

still doubtful, although the tide of battle was flowing strongly in our favor. Necessarily, therefore, it gave precedence to industries engaged primarily in the service of war. The present exhibition, on the other hand, is meant to show the triumphs of British industry in the arts of peace, and to bring home to the general public the importance of the relationship between science and industry, and also between education and research.

In this connection Lord Crewe dwelt on the desirability of introducing definite industrial courses for university students in technology, such courses to be taken in vacations at suitable works connected with the particular study the student is undertaking. Such an arrangement has worked with great success in the United States. The institution of industrial fellowships for post-graduate students attached to one or other of the universities would also have an important influence in keeping industries in touch with modern scientific developments, and, in addition, provide the country with highly trained technologists. The Department of Scientific and Industrial Research is endeavoring to do something on these lines by urging the establishment of industrial manufacturing associations which will carry on research in some particular technical branch.

The exhibits themselves are almost bewildering in their comprehensiveness. Practically every phase of British industry is represented, the various exhibits being divided into the following eleven sections: Mechanical Science, Physics, Textiles, Electrical Appliances, Medicine and Surgery, Paper and Illustration, Agriculture, Chemistry, Aircraft, Fuels and Metallurgy.

THE BRITISH PARLIAMENT AND MEDICAL RESEARCH

THE "Dogs' Protection" Bill, which was introduced by Sir Frederick Banbury and was greatly altered on report at the instance of the government, came up for third reading in the House of Commons on June 27. The third reading was formally proposed by Sir F. Banbury.

According to the report in the *British Med-*

ical Journal Sir Watson Cheyne asked the House to say that it declined to proceed further with the measure, which would impose an unnecessary and vexatious obstacle to medical research. While recognizing the value of the amendment carried by the government as an alternative to the bill itself, he held that it introduced a very great obstacle to research. The task of getting the additional certificate which was required as the bill now stood ought not to be imposed. Another reason why he objected to the bill was that it involved a very grave censure upon a large body of honorable men and on a great profession; for this censure there was no justification. The bill in its present form implied that cruelty was being practised, and that the medical profession delighted in torture and could not be trusted to deal with animals. At one time he had certificates and licenses, and later he became one of those responsible for signing certificates. At the time that he sought licenses he found it difficult to get the second signature, and when the certificates were obtained they had to be taken to the Home Office, and used to lie there for some considerable time before they were gone through. Under the bill it was proposed to have further restrictions and another certificate, which was to be got in order to show that no other animal was possible for the experiment except a dog. It would be necessary not only to persuade the informed people but also the Home Secretary, who perhaps knew little about this particular department of science, that the experiment was necessary. Thus a very great difficulty would be added to many existing difficulties, and delay would be caused. In maintaining that the fresh restrictions were unnecessary, Sir Watson urged that those in responsible positions as to these matters lived up to their responsibility. He had known the danger of delay, and had tried to make the decision the same day; but he had more than once refused certificates, either that he thought the research was not a good one, or because he thought the man seeking to undertake it had not had sufficient preliminary education for such important work. The suggestion of

the Antivivisection Society, that the duty of deciding as to the grant of certificates was not satisfactorily discharged, was disgraceful. Sir Watson next referred to the principle arguments raised against experiments on dogs. It was said that if there was anything of value to be learned it could be obtained by observations on patients and by *post-mortem* examination. As an illustration how wrong that opinion was, Sir Watson spoke of the situation which occurred when the Germans first used gas. Personally, he was much alarmed, for if the enemy had gas enough, it seemed to him they could easily destroy whole armies. How was that risk to be dealt with? Were the authorities to sit down and wait while the doctors watched gassed men and waited for a *post-mortem* examination? Had experiments on dogs not been made much valuable time would have been wasted and many lives would have been lost. But certain experiments on animals—dogs and goats—were made and complete protection was quickly found against the gas. The history of medicine was full of instances of prolonged observations of patients and of *post-mortem* examination, without result. Yet results had been achieved almost at once by experiments on animals. In conclusion, he urged that at a time when health bills had just been placed on the Statute Book the sensible thing to do would be to sweep away restrictions instead of imposing fresh ones.

Sir Philip Magnus, in seconding the amendment, said that by the rejection of this bill Parliament would show its appreciation of the efforts that had been made by scientific men through researches to prevent and cure diseases. The bill was inconclusive and contradictory. For example, it appeared, as he read the first clause of the bill, that if some eminent surgeon desired to perform an experiment on a dog, which would relieve it of great pain and possibly save its life, he could not perform this experiment, however urgent, without a certificate from the Home Office. After further discussion in favor of and against the bill, it was defeated by a vote of 101 to 62.

A BILL FOR A NATIONAL DEPARTMENT OF HEALTH

HONORABLE JOSEPH I. FRANCE, U. S. Senator from Maryland and chairman of the Senate Committee on Public Health and National Quarantine, introduced on July 17, Senate Bill 2,507 creating a department of public health. The bill follows the general plan of the Owen Bill, with some important modifications.

According to the summary in the *Journal* of the American Medical Association it provides for a department of public health under the direction of a secretary, who shall be a member of the cabinet, and for three assistant secretaries, the first assistant to be a man trained in medical science, public health and sanitation; the second to be an expert in vital statistics, and the third to be a woman trained in medicine or nursing and public health. The U. S. Public Health Service and the Bureau of Chemistry are to be transferred to the new department, which is also to have bureaus on vital statistics, sanitation, hospitals, child and school hygiene, quarantine, food and drugs, nursing, tuberculosis and personnel. The secretary of public health is directed to communicate with the governor of each state requesting him to recommend to the legislature suitable legislation with adequate appropriations to secure cooperation between the federal department of public health and the state board of health. Every state taking such action is to be entitled to its proportionate share of such funds as may be appropriated by Congress for carrying out the provisions of the act. The secretary of public health is also directed to divide the United States into health states, districts, subdivisions and precincts, each conforming to the geographical boundaries of the various political divisions. Each state is to create a state board of health with a state health officer and a health officer for each district, subdivision and precinct, the secretary of public health to appoint these state officers as federal health officers "so that in each cooperating state every health officer of said state or of each district, county or precinct therein is by virtue of his selection by the