

hausted that he knew he could not last much longer.

Forced to abandon him if they were to survive, Koch, Inukitsok and Boatsman went slowly, on farther. Just as they were about to give up entirely, they killed two caribou that kept them alive until relief came from Etah.

Later in the fall, I went up to bury Dr. Wulff, but I could not find his body because of the darkness.

Dr. Wulff has done a very fine piece of work, both botanical and zoological, along the whole coast that he traversed. Koch has also done good work. He succeeded in mapping accurately the whole coast along which the party traveled, including several hitherto unknown fjords. He found the former maps inaccurate in many places. He has moreover brought back a few Silurian and Cambrian fossils from far north.

Koch is not yet (February 23, 1918) quite well, but now that we have brought him to Upernivik and the care of Dr. Bryder and the other good people here, he is fast regaining his strength and health.

This excerpt narrates without embellishment one more of the incidents that make the annals of the North so full of tragedy. The name of Dr. Thorild Wulff is one more added to the long list of heroes lost in Arctic service. Sweden may well be proud to claim him.

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#### RETIREMENT OF DEAN EDWARD H. BRADFORD OF THE HARVARD MEDICAL SCHOOL

AFTER thirty-eight years of service on the faculty of the Harvard Medical School, Dr. Edward H. Bradford, has tendered his resignation to take effect on September 1. At the Commencement exercises President Lowell announced a gift of \$25,000 from an anonymous source to found the Edward Hickling Bradford fellowship, which is to be used for research or instruction separately or in connection with any other foundation at the Harvard Medical School in such manner as the Harvard Corporation may from time to time prescribe. Dr. Frederick C. Shattuck, Jackson professor of clinical medicine emeritus, pays the following tribute to Dean Bradford in the current issue of the Harvard Alumni Bulletin:

It were unpardonable, even in these stressful days, to allow the resignation of Dr. Bradford as dean of the faculty of medicine to pass unnoticed.

Six years ago, just at the time he had freed himself from hospital work, and had also resigned the professorship of orthopedic surgery of which he was the first incumbent, putting aside the prospect of well-earned leisure and realizing that his private work was likely to suffer, he listened to the call and assumed the deanship. Almost year by year the work of the dean's office has increased with the growth of the medical school, with the expansion and complexity of its activities. It had been his intention not to hold office more than five years; but the exigencies growing out of the war, into which we had just entered, seemed to make it desirable for him to add another year.

Among the developments which have occurred during his tenure of office may be mentioned: the graduate school of medicine so ably headed by Dr. Arnold; the school of tropical medicine under Dr. Strong; the school for health officers under the joint charge of the department of preventive medicine and the Massachusetts Institute of Technology; the further extension of preventive medicine into the fertile field of industrial health and occupational disease, the plans for the opening of which in the coming September are now being laid out; entrance examinations have been revised so as to permit greater elasticity without letting down the bars. A new system of examinations leading to the M.D. degree has been applied.

The Harvard Infantile Paralysis Commission was appointed in September, 1916, following the epidemic of that summer, and is still active. As a member of the committee on education of the American Medical Association Dr. Bradford kept in close touch with nation-wide thought on this subject, and made Harvard influence felt.

It was due to Dr. Bradford's firmness that fourth-year teaching was carried on through the summer of 1917 in Harvard and Columbia, enabling students to graduate in March.

In these and many other matters, Dr. Bradford has taken initiative, or given sympathetic encouragement or guidance. There has been a notable increase in the number of students, both under graduate and graduate in the six years he has been dean. "Well done, good and faithful servant."

#### THE CHEMICAL WARFARE SERVICE

By order of the Secretary of War General Peyton C. March has issued under date of June 28, the following general orders:

I. 1. Under authority conferred by sections 1, 2, 8 and 9 of the act of Congress "Authorizing the President to increase temporarily the military establishment of the United States," approved May 18, 1917, and the act "Authorizing the President to coordinate or consolidate executive bureaus, agencies and offices, and for other purposes, in the interest of economy and the more efficient concentration of the government," approved May 28, 1918, in pursuance of which act the President has issued an executive order dated June 25, 1918, placing the experiment station at American University under control of the War Department, the President directs that the gas service of the army be organized into a Chemical Warfare Service, National Army, to include:

(a) The Chemical Service Section, National Army.

(b) All officers and enlisted men of the Ordnance Department and Sanitary Corps of the Medical Department as hereinafter more specifically specified (regular officers affected being detailed and not transferred).

2. The officers for this service will be obtained as provided by the third paragraph of section 1 and by section 9 of the act of May 18, 1917, the enlisted strength being raised and maintained by voluntary enlistment or draft.

3. The rank, pay and allowances of the enlisted men of the Chemical Warfare Service, National Army, shall be the same as now authorized for the corresponding grades in the Corps of Engineers.

4. The head of the Chemical Warfare Service, National Army, shall be known as the Director of the Chemical Warfare Service, and, under the direction of the Secretary of War, as such, he shall be, and hereby is, charged with the duty of operating and maintaining or supervising the operation and maintenance of all plants engaged in the investigation, manufacture, or production of toxic gases, gas-defense appliances, the filling of gas shells, and proving grounds utilized in connection therewith and the necessary research connected with gas warfare, and he shall exercise full, complete and exclusive jurisdiction and control over the manufacture and production of toxic gases, gas defense appliances, including gas-shell filling plants and proving grounds utilized in connection therewith, and all investigation and research work in connection with gas warfare, and to that end he shall forthwith assume control and jurisdiction over all pending government projects having to do or connected with such manufacture, production and operation of plants and proving grounds for

the army and heretofore conducted by the Medical Department and Ordnance Department under the jurisdiction of the Surgeon General and the Chief of Ordnance, respectively, and all material on hand for such investigation or research, manufacture or production, operation of plants and proving grounds, and all lands, buildings, factories, warehouses, machinery, tools and appliances, and all other property, real, personal or mixed, heretofore used in, or in connection with, the operation and maintenance of such plants and proving grounds for the purpose of investigation or research, manufacture or production, already procured and now held for such use by, or under the jurisdiction and control of the Medical Department or the Ordnance Department, all books, records, files, and office equipment used by the Medical Department or the Ordnance Department in connection with such investigation or research, manufacture or production, or operation of plants and proving grounds, all rights under contract made by the Medical Department or Ordnance Department in, or in connection with, the operation of such plants and institutions as specified herein, all rights under contract made by the Medical Department or Ordnance Department in, or in connection with such work, and the entire personnel (commissioned, enlisted and civilian) of the Ordnance Department and Sanitary Corps of the Medical Department as at present assigned to or engaged upon work in, or in connection with, such investigation or research, manufacture or production, or operation of plants and proving grounds, are hereby transferred from the jurisdiction of the Ordnance Department and the Medical Department and placed under the jurisdiction of the Director of the Chemical Warfare Service, it being the intention hereof to transfer from the jurisdiction of the Medical Department and the Ordnance Department to the jurisdiction of the Chemical Warfare Service, every function, power and duty connected with the investigation, manufacture, or production of toxic gases, gas-defense appliances, including the necessary research connected with gas warfare, gas-shell filling plants, and proving grounds utilized in connection therewith, all property of every sort or nature used or procured for use in, or in connection with, said operation of such plants and proving grounds and the entire personnel of the Ordnance Department and Sanitary Corps of the Medical Department as at present assigned to, or engaged upon work in, or in connection with, the operation and maintenance of such plants engaged in the investigation, manufacture or production of toxic gases, gas-de-

fense appliances, including gas-filling plants and proving grounds utilized in connection therewith.

5. All unexpended funds of appropriations heretofore made for the Medical Department or Ordnance Department and already allotted for use in connection with the operation and maintenance of plants now engaged in, or under construction for the purpose of engaging in, the investigation, manufacture or production of toxic gases or gas defense appliances, including gas-shell filling plants, are hereby transferred to, and placed under the jurisdiction of the director of the Chemical Warfare Service for the purpose of meeting the obligations and expenditures authorized; and, in so far as such funds have not been already specifically allotted by the Medical Department and the Ordnance Department for the purposes specified herein, they shall now be allotted by the Secretary of War, in such proportions as shall to him seem best intended to meet the requirements of the situation and the intentions of Congress when making said appropriations, and the funds so allotted by the Secretary of War to meet the activities of the Chemical Warfare Service, as heretofore defined herein, are hereby transferred to, and placed under the jurisdiction of, the director of the Chemical Warfare Service for the purpose of meeting the authorized obligations and expenditures of the Chemical Warfare Service.

6. This order shall be and remain in full force and effect during the continuation of the present war and for six months after the determination thereof by proclamation of the treaty of peace, or until theretofore amended, modified or rescinded.

II. By direction of the President, Major General William L. Sibert, United States Army, is relieved from duty as director of the Gas Service, and is detailed as director of the Chemical Warfare Service, National Army.

#### TRAINING OF COLLEGE STUDENTS FOR MEDICAL CORPS OFFICERS<sup>1</sup>

THE Medical Department of the Army, through the National Research Council, will shortly issue an appeal to American colleges and universities urging them to alter their curriculum so that third and fourth year students may receive special training which will enable them to qualify as officers and for other work in the Medical Department.

The appeal will be sent to all the principal colleges and universities in the country, but as

<sup>1</sup> Publication authorized by the War Department from the office of the Surgeon General.

it is realized that important institutions may not for various reasons receive the appeal, the request is made that all directing heads of such institutions write to either Dr. Richard M. Pearce, of the National Research Council, Washington, or to the Division of Laboratories, Office of the Surgeon-General, Washington, for details of the proposed plan.

These colleges will render valuable assistance to the government by offering these special course to their students who will enter the Army when they become of age or in the event that they volunteer before that time. The students desired are those who are taking the various scientific courses. The course proposed by the Medical Department should appeal to men who are specializing in biology, zoology, plant pathology, and in industrial and agricultural bacteriology.

In a number of institutions the necessary courses can be arranged by a simple modification of the already existing course in bacteriology with added emphasis on special subjects of value to the Army.

After completing such courses arrangements for enlistment can be made through the Surgeon-General's Office if the applicant is under draft age, and if of draft age he can be inducted into the service and assigned where his special training will be of value.

This plan has already been tested in two colleges and the success attained has led the Medical Department to apply it to as many colleges as possible. From one such institution every man taking the modified course was admitted directly into the Army and went to one of the training schools, where a portion of them will later qualify for commissions in the Sanitary Corps. Others have qualified for positions at field or mobile laboratory units and as assistants in base and evacuation hospitals.

#### SCIENTIFIC NOTES AND NEWS

DR. JAMES F. NORRIS, who has been with the Bureau of Mines Experiment Station, has been commissioned a lieutenant-colonel in the Chemical Service Section of the National Army and is to be stationed in London as the