

MENTAL HYGIENE

# Public Health Workers Plan Campaign on Mental Diseases

## Will Start Drive With Children Because Mental Disease Is Usually Acquired During Childhood They Explain

**P**UBLIC health workers are lining up their forces for a fight to the finish on mental illness. Those valiant disease fighters who have brought under control such foes of mankind as smallpox, typhoid fever and diphtheria, laid plans at the meeting of the American Public Health Association for the attack on mental sickness, which fills half the hospitals beds in the country.

The drive will start with efforts to promote mental health in children. School physicians and teachers hold the key positions, it appears. Mental disease, it is agreed by mental hygienists, is mainly acquired in childhood, Dr. A. O. DeWeese, director of health at Kent (Ohio) State Normal College, stated.

"It is a family disease," he continued, "in the same sense that tuberculosis was a family disease in that some adult has communicated it to the child by prolonged and repeated exposure during a period of weak resistance."

Since it is agreed that mental patterns are laid down in childhood, the prevention of mental disease becomes a problem of leadership and guidance on the part of psychiatrists in the schools and home, he pointed out.

From one-tenth to one-half of mental maladjustments are perhaps preventable, Dr. Frederick L. Patry, psychiatrist of the New York State Education Department, pointed out.

Dr. Patry presented a ten-point pro-

gram for the guidance of health officers and school physicians in their drive to prevent mental disease.

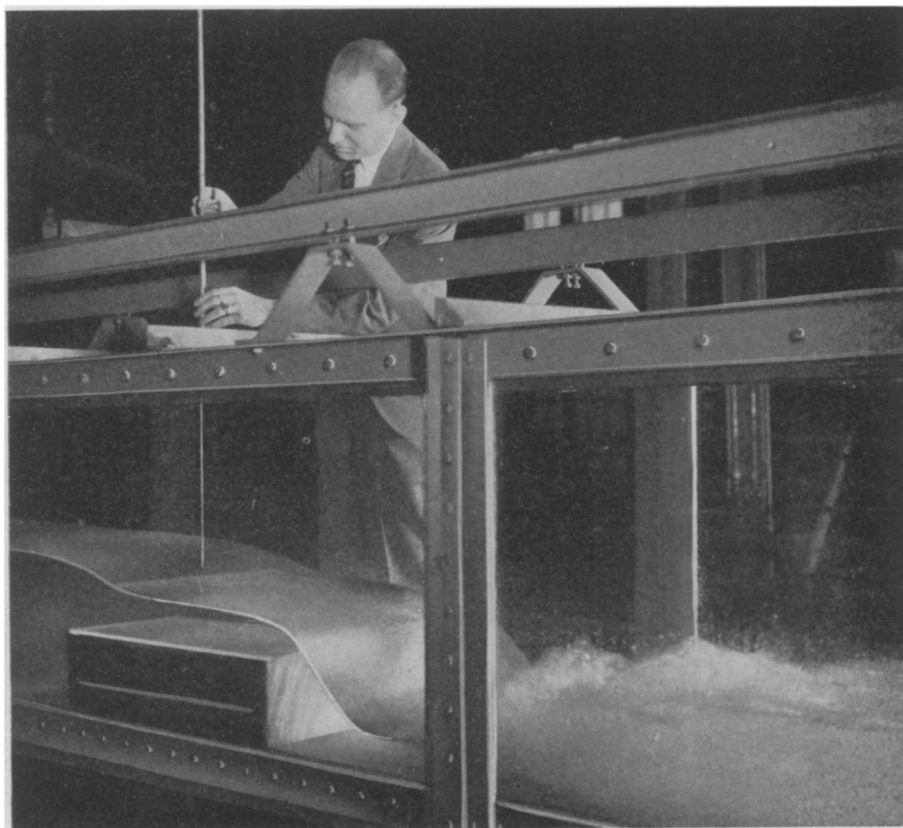
One point is that the school physician should pay special attention to every child who is failing at school, who is a misfit in the group, or who is unhappy and protesting his unhappiness with "nerves."

"No child wants to fail," Dr. Patry declared, "Failure means only one thing: that someone has blundered; someone has failed to show the child off to advantage on his own level of ability to succeed."

Another of Dr. Patry's ten points related to the importance of the home. This is the most important educational institution of society with respect to mental health, he said. Every effort must be made to see that every child has this part of his birthright guaranteed.

"If the start of life's journey is well prepared, we have little fear of maladjustments later on, although it must be kept in mind that human machinery may go awry at any point along the life span," he said.

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### MAN-MADE RIVERS

*Glass walls on the side of the new experimental flume of the University of Minnesota enable hydraulic engineers to study water flow typical of rivers, canals and other open channels. Prof. L. G. Straub, engineering experiment laboratories, is shown above observing water levels in flow over a sharp obstacle.*

ENGINEERING

## Canal System Studied In New Hydraulic Laboratory

**W**ATER flowing through glass-walled channels in the hydraulic laboratories of the University of Minnesota is aiding engineers to determine the stability of sand dams being constructed in connection with the canalization for navigation of the Upper Mississippi River.

The sixty-foot long experimental flume has glass on the sides and bottom through which hydraulic engineers observe swirls, eddies and flow conditions with a wide range of water velocities and depths.

High water and flood conditions can be simulated by the equipment, explains Prof. L. G. Straub of the engineering experiment laboratories, under whose direction much of the hydraulic research is being carried out.

"Instantaneous closing gates as well as head-regulating gates are arranged at both ends of the channel, thus providing the possibility of studying a large variety of flow phenomena. The arrangement allows for the simulation of flow conditions in canals and rivers, the effect of abrupt or gradual gate opening at ship locks, and the like.

"The introduction of coloring mat-

ter into the water at various points along the stream assists materially in studying flow conditions.

"The channel is provided with a sediment-intercepting basin at the discharge end so as to allow for observations of the erosion, transportation, and deposition of sediment by flowing water.

"Although the apparatus is quite new, a number of investigations have been made therein which indicate the variety

of tests which are possible. These include studies of the stability of the sand dams being constructed in connection with the canalization for navigation of the Upper Mississippi River, the design of flood regulating works for various hydroelectric developments, experimental investigation of the mechanics of the hydraulic jump, hydraulic bore, waves of various types, and the like."

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#### ASTRONOMY

## New Hubble Asteroid Is Not In Usual Path of Planets

**S**TILL another fragment of what may be a shattered planet which once traveled around the sun in an orbit between Mars and Jupiter has been found by observations of Dr. Edwin P. Hubble of Carnegie Institution's Mt. Wilson Observatory. The previously unknown astronomical object, found on photographic plates taken by Dr. Hubble in the course of other astronomical investigations, is an asteroid: a tiny planet whose diameter is probably from ten to a few hundred miles.

Ordinary asteroids are not particularly interesting to astronomers. Orbits on some 1,300 of them are known, and estimates place the probable total number which could be photographed with a great telescope like the Mt. Wilson 100-inch at perhaps 40,000.

Asteroids and minor planets are so common, in fact, that most astronomers agree with the late Professor Weiss of Vienna, who used to speak of them as "the vermin of the sky." The total mass of all the "vermin," if they were lumped together, would make a planet less than 800 miles in diameter.

Dr. Hubble's asteroid, however, has one characteristic, strikingly different from the other 1,300, which attracted his attention to it.

### Not in Same Plane

The Hubble asteroid, instead of going round the sun pretty much in the same plane as the earth and other planets do, was found to be moving in an orbit whose plane is inclined at nearly 39 degrees to the ecliptic. Only one asteroid is known to have a larger inclination: Hidalgo, with an inclination of 43 degrees.

It was this surprising feature of the new asteroid which attracted Dr. Hubble's attention.

Most plausible of all the theories advanced to account for the origin of asteroids is that of Sir James Jeans, British astronomer who is research associate of the Carnegie Institution.

Sir James suggests that the gravitational pull around each planet produces a "danger zone" around it. Another astronomical body approaching too closely to such a zone may be literally pulled apart. Originally there may have been a small planet, between Mars and Jupiter which came into some danger zone, probably that of Jupiter, and began breaking up in consequence until now nothing is left of it but tiny fragments, the asteroids.

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#### PUBLIC HEALTH

## Disease Hazards of Africa Also Menace United States

**M**ANY of the tropical diseases which may prove the Number One enemy of the Italian army in Ethiopia are a serious hazard to life and health right here in the United States. A warning to physicians and health officers even in cities as far removed from the tropics as Milwaukee, to be on the alert for cases of these diseases was sounded by Dr. M. Fernan-Nunez, of Marquette University School of Medicine, at the meeting there of the American Public Health Association.

Patients suffering from malaria, relapsing fever, dengue fever, and from the parasitic worms of the tropics are to be found in cities all over the United States. Tapeworms, liver flukes and malaria parasites taken from patients in Milwaukee were shown by Dr. Fernan-Nunez in an exhibit on tropical diseases which received a certificate of merit

from the Association's committee on scientific exhibits.

The tiny liver fluke which Dr. Fernan-Nunez showed under the microscope is the same disease-producing parasite that defeated Napoleon's men in Egypt, Dr. Fernan-Nunez pointed out. Malaria, which has already claimed a war correspondent in Ethiopia, is reappearing in northern American cities as a result of the increase in decorative rock gardens. This disease, one of the white man's chief enemies in the tropics, kills five million people every year throughout the world, a number equivalent to the entire population of Ireland, Dr. Fernan-Nunez commented. Over three hundred million people suffer from it annually.

Raw hamburger and raw fish are another source of danger, since they may harbor tapeworms. These and other worms which scientists classify as parasites cause more disease and deaths every year than the group of organisms known as bacteria, which are responsible for diseases like pneumonia, tuberculosis and diphtheria, Dr. Fernan-Nunez said.

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#### MEDICINE

## Questions the Value of Care Before Childbirth

**A** QUESTION as to the relative importance of prenatal care for the expectant mother was raised by Dr. Margaret Tyler, Yale University medical school professor, at the meeting of the American Public Health Association.

Obstetrical care at the time the child is born may play by far the greatest part in improving the outcome for the mother, a survey reported by Dr. Tyler indicated. Groups of patients receiving contrasting amounts of care and supervision during pregnancy but attended at childbirth by the same obstetrician were studied.

The outcome at labor was strikingly similar for the contrasting groups, revealing no definite superiority on the part of those who had the more extensive care, Dr. Tyler reported.

The better prenatally cared for group was found to include an excess of complications of pregnancy, many of which had apparently prompted the seeking of extra care. This same group revealed an excess of complications of labor, the ratio of which to those in the poor-care group did not appear to have been markedly altered from the ratio noted in pregnancy.

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