

PSYCHOLOGY

Study Eating Pattern to Prevent Mental Illness

► WHEN SCIENTISTS understand better the meaning of the way people eat, they may be able to cure many different psychological disorders and thus reduce the amount of mental and emotional sickness.

This prediction was made by Dr. William Kaufman of Bridgeport, Conn., at the meeting of the American Association for the Advancement of Science in St. Louis.

For example, in times of emotional stress many people will drink more milk or eat more ice cream and cheese. They are, Dr. Kaufman said, unconsciously increasing their intake of "security foods."

People who are thwarted or have failed to gain the approval of others, or who feel sorry for themselves, may unconsciously seek gratification by eating more "reward foods" such as chocolate, hot dogs, candy or nuts.

Some persons have the unconscious need to emphasize their adulthood through "overdetermined use of grown-up foods such as coffee, tea or beer, foods which once upon a time were forbidden to most of us," Dr. Kaufman said.

By watching which categories of foods people eat and how they eat, whether they pick at their food, gulp it down, send it back to be cooked more or differently, and so on, psychologists can, Dr. Kaufman thinks, learn more about the individual's unconscious needs and thus be better able to help him with his problems.

Merely furnishing foods that contain recommended allowances of nutrients, such as vitamins, minerals and so on, is not enough, he said, to insure good nutrition and good emotional balance.

Science News Letter, January 10, 1953

ASTRONOMY

Ringed Planet Saturn Larger Than Realized

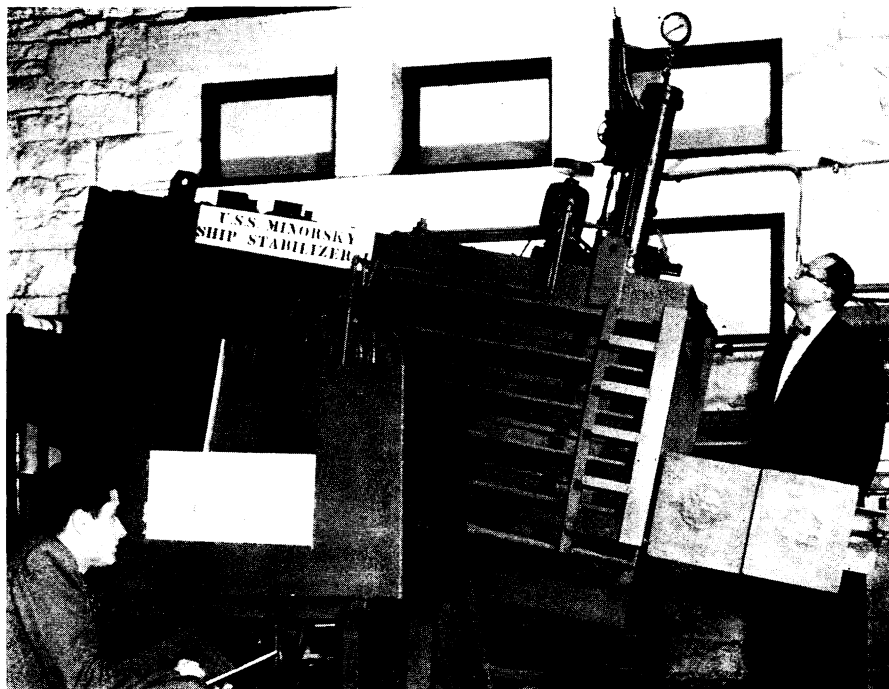
► SATURN, THE ringed planet, is larger than people have realized.

Latest calculations show that this planet, its rings and satellites, is 95.33 times as bulky as the earth. Saturn is now visible shortly after midnight as a first magnitude object in the constellation of Virgo, the virgin.

The mass of the Saturn system is 1/3497.64 as great as that of the sun, Dr. Hans G. Hertz of the U. S. Naval Observatory told fellow members of the American Astronomical Society meeting at Amherst College Observatory, Amherst, Mass. This is significantly higher than the value of 1/3501.6 now in use, he pointed out.

The new value is based on observations made from 1884 to 1948 of the path the giant planet Jupiter followed in its orderly wanderings among the stars, and of exactly how much Saturn pulled Jupiter out of its orbit around the sun, Dr. Hertz said.

Science News Letter, January 10, 1953



"HEAVY SEA" IN MINIATURE—The "U.S.S. Minorsky" rolls in a "hurricane," duplicating the real thing on a one-fifth scale. By turning a switch, engineers at Stanford University can activate a built-in automatic stabilizer and eliminate the rolling motion in seconds. Water tanks on each side, connected by a large pipe, rush water into whichever tank is on the rising side to give an even keel.

PHYSIOLOGY

Mixed Sex Mice

► IN THE same year that the world was set agog by news of a former GI undergoing surgery and hormone treatment to become a girl, scientists found a "surprisingly large number" of mixed sex cases in a well known and highly pure strain of white mice.

Further studies of these mice, the scientists told the American Association for the Advancement of Science meeting in St. Louis, "may shed light on sex asymmetry in man."

The mice have female structures on one side of the body and male structures on the other. Scientists call them gynandromorphs, meaning they have both female (gyn) and male (andro) form (morph). A total of 17 of these mice have been obtained so far, three of them still alive. Of those that died, one showed mixed sex on one side. In the others, the side which was male was left about as often as right.

For the strain as a whole, less than one in 100 is a mouse of mixed sex, but in matings producing such mice they have occurred about six in 100 times.

In the fruit fly, *Drosophila*, it is possible to produce gynandromorphs, or "sex mosaics," by eliminating one of the two sex chromosomes after the first division of the fertilized egg. Fruit flies have no known sex hormones.

Whether the gynandromorphic mice developed their mixed sex condition on the same basis as the fruit flies, that is, by loss of one sex chromosome after the first division of the fertilized egg, is not known.

Scientists reporting the mixed sex mice were Profs. W. F. Hollander, John W. Gowen and Janice Stadler of Iowa State College, Ames, Iowa.

Science News Letter, January 10, 1953

AERONAUTICS

By-Pass Jet Engine Adds More Thrust to Exhaust

► A NEW TYPE power plant for speedy jet airplanes has been revealed in London. It employs what is called a "by-pass" system which feeds air into the jet pipes to lower the temperatures of the propulsion gas and give it greater thrust.

In this type of engine only a part of the air picked up by the in-takes is compressed and sent through the combustion chamber. Another part by-passes the combustion chamber, enters the jet pipe behind the engine and mixes there with the combustion gases to give higher propulsion efficiency and lower fuel consumption on the Rolls Royce Conway engine.

Science News Letter, January 10, 1953