portant as a carpenter's knowledge of his tools, Brown is offering courses in partial differential equations and numerical and graphical methods of applied mathematics.

If Hitler's code and the war have done anything on the credit side for this country, it has been to drive scholars and research men across the Atlantic to the free colleges and universities here. The men who are teaching at Brown, including those who years ago refused to work with the Nazis, are among the best that Europe has produced.

There are Prof. Willy Prager and Prof. Richard von Mises, both of whom left Germany and went to the University of Istanbul when Hitler rose to power. Prof. Prager, in pre-Hitler days, was acting director of the Institute of Applied Mechanics of the University of Gottingen, structural inspector for the German Airsport League and scientific adviser to the Fiesler Aircraft Company, one of Germany's largest plane manufacturers.

Prof. von Mises' field is the theory of aeronautics. His research as professor at the Technological Institute in Dresden and as director of the Institute of Applied Mathematics at the University of Berlin was an outstanding contribution to the development of modern aircraft efficiency.

Prof. Stefan Bergmann is a Pole. Before coming to the United States he was an instructor and lecturer at the Institute of Applied Mechanics at the University of Berlin, and taught at the Technological Institute of Tomsk. Part of his research was done for the German Department of Airplanes. Prof. Willi Feller, a German, is the former head of the Institute of Applied Mathematics at the University of Kiel, and has taught for many years at the University of Stockholm.

From Canada has come Ireland-born Prof. John L. Synge, head of the Department of Applied Mathematics at the University of Toronto. Prof. Synge commutes by plane every week-end between Providence and his home city.

Prof. Jacob D. Tamarkin, a Russian, is one of the editors of *Mathematical Reviews,* an international journal of higher mathematics published at Brown. Before coming to the United States in 1925 he taught at the Electro-technical School of Petrograd and at the Petrograd School of Railroads.

What Brown has done so far has been made possible through the support of the United States Office of Education and the Carnegie Corporation.

Plans are being prepared to make the program a permanent one.

Science News Letter, March 21, 1942

PUBLIC HEALTH

Major Typhus Epidemic In England or Germany Unlikely

In Addition to Focus of Cases, Big Epidemic Depends On Disorganized Population; Delousing Effective

A MAJOR epidemic of typhus fever is unlikely in either England or, for the present at least, in Germany proper, even though the disease is widely prevalent, according to reports in German-occupied countries and in Spain and perhaps in northern Africa.

Lice spread the disease, but it is not solely attention to cleanliness, and therefore fewer lice, that will help protect England and Germany from typhus fever epidemics.

Two other factors are essential for the development of a major typhus fever epidemic: 1. A focus of typhus fever cases from which the lice can spread the disease; 2. A disorganized population.

"No big epidemic of typhus fever has ever taken place unless, in addition to lice and a typhus focus, there was also a badly disorganized population," Dr. R. E. Dyer, newly-appointed director of the National Institute of Health, U. S. Public Health Service, said emphatically.

Dr. Dyer is an authority on typhus fever, having established the fact that endemic typhus fever in the United States is spread by the rat flea, instead of the body louse which spreads European typhus.

War, famine and civil revolutions are the conditions necessary for the kind of disorganization of populations that is the third factor required to fan typhus fever into a large epidemic.

Famine certainly is not present in England nor, according to reports, in the Reich proper. War has failed to disorganize the population in England and there are no reliable reports of any such disorganization in Germany.

Steps must, of course, be taken and apparently are being taken to prevent the spread of typhus to the populations in England and Germany from soldiers returning from tyhus fever areas and from war prisoners and refugees.

Delousing is one effective measure of preventing the spread of typhus fever. It was extensively practiced among the armies on the Western Front in World War I. Troops in the trenches could be frequently relieved and sent to the rear for short periods for delousing. Such a procedure is not practical under conditions of open warfare.

Those who survive an attack of typhus fever are immune to the disease. This is believed to give the Russians some advantage at present, since large numbers of men in the Russian army now may have acquired immunity to typhus during the epidemic in Russia between 1917 and 1921. The Germans are not immune.

Vaccines against tyhus fever have been developed, but so far none has proved satisfactory. One developed by Dr. Herald R. Cox, of the U. S. Public Health Service, is being tested in Bolivia. It is too early for results of these trials to be known. No typhus fever has as yet been reported among either vaccinated or unvaccinated in the haciendas where the vaccine is under trial.

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Calcium carbonate, in the form of precipitated chalk, is used as an abrasive in tooth pastes and powders, and in silver polishes.

Onyx is calcium carbonate colored with a mixture of limestone and clay.