmacist the other practitioners of medicine are compelled to rely. Unless the drugs are properly selected and the medicines properly prepared and dispensed, their skill goes for naught. Upon the faithful and capable performance of the work of the pharmacist depends the success of the medical profession and, likewise, the lives of the patients.

American pharmacists hold a prominent position in the world development of their profession. The United States Pharmacopoeia ranks as the peer of any national pharmacopoeia. In the more recent revisions of this authority, the pharmacists have contributed very largely the chemistry, botany and pharmacognosy of the standards as well as most of the formulas contained therein. The other legal authority for medicines, the National Formulary, has been prepared entirely by a committee of the American Pharmaceutical Association. It is inconceivable that the War Department should ignore this important branch of the medical professions and to-day has not commissioned in its service a single eminent pharmacist. Pharmacy is recognized as the right arm of medicine in civil life and there is no reason why this position is lost in military duty.

The value of pharmacy as a national asset should not be lost sight of, especially in the present exigency, when it must be recognized that the success of our Nation in this war will depend upon the proper utilization of every available talent. It is just as reprehensible to waste talent as to waste materials. The former is as much the property of the citizenship as is the latter and they are entitled to its conservation and the protection which it affords.

THE SOLDIER IS THE ULTIMATE CONCERN OF THE MEDICAL DEPARTMENT.

Those in the military service of the Nation are entitled to the very best medical attention that the Government can procure. A Nation that is proclaimed as the wealthiest and as the most progressive of all nations must not assume any second place in providing means for the preservation of the health and lives of those serving in its army. The people of the United States will expect the Medical Department to adopt the most efficient methods for the conservation of the health and lives of our soldiers and for the recuperation of the unfortunate wounded.

Surgeon-General Geo. J. H. Elyatt of the British Army very aptly stated: "That the Medical Department existed for the individual benefit of the soldier and if they failed in their duty to

*Mention of this brief was made in the report of Chairman S. L. Hilton of the Committee on the Status of Pharmacists in the Government Service, presented at the Indianapolis meeting, A. Ph. A., 1917.

him they were not faithfully discharging their obligation. The ultimate soldier was the person whom they all served."

DISPENSING OF MEDICINES IN THE GOVERNMENT SERVICE NOT IN ACCORDANCE WITH STATE PHARMACY LAWS.

The dispensing of potent remedial agents, whether in civil practice or in the military service, should be restricted entirely to those who have been especially educated and trained as compounders and dispensers of medicines. This principle is so thoroughly established that the States, and likewise the District of Columbia and our Insular possessions, in the exercise of their police power, have by legal enactment provided for boards of pharmacy to examine and license those to whom authority only is given to compound and dispense medicines.

The Army medical supplies necessarily include such poisonous drugs or their preparations as aconite, atropine, belladonna, cocaine, colchicum, hyoscyamus, morphine, nux vomica, opium and strophanthus. The dispensing of these in the Army is not only "done by non-commissioned officers of the Medical Department," but quite commonly by those whose lack of education and training would preclude them from the examinations of any Board of Pharmacy. Surely the soldier is entitled to pharmaceutical service and protection equal at least to that which his State provides for him in civil life.

DANGER IN FOLLOWING THE ERRORS OF THE BRITISH ARMY MEDICAL DEPARTMENT.

Unfortunately, the United States has copied the methods of the British Army Medical Department whose service has been denounced at home, as "obsolete" "incompetent" and "inefficient." Great Britain and the United States are the only two prominent nations whose army medical service does not provide for an organized pharmaceutical corps.

In England this serious defect has been forcefully pointed out and the comparisons made with the well organized and equipped medical and pharmaceutical corps of the continental armies have not been at all creditable to their home government. *The Pharmaceutical Journal and Pharmacist*, of London, in a recent editorial states: "The British Pharmaceutical Council has already been compelled to report several cases of poisoning that had occurred in hospitals because of untrained dispensers."

The investigations of the causes of the failure of the British Expedition in Mesopotamia present a most harrowing account of a horrible calamity. The intolerable suffering of the soldiers through the lack of medical attention is not only deplorable, but it is inexplicable that in a modern army, existing under the present status of medical knowledge, such a condition could possibly have occurred. Upon the insufficiency of the medical provisions and the inefficiency of the Medical Department much of the blame for the collapse of this unfortunate expedition is now officially placed. No more striking example of the danger of following obsolete methods could be presented.

READY MADE MEDICINES A SOURCE OF DANGER.

The statement has been officially made that "the pharmaceutical preparations of the Army, especially in time of war, are for the most part in tabloid form; the pharmacy is therefore a matter of dispensing rather than of compounding of preparations." This indicates that pharmacy as practiced in the U. S. Army is very elemental indeed and that even the very basic ideas of professional pharmacy are ignored. Such service must necessarily be far from being satisfactory or efficient or protective of the interests it is supposed to serve.

On the battle line and in the advanced positions, drug dispensing is necessarily limited and confined mainly to first aid. However, in the hospitals and in the convalescent homes and infirmaries treatment is given to many sufferers from disease as well as the wounded and here will be found thousands of cases requiring continuous and extensive treatment, and such cases will rapidly multiply as the war is prolonged. To seriously propose that such shall be treated with "canned medicine" in "tablet form" and denied the services of competent compounders of medicines, is certainly not in accordance with our present knowledge of what is essential to conserve life whether in time of peace or "in time of war."

Tablets are for some purposes a very convenient and useful dosage form, but for many purposes and for many medicines they are absolutely unfitted. Not infrequently, where prompt and reliable action is necessary, the conscientious physician is compelled to select some other form of medication. The most serious evil resulting from this "ready made medicine" and

tablet dosage is that too often the patient is made to fit the tablet on hand instead of a remedy being prescribed to fit the needs of the patient. There can be no question as to the superiority of the individual treatment over this method of "treatment *en bloc*." The proper method, and the ideal professional method, would be for the physician or surgeon to diagnose each case, prescribe what that patient needs at that time and to have the medicines compounded freshly and dispensed by a competent pharmacist. To do otherwise is dangerous to the life of the patient and detrimental to the medical service.

COMPARISON OF THE ARMY PHARMACEUTICAL SERVICE OF FOREIGN NATIONS WITH THAT OF THE UNITED STATES.

No one has, as yet, estimated the percentage of mortality in the Army resulting from improper and inefficient medical service. The statistics that have been compiled, however, show that in the past wars, the number of men dying from disease was many times that killed by the enemy. "During the Civil War, the Union Army lost by deaths from diseases 186,216 and 93,369 were killed." "In the Spanish-American War of 1898, only 454 Americans were killed and 5,277 died from disease."

In the Russo-Japanese War, the Japanese demonstrated the life-saving value of a scientific and systematically organized medical department, and the remarkable reduction of mortality from disease and wounds in the Japanese Army during that war attracted world-wide attention.

In the present World War, Germany reports that 87 percent of her wounded are returned to the service. This remarkable conservation of life is very properly attributed to the efficient service of her highly trained medical corps and accounts very largely for the ability of the Germans to keep up their vast armies on all the war fronts. It is reasonable to assume that a due share of the credit for this efficient hospital service is due to the German Army Pharmaceutical Corps.

The pharmaceutical service in the German Army was completely reorganized in 1902. Since that date, the pharmacists in addition to performing purely pharmaceutical duties, have been given charge of the hygienic, chemical and research laboratories of the Army and each ranking officer in the Pharmaceutical Corps must have taken the special course in certain official laboratories and have obtained a diploma as a chemist qualified to examine foods.

Each army corps has an associated sanitary corps under the control of an apothecary officer who has charge of the pharmaceutical service and supplies and is the director of the laboratory connected with that corps. Each army corps has likewise a supply depot and a manufactory of supplies which furnishes the medicines and dressings for that army corps. The medicines kept on hand for the hospitals include nearly all the official pharmaceutical preparations.

The commander of the German Army Pharmaceutical Corps is the *Oberstabsapotheker* who is attached to the Medical Section of the Prussian Minister of War and his rank is equal to that of a general of a brigade.

France has an organized Army Pharmaceutical Corps, the commander of which is called the inspector and with rank as brigadier-general. The complete organization includes the titles of principal pharmacists, pharmacists, pharmacist-majors and assistant pharmacist-majors and ranking as colonels, lieutenant-colonels, majors, captains and lieutenants. When the French peace army of 500,000 men was rapidly increased to 3,500,000 trained soldiers, the pharmaceutical corps was automatically increased from the pharmacists in reserve, many of whom had already held commissions and had experience in the sanitary corps.

In January 1915, over 1,200 of the mobilized pharmacists who had the necessary experience and training in the service, were commissioned as first class assistant pharmacist-majors ranking as lieutenants. The pharmaceutical corps in France manufactures many of the army supplies and is charged with chemical examination of water, foods, and army supplies, and a pharmacist of rank is attached to the Sanitary Council of each military district.

In Spain, as early as 1813, the Military Pharmacy Corps was promulgated. Despite the several changes and reorganizations of the Sanitary Corps that have taken place in that country since that date, the organization has been continued and its work made more comprehensive and beneficial. Its personnel comprises inspectors, sub-inspectors, pharmacist-majors, pharmacists of the first class and pharmacists of the second class and with commissioned rank from colonel to lieutenant.

In Japan, "the Army has a Sanitary Supply Department and the Director of this Department is equal in rank to a colonel, and wherever there is a barrack, it has a field hospital which

has a Department of Pharmacy, and the Director of this pharmacy is equal in rank to a lieutenant-colonel. The rank of pharmacists in the Army is from a sub-Lieutenant to a Colonel."

In the United States Army, we have No Pharmaceutical Corps Whatever. We have no pharmaceutical supervision of medicines and hospital supplies. We have no governmental manufacture of medical supplies for the Army under the supervision of trained pharmacists. We have no specially trained pharmacists to attend to the dispensing and compounding. We have absolutely nothing that bears any semblance to a modern army pharmaceutical corps.

We have it officially stated that in the United States Army "the dispensing of drugs or compounding of prescriptions is done by the non-commissioned officers of the Medical Department." Many of these, as pointed out, could not qualify to practice pharmacy in civil life. Can the United States afford to have an Army Medical Department and Service that is inferior to that of Spain or Japan? Can those in authority continue to ignore the value of the services of pharmaceutical corps in foreign armies and the potent lessons of efficient organization?

An order has just been published by the adjutant-general for the reorganization of the Army of the United States in conformity with the organization of the French Army. If we find the French models for the line troops worth following, it is reasonable to suppose that we should likewise follow their organization in the Sanitary Service including the medical and pharmaceutical corps.

EFFICIENCY OF THE MEDICAL CORPS DEMANDS PHARMACEUTICAL ASSISTANTS.

The advice of Cicero to "Let each one exercise himself in the art which he knows" is but a more ancient expression of the doctrine of "every one to his trade and the right man in the right place." This principle is the very foundation of modern efficiency which is now demanded in every occupation. War is the supreme test of a Nation's efficiency and in time of war it is of paramount importance that every man be put to that work in which he can render the most useful service to the Nation. The magnitude of modern warfare demands the most perfect organization and the most effective service, and nowhere is this of more importance than in the medical service of the Army and Navy.

Each line of activity requires specialized education and training, and to permit one branch or activity to encroach upon the special field or duty of another means national inefficiency, if not actually national suicide. To place a skilled army surgeon in charge of a medical supply depot to look after the procuring and distribution of medical and hospital supplies and the accounting thereof is, to say the least, wasteful of his special talent that may be sorely needed elsewhere. The military surgeon has more than enough to do, to attend to the strictly medical needs of the sick and wounded and to make the necessary examinations and reports.

The medical profession is now asking for higher rank for the medical corps of the Army and the increased authority that accompanies rank in the military service. Attention is likewise being directed to the need for skilled and adequate assistance and for relief from the non-medical work imposed upon the medical corps. In a recent article Dr. J. Madison Taylor writes:

"In my judgment there is grave peril that in the near future the demands upon the medical service will be so many and serious that it may break down from overwork. It is to prevent this, to anticipate, that we make the constructive suggestion, that steps be taken immediately to provide a sufficient number of assistants skilled in all those branches of service required for the Medical Corps."

"The medical man of the Army and Navy comes nearest to realizing this symbolic and wholly imaginary embodiment of omniscience, but in view of the terrific demands made upon him by modern warfare in time and work, if ever a man needed skilled and adequate assistance he is the man, and yet our Army and Navy is proceeding in the upbuilding of its medical service along the old, old lines of expecting the medical men to 'do it all.' The military service of France, Germany, Japan and other countries gives its medical men proper and sufficient assistance. We should do no less; we ought to do more."*

It is very appropriate that the medical profession, in this time of exigency, should recognize that pharmacy is the rational support of medicine and that the pharmacist, specially educated in the collateral medical sciences and skilled by years of practical training, is prepared to give that assistance and support that is needed by the Medical Corps.

* "Give the Military Surgeon Skilled and Adequate Assistance." He Cannot Do It All.— J. Madison Taylor, M.D., *New York Medical Journal*, July 21, 1917.

It is very gratifying to note that the leaders in the medical profession are outspoken in their support of pharmacy as a necessary branch of the military medical service and in favor of its proper recognition with commissioned rank.

In a recent letter to President F. J. Wulling of the American Pharmaceutical Association, President Charles H. Mayo of the American Medical Association writes:

"I was very glad to see the action taken by the House of Delegates in recommending recognition of the pharmacists, and I hope it will bear fruit in advancing the recognition of the great benefits which can be derived from the use of pharmacists in the Army service." The *Journal of the American Medical Association*, on June 16, 1917, editorially commented:

"So far as official recognition of it is concerned, the science and art of pharmacy might not exist for the Army. To-day, as never before, victory in war goes to the Nation that most effectively conserves the health of its fighting men. The physician is now of such military importance that the medical profession will be called on to make no inconsiderable sacrifices. It will materially lighten the arduous duties and responsibilities of the physician to have in the Army trained pharmacists who will be able to give intelligent coöperation. But it is imposing too great a strain on the patriotism of those whose special knowledge is obviously a large asset to the Army, to expect them to enlist as privates without any recognition of their national worth. Pharmacists should be given a rank commensurate with their importance, first because it is but simple justice to the pharmacists themselves, secondly, because the usefulness of the medical corps will be greatly augmented and, lastly, and most important, because the efficiency of our Army demands it."

THE DUTIES OF THE PHARMACEUTICAL CORPS.

In the absence of any attempt in the past to organize the pharmaceutical service in the Army the duties that might be assigned to a Pharmaceutical Corps can be only tentatively outlined. The provision of the various foreign army pharmaceutical corps will furnish excellent models for the duties of such a corps. These have been very generally followed in the fairly comprehensive line of duties stated in the bill introduced by Congressman Edmonds, entitled

"A Bill to increase the efficiency of the Medical Department of the United States Army, to provide a Pharmaceutical Corps in that department, and to improve the status and efficiency of the pharmacists in the Army." H. R. 5531.

No doubt the experience of other nations will be duplicated in that the duties assigned to the pharmaceutical corps will rapidly increase and with such increase of duties the corps will grow in usefulness and importance. Eventually, it may be placed in control of not only the providing, manufacturing and distributing of pharmaceutical and hospital supplies, but also, as in foreign countries, of the various hygienic, chemical, analytical and research laboratories of the Army.

NO RADICAL REORGANIZATION CONTEMPLATED.

The formation of a Pharmaceutical Corps in the Army Medical Department, as provided for in H. R. 5531, does not contemplate any radical changes or reorganization of the Department. By a readjustment of the regulations, the medical corps can be relieved of its burden of non-medical duties, records and accountings. The Pharmaceutical Corps should be promptly organized to take up its various duties and to coördinate its work with that of the medical, dental, veterinary and nurse corps of the military service.

Respectfully submitted,

Signed GEORGE M. BERINGER,

President National Pharmaceutical Service Association.

JOSEPH W. ENGLAND,

Member of Committee on National Defense, American Pharmaceutical Association.

PHILADELPHIA, PA.,

August 10, 1917.
