PSYCHIATRY

Anti-War Prescription

The nation's psychiatrists suggest ways to relieve the present dangerous psychological features which are producing international tensions.

➤ AN ANTI-WAR prescription has been written by the nation's psychiatrists.

As medical doctors, they see war as a plague. Their prescription for stopping it calls for, among other things, mutual confidence between leaders of the people in all countries.

The anti-war prescription also calls for each nation to examine rigidly its own motives and for national leaders to watch out for their own personal feelings of hate. Such feelings of aggressive hostility are present to some extent in everyone. Leaders of a nation particularly need to "sublimate" them, that is, to transform such feelings into constructive action.

Part of the psychiatric anti-war prescription calls for both leaders and the general public to support the World Health Organization and UNESCO.

The prescription was written by a committee of the American Psychiatric Association under the chairmanship of Dr. George H. Stevenson, superintendent of Ontario Hospital, London, Ont. Dr. William C. Menninger of Topeka, Kans., is president of the association and Dr. Daniel Blain, of Washington, is its medical director.

In a statement addressed both to the general public and national leaders in all countries, the association points out that "emotions of fear and greed, cultivated to unhealthy degrees, can lead only to delusions of persecution, to hostile aggression (defensive and offensive) and ultimately to World War III. They state in part:

"The American Psychiatric Association is seriously concerned about the unfortunate psychological features which are a part of the present international tensions. It believes it has a duty to offer a statement on these matters for the attention of national leaders in all countries and for the general public, whose health and welfare are intimately related to international tensions.

"The American Psychiatric Association makes this statement because psychiatrists strive to understand the psychological causes of difficult and faulty interpersonal relationships and should be able to offer some advice on their improvement. Such knowledge and advice should be applicable whether the adjustment difficulties are between individuals or groups of individuals, even national groups of individuals.

"We would point out that mutual confidence between leaders of the people in all countries, combined with mutual honesty, mutual forbearance, mutual support—positive healthful attitudes, conveyed from the leaders to their followers—should lead to a higher, better and healthier civilization than any we have known in the past.

"It should be pointed out, too, that the elimination of war as a public health menace can only be achieved by rigid self-scrutiny of national motives, by the refusal to accept or give spurious rationalization for unfriendly behavior, and by conscious achievement of sublimation of the leaders' personal aggressive hostility, which is present to some extent in everyone.

"For the development of better mental health citizens of various countries, the United Nations has set up subsidiary agencies which should be valuable in attaining this objective. One of these is the World Health Organization, which is concerned with the best possible health of people in its physical, mental and social aspects. Another organization is UNESCO, one of whose objectives is the solution of social tensions, including international tensions, by the efforts of the social scientists in all countries, pooling their knowledge, experience and effort. The American Psychiatric Association urges national leaders and the general public to support both of these organizations in their efforts to provide better mental health between nations."

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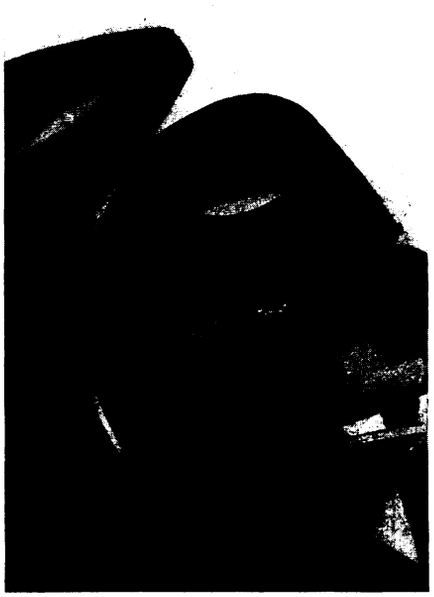

JET POWER UNVEILED—This is the first released photograph of the General Electric TG-180 (Allison J-35) jet engines which power the Martin XB-48 six-jet plane. Three jet engines are mounted in each wing of the Air Force bomber. Cowling on two of the engines have been raised to permit inspection and give some idea of how 4,000 pounds of thrust is produced by each engine.

ENGINEERING-CHEMISTRY

Liquid Hydrogen Motor

➤ THE hydrogen that carries balloons to great heights may some day take rockets into the outer space beyond the pull of gravity. But it will be liquid hydrogen, and the rocket will carry liquid oxygen to permit combustion. The liquid hydrogen is the fuel; the liquid oxygen is the oxidizing agent.

A rocket motor utilizing liquid hydrogen and liquid oxygen has been in experimental use at the Ohio State University in Columbus, O., for over a year. This test motor, no larger than a human hand, produces a thrust higher than that developed by the engine of the average small airplane. Its exhaust jet nozzle emits gases at a speed of around 15,000 miles an hour.

Hydrogen is said to be the most powerful chemical fuel known to science. When it is cooled to 423 degrees below zero Fahrenheit, it becomes a liquid at atmospheric pressure. Making liquid hydrogen is not an easy process; this temperature is only approximately 37 degrees above the probably unobtainable absolute zero, where all motions of the hydrogen molecules are supposed to cease.

Calculations show that liquid hydrogen, used in combination with an efficient oxidizer, such as liquid oxygen, will provide sufficient energy to accelerate a vehicle to the speed required to break away from the earth's gravitational pull, scientists at the university state. Rockets using liquid hydrogen are therefore the type that may be used to reach the moon, or to move around the earth like a satellite.

The liquid hydrogen motor was an achievement of the university's Cryogenic Laboratory, under the direction of Prof. H. L. Johnston, who developed low temperature research at the institution, and Marvin L. Stary, chief engineer of the motor project. The laboratory has advanced facilities for liquefying hydrogen, and also to produce liquid helium, the most difficult gas to liquefy. Other laboratories are experimenting with liquid hydrogen for power, but Ohio State claims the distinction of originating the use of liquid hydrogen as a rocket motor fuel.

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