

MEDICINE

Chemical for Insane

► NEW hope for a chemical conquest of insanity is held out by preliminary results with a combined vitamin-hormone treatment reported in the *LANCET* (March 25).

The treatment markedly improved all types of mental disorders except the neuroses, Drs. E. H. Cranswick and T. C. Hall of Runwell Hospital report.

The vitamin used is ascorbic acid, also known as vitamin C, the anti-scurvy vitamin of citrus and other fruits and vegetables. The hormone is deoxycortone, from the adrenal gland cortex, a cousin of the famous anti-arthritis hormone, cortisone.

Fourteen out of 16 schizophrenics, depressives and manics who had been sick less than one year became more rational and cheerful for a week after a single injection of the vitamin and hormone.

After a series of injections, the improvement has persisted for three months so far.

The physicians believe further trials of this treatment are warranted.

Cortisone and ACTH, the pituitary gland hormone which stimulates the adrenals to produce cortisone, have already been suggested as possibly beneficial in mental disorders, especially depressions. This is on the basis of the marked cheerfulness, or euphoria, noticed in arthritis patients getting either of these hormones, and the belief that the adrenal gland is involved in mental sickness. Trial of ACTH for mental sickness is reported under way in at least one clinic in the United States.

Scarcity of both cortisone and ACTH limit the possibilities of their use in both mental disorders and arthritis. The combination of vitamin C and deoxycortone, both available in plentiful supply, has, however, already been reported effective as a substitute for cortisone in arthritis.

Science News Letter, April 1, 1950

GENERAL SCIENCE

Scientifically Armed Sub

► THE BRITISH submarine H.M.S. *Talent* will sail from Malta early in May armed to the teeth . . . with weapons of peace-time science.

Its job for Britain's Royal Society will be to measure the pull of gravity on the floor of the Eastern Mediterranean.

Geologists hope the results will give them a key to an apparent paradox in earth movements in the Mediterranean basin. The coast of Africa to the south is thought to have remained virtually unchanged over millions of years. Yet Italy, Greece and Turkey to the north have undergone great changes in recent geologic times, evidenced by earthquakes and still-active volcanoes.

The Royal Navy will get answers of another sort. Calculations will be made of "sea slope" in the Mediterranean which often throws ships navigating by the stars off course.

Scientists know that large masses of material, such as mountains, attract the sea toward them. The surface of the sea near the Island of Cyprus, for example, "slopes" down away from the land enough to cause half-mile errors in navigational fixes.

Because sensitive instruments can be taken below the layer of waves and turbulence on the surface, a submarine can survey gravitational differences, or anomalies as they are called, where a surface ship would fail. The chief apparatus, a complex pendulum which must have a steady platform, was invented by the Dutch geologist Dr. F. A. Vening Meinesz and first used by him in a submarine in 1926.

Gravitational differences, although infinitesimal, can reveal large masses of rock or minerals below the sea bed and help chart submerged geologic structures.

The expedition is to be directed by scientists of Cambridge University.

Expected to take two months, its results will involve reading nearly a third of a mile of detailed photographic records.

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MINING

Brazil Oil Shale Deposits May Solve Fuel Problem

► BRAZIL is looking toward its extensive oil shale deposits to find local fuel to solve its industrial and economic problems, the U. S. Bureau of Mines revealed in Washington.

This American agency, which stands in

the forefront in developing the use of domestic oil shale, has made a recent investigation of Brazil's deposits. Its findings have just been made available in a report which can be obtained free from its Publications Distributing Section, Pittsburgh, Pa. The title is "Oil Shale in Brazil."

Oil shale and other rocks from which oil can be obtained have been found in 10 Brazilian states. The chief development work has been done in the Tremembe-Taubate area deposits. This is in the State of Sao Paulo.

As early as 1881, oil shale from this deposit was used to make illuminating gas. Although used only intermittently since 1897, a battery of 20 retorts was converted to the making of oil from shale following the recent war. Oil yields as high as 36.5 gallons per ton of shale were recovered from Tremembe shales in the U. S. Bureau of Mines laboratories, Laramie, Wyo.

Science News Letter, April 1, 1950

Words in Science STATICS-KINETICS

► STATICS and kinetics are two major branches of the science of mechanics that tells you what happens when a solid material is pushed, pulled, twisted or squashed—when forces are applied to it.

Statics is at work when the particle or object doesn't move. A force one way is exactly matched by an equal force the other way. The object sits still and takes it.

If the forces are not equal, the object must move, jump, slide or twirl in answer to the greater exertion of energy upon it. Kinetics, sometimes called dynamics, will tell you how it will move, the effects of the unbalanced forces.

A third term, closely related, is kinematics. That is the science of motion itself, without regard to forces or bodies of matter.

Science News Letter, April 1, 1950

Sky writing is proposed which will use seven airplanes flying in straight formation; the center plane will send radio signals to activate smoke apparatus on the others, releasing smoke dots to outline block letters.



WYOMING

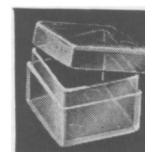
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