tional relations." (Nature, October 21.)

A new international order, going far beyond the League of Nations in its claims on individual nations, is advocated. At the end of the war all nations prepared to renounce war between themselves would unite under a federal

government, which would have power to use armed force against aggression, control raw materials of undeveloped territories, undertake the education of backward communities without racial discrimination.

Science News Letter, November 25, 1939

GENERAL SCIENCE

## British Scientists Will Not Be Wasted in This War

## Research Workers Considered in Reserved Occupations And Will Not Be Permitted To Sacrifice Themselves

By DR. VICTOR COFMAN

Science Service London Correspondent

**B**RITISH scientists have been indexed and classified, but not regimented.

A voluntary register, containing upward of 80,000 names, has been prepared, giving qualifications and type of work for which the specialists are best fitted.

This register was begun by the Royal Society and by various scientific and technical associations and has now been taken over and amplified by the National Service Department of the Ministry of Labour. It is available to the War Department who notify their requirements for trained personnel to appropriate Committees in charge of the register. Industrialists in need of specially trained men can also apply.

"British science is in a very much stronger position now than in 1914, especially as regards the number of trained men," Prof. J. C. Philip, told me. He is acting head of the Imperial College of Science and Technology of the University of London and chairman of the Industrial Chemistry Section of the Central Register of Scientists.

## Earth Trembles

Information collected by Science Service from seismological observatories resulted in the location by the U. S. Coast and Geodetic Survey of the following preliminary epicenter:

Monday, November 13, 2:45.8 a.m., EST

Near Lake Cushman, in Washington, southwest
of Mt. Ellinor. Latitude, 47 degrees, 33 minutes north. Longitude, 123 degrees, 16 minutes

west.

Tuesday, November 14, 9:53.8 p.m. EST
In New Jersey, 15 miles southeast of Wilmington,
Del. Latitude 39 degrees, 45 minutes north.
Longitude, 75 degrees, 18 minutes west.
For stations cooperating with Science Service,
the Coast and Geodetic Survey, and the Jesuit
Seismological Association in reporting earthquakes recorded on their seismographs, see SNL,
Oct. 28.

Although there is a surplus over present requirements, nevertheless the government has decided not to repeat the mistake of 1914 when brilliant young scientists were allowed to join the fighting forces indiscriminately. Physicists still remember with regret the loss of Moseley, whose brilliant career in X-ray research was cut short at Gallipoli.

Scientists and research workers are considered to be in reserved occupations and those not engaged in war work may continue their usual activities. At the same time, while full freedom is allowed to the individual, steps have been taken to inform research workers of the type of urgent problems that await solution. Some of these are of long duration, others have arisen since the war.

The "blackout" has called for scientific development. For instance, more effective phosphorescent substances were needed for use in underground shelters. Suitable "light filters" that would allow daylight in while preventing artificial light from passing outwards are being sought. Similarly gasoline restrictions make important devices for increasing miles per gallon, and alternative types of fuel are being exploited.

The Chemical Society has formed an advisory Research Council under the chairmanship of Sir Robert Robinson, to advise research workers in universities and other research institutions concerning general war problems needing investigation.

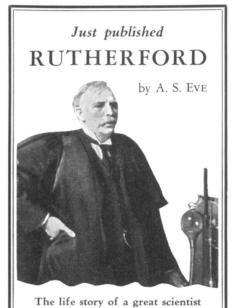
Another set of problems, which for the time being are left to the initiative of unofficial groups like Political and Economic Planning and the Engineers' Study Group, are those likely to arise at the end of the war. Large surplus capacity for the production of light metals, explosives, etc., will exist at the end of the war, and this, as well as the workers engaged in those industries, will have to find other utilization.

British industry has at present a considerable reserve of trained personnel in the German, Austrian and Czech scientists who have sought refuge in Great Britain. They have so far been employed in their particular lines of work only to a slight extent.

During the last war it was a "non-Aryan" chemist, Dr. Fritz Haber, who enabled Germany to fight a prolonged war by his development of a synthetic process for the manufacturing of ammonia and nitrates, essential in the manufacture of explosives. Haber died in Switzerland, an exile from Nazi Germany. The Nazis will miss the many other Habers they have sent into exile, when faced with inevitable shortage.

Have scientists any surprises in store in the present war? Faced with this question, Prof. Philip smiled and replied: "It is not a question that I could very well answer; however, this much I can say: during the last war it was the chemist who produced some of the most unpleasant innovations, such as the use of the poison gases. It may be the physicists' turn now."

Science News Letter, November 25, 1939



This authorised biography tells of Rutherford's humble beginnings, his early experiments, and his great and triumphant dis-

coveries.

At bookstores \$5.00 THE MACMILLAN COMPANY