

PSYCHIATRY

Psychiatrists of 30 Nations Issue Warning Against War

Dutch Physicians Take Lead in Campaign Against Surrender of Civilization to War Psychosis

PSYCHIATRISTS of the world have begun a campaign against the surrender of our civilization to the insanity of war.

That the people of the world may be headed for a "war psychosis" is the solemn warning contained in a document signed by 339 psychiatrists from 30 nations.

The Netherlands Medical Association sponsors the document and has formed a Committee on War Prophylaxis.

Copies of the scientific warning against war have been sent to leading statesmen, particularly in Europe.

The document warns statesmen that twentieth century man still possesses strong, fierce and destructive instincts which break loose as soon as the community to which he belongs feels itself threatened by danger.

The complete text of the statement by 339 psychiatrists of 30 countries to the statesmen of the world, warning against the threat of war, is as follows:

Complete Text of Psychiatrists' Statement

WE PSYCHIATRISTS, whose duty it is to investigate the normal and diseased mind, and to serve mankind with our knowledge, feel impelled to address a serious word to you in our quality of physicians.

It seems to us that there is in the world a mentality which entails grave dangers to mankind, leading, as it may, to an evident war-psychosis.

War means that all destructive forces are set loose by mankind against itself.

War means the annihilation of mankind by technical science.

As in all things human, psychological factors play a very important part in the complicated problem of war.

If war is to be prevented the nations and their leaders must understand their own attitude towards war.

By self-knowledge a world calamity may be prevented.

Therefore we draw your attention to the following:

1. There is a seeming contradiction between the conscious individual aversion to war and the collective preparedness to wage war. This is explained by the fact that the behaviour, the feelings, the thoughts of an independent individual are quite different from those of a man who forms part of a collective whole. Civilized twentieth century man still possesses strong, fierce and destructive instincts, which have not been sublimated, or only partly so, and which break loose as soon as the community to which he belongs feels itself threatened by danger.

The unconscious desire to give rein to the primitive instinct not only without punishment but even with reward, furthers in a great measure the preparedness for war.

It should be realised that the fighting-instinct, if well directed, gives energy for much that is good and beautiful. But the same instinct may create chaos if it breaks loose from all restraint, making use of the greatest discoveries of the human intellect.

2. It is appalling to see how little the peoples are alive to reality.

The popular ideas of war as they find expression in full dress uniforms, military display, etc., are no longer in keeping with the realities of war itself.

Apathy Surprising

The apathy, with regard to the actions and intrigues of the international traffic in arms is surprising to anyone who realises the dangers into which this traffic threatens to lead them. It should be realised that it is foolish to suffer certain groups of persons to derive personal profit from the death of millions of men.

We come to you with the urgent advice to arouse the nations to the realisation of fact and the sense of collective self-preservation, these powerful instincts being the strongest allies for the elimination of war.

The heightening of the moral and religious sense in your people tends to the same end.

3. From the utterances of well-known



FROM A GREAT HEIGHT

Viewed from ordinary eye-height, a carpet of moss has an astonishing likeness to a forest of pines or spruces seen from an airplane. But the comparatively huge fern leaf betrays the forest as one in the land of Lilliput. Photo by C. H. Eiffert.

statesmen it has repeatedly been evident that many of them have conceptions of war that are identical with those of the average man. Arguments such as "War is the Supreme Court of Appeal" and "War is the necessary outcome of Darwin's theory" are erroneous and dangerous, in view of the realities of modern warfare. They camouflage a primitive craving for power and are meant to stimulate the preparedness for war among the speaker's countrymen.

The suggestive force of speeches made by leading statesmen is enormous and may be dangerous. The warlike spirit, so easily aroused by the cry that the country is in danger, is not to be bridled, as was evident in 1914.

Peoples, as well as individuals, under the influence of suggestions like these, may become neurotic. They may be carried away by hallucinations and delusions, thus involving themselves in adventures perilous to their own and other nations' safety.

Sufficiently Advanced

We psychiatrists declare that our science is sufficiently advanced for us to distinguish between real, pretended, and unconscious motives, even in statesmen. The desire to disguise national militarism by continual talk about peace will not protect political leaders from the judgment of history. The secret pro-

motors of militarism are responsible for the boundless misery which a new war is sure to bring.

International organization is now sufficiently advanced to enable statesmen to prevent war by concerted action.

Protestation of peace and the desire for peace, however sincere, do not guarantee the self-denying spirit necessary for the maintenance of peace, even at the cost of national sacrifice. If any statesmen should think that the apparatus to ensure peace is, as yet, insufficiently organized, we advise them to devote to

this purpose as much energy and as much money as is now being expended on the armaments of the various countries.

We cannot close without expressing our admiration of those statesmen who show by their actions that their culture and morality are so far advanced that they can lead peoples to a strong organization of peace. In our opinion they alone are truly qualified to act as the leaders of nations.

Science News Letter, October 26, 1935

MEDICINE

Human Influenza Virus Grown Artificially in Glass

THE virus that causes human influenza has been cultivated upon non-living food in a glass flask.

This important step in understanding a disease that has caused widespread epidemics in recent years is announced by Drs. Thomas Francis, Jr., and Thomas P. Magill of the Rockefeller Institute for Medical Research in a communication to the journal *Science* (Oct. 11).

Only last May Drs. Francis and Magill told the medical world that influenza virus, a substance beyond the reach of the microscope in size, had been definitely identified and that the same virus causes the disease in different parts of the world.

Now they have satisfied themselves by careful tests upon mice that the dangerous transmitting virus will thrive and multiply upon non-living material in a glass flask, or "in vitro," as the scientists say.

The infection used came originally from a human patient in Puerto Rico, and this virus is known as "P. R. 8." A mouse was infected and died of the disease. Material from his diseased lung was used to give the disease to another mouse and this was repeated until there had been 44 serial passages.

Then attempt to grow the virus in the laboratory, not in the living animal, in vitro instead of in vivo, was made. Lungs of the 44th afflicted mouse were ground, and then diluted with a special liquid, which was whirled at great speed and filtered through a fine porcelain substance to remove the slightest trace of anything that the microscope can detect. A few drops of this liquid were planted upon a special food—"medium" the scientists call it—made from chick embryos. Ordinary tests for

bacterial growth detected nothing.

But when mice were inoculated in the nose with the fluid from the first, the third and in all 20 serial transfers to the artificial medium, they contracted influenza just as surely as other animals who were inoculated with similar quantities of virus that has never had to grow outside the living body. So:

"These facts indicate clearly that the virus has multiplied in vitro."

Important to possible development in the future of anti-influenza procedure for use in human cases, is the fact that the artificially cultured virus is inhibited in causing the disease by the specific anti-influenza immune serum, demonstrated previously to be present in the blood of animals recovered from cases of influenza.

Science News Letter, October 26, 1935

PHYSICS

Electric Lamp Lighted Without the Use of Wires

See Front Cover

CLEVER lighting and modern radio technique combine to provide the cover on this week's SCIENCE NEWS LETTER.

The General Electric scientist holds an ordinary electric bulb in his hands and makes it shine mysteriously without any wires to provide the ordinary electric circuit. Secret of the trick is a high-frequency radio transmitter hidden below the large ring at bottom of picture. The radio energy given off is picked up by the antenna system composed of the scientist's arms and body which form a loop.

Science News Letter, October 26, 1935

CHEMISTRY

Super-Hard Glass Made In Sun Furnace

A NEW type of "glass" of super-hardness and with high resistance to acids was reported before the meeting of the Electrochemical Society by Dr. Willi M. Cohn of the University of California.

The "glass" is fused transparent zirconium dioxide (ZrO_2) having a slightly yellowish tinge. It was made by melting compressed sticks of ZrO_2 in a special sun surface which concentrates sunlight with a large mirror and quickly raises the temperature to 3,000 degrees on the Kelvin temperature scale. Three thousand degrees Kelvin corresponds to more than 2,700 degrees Centigrade.

The zirconia glass can be heated to incandescence and dipped into cold water without cracking, is highly resistant to acids and ranks next to carborundum in hardness.

The sun furnace, with which the zirconium dioxide sticks were melted and fused, is a new step in obtaining high temperatures, Dr. Cohn reported. While it is difficult to determine exactly what temperatures such sun furnaces will create, the theoretical limit is the temperature of the sun's surface at 6,000 degrees Kelvin, or 10,000 degrees Fahrenheit.

The sun furnace, which Dr. Cohn obtained from the Zeiss Works in Jena, Germany, consists essentially of a large plane mirror which follows the course of the sun and reflects the sunlight onto a 100-inch diameter searchlight mirror with a silver backing.

The heating takes place at the focus of the searchlight mirror. Arrangement is made for observation of the samples while being heated. If necessary the sample can be placed in a transparent container and its reactions studied in a reducing or neutral atmosphere or in a vacuum.

"Although this sun furnace means a step in advance as far as obtaining higher temperatures for exact work is concerned, it does not, however, enable us as yet to extend the upper limits of high-temperature research by more than one or two magnitudes over the older limits. Higher temperatures, in an oxidizing atmosphere, than those possible in the sun furnace may have been attained in the past, but, if so, it was for a mere fraction of a second and not for any length of time suitable for the fusion of relatively large masses of material," declared Dr. Cohn's report.

Science News Letter, October 26, 1935