

GENERAL SCIENCE

As War Bars Science Advance Scientists Plan For Peace

Where War and Intolerance Have Not Inhibited Research Campaigns Are Waged for Intellectual Freedom

By WATSON DAVIS

WAR, which drains the energies and brains of mankind for destruction, is the major blot on the current record of science. Where armies are not actually fighting, intolerance and regimentation continue to take their toll of intelligence.

In invaded areas, as Poland, scientific institutions have been damaged or destroyed. The ranks of intellectual refugees have been increased by war and dictatorship, enriching some nations at the expense of others.

In Germany, for example, there are only four universities still operating and those are under strict Nazi control.

In America, enhanced appreciation of research's value to industry was apparent, and surveys were begun of our science facilities for use in an emergency. A government appraisal found research to be an important national resource.

Under the influence of war in the rest of the world, the republics of the two Americas drew closer together in science and cultural pursuits as well as in commerce. Preparations were begun for the Eighth American Science Congress which next May will bring the scientists of the New World into joint convention at Washington.

While scientists in warring nations aided military operations, many of them looked forward to helping the world make peace. A manifesto by fellows of London's Royal Society called for a new international order after the war, going far beyond the League of Nations in its claims on individual nations.

Leading educators and scientists in America campaigned for preservation and extension of democracy and intellectual freedom. The American republics arranged strengthened intellectual bonds, planning exchanges of professors, teachers and students, facilitating interchanges of literature, art, etc.

Geneticists at a world congress urged a plan for improving the world's population and making genius every man's

birthright, through birth control, conscious selection, medical care especially for mothers, and improved economic and social conditions.

There was better appreciation of the need of better nutrition and better distribution of protective foods, in all parts of the world, even among peoples not actually feeling hungry.

Emphasis upon the dangers and uses

POPULATION

Russia's Men of Fighting Age Outnumber Finland's 35 to 1

THE fighting-age man power of Russia is thirty-five times that of little Finland, figures made public by the Population Association of America reveal.

Even if Finland's 924,000 men between the ages of 15 and 44 were augmented by Sweden's 1,513,000, Norway's 701,000, and Denmark's 896,000, the total strength would be but 4,034,000 against which Russia could oppose 32,019,000—eight times as many.

The man power of Russia is much greater than that of any other European nation. England, with her colonies, has a total of 16,017,000 between 15 and 44, only half of Russia's strength. France has 8,730,000.

Italy, the strongest European neutral, if Russia can be considered to be dropped out of that category, has 9,344,000.

Poland's total population of 31,915,800 was divided so that Germany took 19,915,600 and Russia 12,000,200. Poland's men of fighting age number 8,248,000, but the division of the younger men may not be in the same proportion as that holding for the total population, because probably a larger percentage of the German Poles are in the older age groups.

The weakness of the Baltic States in opposing Russia is shown by figures which reveal that Estonia, Latvia and

of propaganda and explanation of mental techniques involved may have provided beneficial prophylaxis against false and dangerous thinking.

Industry was faced with difficulty in getting supplies from overseas due to war. Chemists arranged to make substitutes for many materials that might become scarce. The government began to build stock piles of essential tin, manganese, chromium and other materials that might be lacking if war affects America to a greater extent. Ready to cooperate with the rest of the world as conditions allow, America began to live more self-containedly.

With determination to do its share in bringing order and peace to the world, in order that civilization may be saved and progress may continue, science moves forward into the difficult days of 1940.

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Lithuania have a combined man power of not many more than one million of fighting age.

Complicating the problem of raising fighting men for those nations who engaged in the World War is the fact that the men who are now 21 to 25 years old, generally considered the best age for fighting, were born during the years of the World War. Births at that time were greatly reduced in number.

In Germany, including Austria and the Sudetenland, estimates indicate that there are 2,370,000 men aged 20 to 24 but 3,370,000 younger boys from 15 to 19 and 3,520,000 from 25 to 29.

Science News Letter, December 23, 1939

RADIO

Developing New Device For Ultra-Short Radio

THE KLYSTRON, new device for producing ultra-short radio waves of great power and stability, is being developed at Stanford University, the Sperry Gyroscope Company cooperating. Hailed as most important advance in radio since the invention of the audion tube in 1906, the klystron probably will be first used as source of radio waves for guiding airplanes in blind landings.

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