

CONTRIBUTED AND SELECTED

JUSTICE TO THE PHARMACEUTICAL SERVICE OF THE U. S. ARMY.*

BY J. W. ENGLAND.

In the current issue of the *Journal of the American Medical Association* (June 16, 1917), there appears an editorial upon the subject of "Justice to the Pharmacist." It is of unusual interest and significance. It reads as follows:

JUSTICE TO THE PHARMACIST.

The letter in the correspondence department of this issue from Mr. J. W. England, Secretary of the Council of the American Pharmaceutical Association, calls attention to an anomalous state of affairs. Physicians, dentists and veterinarians are officially recognized by the government as men of special training, whose technical knowledge can be of use to the nation in time of war. Provision is made so that men in these three professions can be enrolled as commissioned officers and their skill thus most efficiently used by the Army. The pharmacist, however—as a pharmacist—is utterly ignored. If he enlists he does so as a private. 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 cooperation. 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 letter referred to is as follows:

To the Editor:—The one outstanding feature of the present world-wide war, which differentiates it from all previous wars, is the recognition of the importance of the industrial resources of nations. Not only is the war of to-day a contest between military forces, but it is a contest between industrial forces. Every nation involved is mobilizing its industries—using the term in its broadest sense—and stimulating their growth and development to the highest plane of efficiency, realizing that, in the final analysis, victory will go to that nation or those nations which will hold out the longest—industrially, financially, and militarily. It is a war of attrition. Such being the case, it is vital that the United States, having entered into the war, should mobilize its industries—which it is doing with the aid of the Council of National Defense—and do everything possible to strengthen the weak links of its industrial chain.

One of the most important industries of the war is the relief of human suffering and the saving of human life, and this is the special province of the medical profession, which has never failed to discharge its duty in the past and will not fail now. No one can question the loyalty of the American medical profession to the highest ideals of professional conduct or its patriotism.

The weakest link of the army is its system of pharmaceutical service. This is exceedingly unsatisfactory, because it is hopelessly antiquated. We have no pharmaceutical corps, pharmacists being compelled to enlist as privates without any provision for commissioned rank, as in the dental and veterinary corps. France, Germany, Japan and other nations have such corps, in charge of a pharmaceutical expert of high military standing. The head of the Pharmaceutical Corps in Germany is of the rank of colonel; in Japan of the rank of lieutenant-colonel, and in Italy and France of the rank of major-general.

* Read before the Pennsylvania Pharmaceutical Association meeting, 1917.

The present system is detrimental to the efficiency of the army because it fails to recognize the importance of proper and sufficient pharmaceutical service and denies to the sick and wounded the best pharmaceutical service the nation can give. The present system is unfair to pharmacy and pharmacists. Pharmacy is a profession and the graduated pharmacists of to-day have had years of collegiate training and practical experience. To enlist professional men as privates is not only unjust to the men, but it is also unjust to the army, because it denies to the army the possibilities of service which such men could render. We hear a great deal these days about commercialism in modern pharmacy, but there has never been a time when American pharmacists, as a class, were being better trained for professional work than to-day. There are upward of 100 colleges of pharmacy in the country and these are growing less in number—and stronger. The entrance requirements are being raised, the curriculums extended and everything possible is being done to uplift American pharmacy, professionally. One thousand five hundred pharmacists graduate this year and they are loyal to high professional ideals.

The present system is unfair to the medical corps because it denies to that body the assistance and support that a properly trained pharmaceutical corps could give. Pharmacists have been trained not only in pharmacy, but they have also had elementary training in some of the medical sciences, and could be made most useful "medical assistants" in the field, while in the hospitals they could be made purveyors and given charge of the medical supplies, as well as render pharmaceutical and chemical service in the dispensing of drugs and in the chemical and bacteriologic examination of food, water, milk, excrements, etc. In addition they could be developed into useful workers in Roentgen-ray, anesthesia, bandaging and sanitation. The present war is more destructive in injuries and fatalities, both to privates and to physicians, than ever before. Before the war, our army required seven medical officers for each thousand combatants. To-day our army is requiring ten medical men for each thousand, while the British forces have increased their number to nineteen, and it is more than probable that when we get into action we shall have to adopt the British ratio. This means 19,000 physicians for each million of troops or 38,000 for two millions. To-day, there are probably less than 5,000 medical men in commission or in the reserve corps. Hence, it is exceedingly important that the medical forces of the country be mobilized, and a properly trained pharmaceutical corps could be made of great usefulness to the medical corps as "assistants," both in the field and in hospitals.

Approximately there are 150,000 pharmacists in the United States from which an ample supply of skilled pharmacists could be drawn; but the conditions of pharmaceutical service in the army will have to be radically changed before they can do their best work. American pharmacy is a profession, no matter how much it may be tinctured in some directions with commercialism, and American pharmacists in general and the American Pharmaceutical Association in particular have been making serious and earnest endeavors to improve existing conditions.

Like the cry of Macedonia, we ask the great American medical profession to "come over and help us" in the upbuilding of American pharmacy, so that both the profession of medicine and the profession of pharmacy may be bettered. We ask, also, that the medical profession put its seal of approval on the movement to establish a pharmaceutical corps in the army and urge the War Department and the Congress to establish such a corps with proper military standing and responsibilities. American pharmacy is not seeking any special privilege, but it is asking for proper professional recognition in the army service to the end that it may have the opportunity to do its fullest and best work for the sick and the wounded.

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The first question that naturally arises is: "What is the attitude of the War Department upon the question of the establishment of a pharmaceutical corps in the Army?" because the wishes of the department will be respected. And it must be confessed that the War Department *has been* consistently opposed to any modification of the existing Army establishment along the lines indicated. Its attitude has been that it does not consider the establishment of a commissioned pharmaceutical corps in the Army expedient at the present time, because it does not "appear" to be necessary. In other words, the department is open-minded. It is willing to be shown. Its officials are apparently Illustrious Sons of the Ancient

and Honorable State of Missouri. But they are not like the Scotchman who said that he was always "willing to be convinced, but he would like to see the man who could do it!" The War Department officials are men of the highest character, honest and sincere, facing stupendous problems; and they deserve the sympathy and support of every loyal American citizen; their only fault—if it is a fault—is that they do not understand technical, professional pharmacy and cannot visualize its possibilities in the Army service. They need "vision" and it is up to the pharmaceutical profession to demonstrate to them the desirability and necessity of a commissioned pharmaceutical corps in the Army.

In the first place, it must be admitted that pharmacy as practiced in the Army to-day is very elemental. It is alleged that "canned pharmacy is the order of the day in the Army." By "canned pharmacy" is meant that compressed tablets, or like products, possibly dry and hard, and of uncertain age and solubility, are chiefly used in medical treatment, no attempt being made to individualize the treatment. If this be true, it is obvious, of course, that the treatment cannot compare in comprehensiveness and efficiency with that of private practice and the clinical results must be inferior. Of course, on the firing line, where convenience and portability are most essential, there must be compactness and a very limited range of medicaments, but in the base and general hospitals there should be scientific treatment, with abundant opportunities for the pharmacist, not only in the compounding and dispensing of drugs, but also, in chemical, clinical, biological, bacteriological, sanitation, dietetic, Roentgen-ray, toxicological and other scientific work.

One of the most important lines of work that could be given pharmacists in the Army would be as medical assistants. Pharmacists are skilled technical men, and, as pointed out by the *Journal of the American Medical Association*, they could intelligently cooperate with the medical profession in the Army and materially lighten the arduous duties and responsibilities of physicians. They have an exceptional knowledge of chemistry and by reason of their daily, practical work, have acquired a manipulative skill in the handling of chemicals and other materials that should enable them to become, with a little training, skilled assistants, not only in drug dispensing, but also in the applications of the various clinical tests required by modern medical practice.

Almost equally as important—if not more so—are the possibilities of the development of pharmacists in the field of preventive medicine; that is, as aides or assistants in the exceedingly important work of Army sanitation. Pharmacists have had some training in bacteriology and disinfection, and their knowledge of chemistry and their practicability would enable them to quickly become skilled sanitary workers.

Some conception of the vital importance of sanitation in Army life may be had from a recent statement of Dr. Henry Skinner, President of the American Entomological Society (*Public Ledger*, June 16, 1917), who states that: "During the Civil War, on the Union side, 93,369 soldiers were killed, and 186,216 were the victims of disease. In the Crimean War, 4,602 were killed and 17,580 died from disease. A remarkable example of mortality from disease and low death rate from wounds is shown by the figures from the French expedition to Madagascar in 1894, 29 being killed and 7,000 dying from disease. In the Spanish-American

War of 1898, only 454 Americans were killed and 5,277 died from disease, mostly typhoid fever carried by house flies."

Dr. Skinner states, also, that "so far as we are aware, the Government has done very little to prevent a recurrence of this dreadful sacrifice of life."

The excessive mortality referred to was due, most largely, to pathogenic diseases; and as evidence of the life-saving value of modern sanitation may be cited the remarkable reduction of mortality from disease in the Army of Japan during the Russo-Japanese War.

Can the United States afford to have an Army sanitary service that is inferior to that of Japan?

In sanitary work, large numbers of men are required, more than can be spared from the overburdened medical corps. Why not train pharmacists for sanitary service and reduce the pressure upon medical men. They have had a technical training that peculiarly fits them to excel in such work.

The activities of pharmacists in the Army, if properly developed, could be directed into one or all of three channels, according to individual ability, training and experience; that is, they could serve as surgical aides, as medical aides (including drug dispensing), and as sanitary aides, according to the following scheme:

1. In Field and Evacuation Hospitals: Anesthetization, wound-washing, wound-dressing, wound-drainage, paraffin dressing, drug dispensing, shock treatment and sanitation.

2. In Base Hospitals: Same as 1, but also urinary analysis, primary bacteriologic tests, Roentgen-ray work, more drug dispensing, and dietetic work.

3. In General Hospitals: Same as 2, but also chemical assay and bacteriologic examinations of food, water, milk, body excretions, soil, etc., clinical tests, clinical surgical work (plaster Paris bandaging and other surgical dressings and appliances), toxicology and more drug dispensing.

4. In Convalescent Homes: Same as 3, but more drug dispensing.

5. In Army Pharmacological Laboratories: The testing of drugs, biologics, disinfectants, surgical dressings and chemical and pharmaceutical products of all kinds, purchased for Army use.

To enable pharmacists to act in all these lines of activity in the Army service would require additional training along surgical and medical lines. Army pharmacy training would doubtless be given by colleges of pharmacy, if desired by the Government, and the latter would doubtless be willing, in return, to detail Army physicians, surgeons and sanitarians, to give special instruction.

It is exceedingly gratifying to learn that the American Medical Association has recognized the necessity of lightening the duties and responsibilities of the Army physicians, and the possibilities of service that properly trained pharmacists in the Army can give to physicians; but this coöperation can be made effective only by expending or increasing the duties of the pharmacists in the Army and by giving them a commissioned rank.

I would suggest that the Pennsylvania Pharmaceutical Association endorse the movement for the establishment of a commissioned Pharmaceutical Corps in the Army and appoint a committee with power to coöperate with other pharmaceutical bodies working toward this same end.
