

PHYSIOLOGY

Brain Waves Still Go On Fifteen Minutes After Death

Scientists Hope From This Experiment To Learn More About Function of Nervous Tissue Like That in Brain

BRAIN WAVES go on after death. A four-man team of research scientists announced this discovery at the meeting in Boston of the Federation of American Societies for Experimental Biology. The scientists do not think this is a sign that brain activity of conscious, thinking variety continues after death. But the experiments may lead to a greater knowledge of how nervous tissue like the brain functions.

The experiments were reported by Dr. Morton A. Rubin, Dr. Hebbel E. Hoff, Dr. Alexander W. Winkler and Dr. Paul K. Smith, of the Worcester, Mass., State Hospital and Yale University School of Medicine.

Brain waves are the records of electric currents discharged during brain activity, which scientists have been using in the study of such disorders as epilepsy. They were hailed, when first discovered, as being likely to throw as much light on brain functioning as familiar electro-

cardiograms shed on heart function.

The discovery that these brain waves, and therefore the brain activity responsible for them, continue after death may make it necessary to revise some of the ideas of what the brain waves mean.

In cats, the scientists reported, brain waves continued for fifteen minutes after the animals had stopped breathing and their hearts had stopped beating. The deaths were of a rather special kind, even in these days of high explosives and other lethal devices. The deaths followed injections of calcium, potassium or magnesium.

In death due to the cutting off of oxygen or of the blood supply to the brain, the brain waves stop within a few seconds. After the chemical deaths, the waves continued for fifteen minutes and might have gone on longer if the scientists had been able to continue their observations for a greater period.

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BOTANY

Scarce Drug and Food Herbs Can Be Produced in West

Shortage of Four Most Important Vegetable Drugs Could Be Made Up From Less Than 1,000 Acres

WAR has caused an acute shortage in plants used for drugs, insecticides and cooking herbs, yet all that we are missing of the four most important vegetable drugs could be supplied from less than 1,000 intensively cultivated acres, Prof. William J. Bonisteel of Fordham University's botany department told the meeting of the Herb Conference in New York.

The pre-war supply of these small but important quantities of pungent and potent plant products came from a large number of sources. The war cut off the supply from more than 50 countries, and reduced our total drug im-

ports from overseas by over 55%, Prof. Bonisteel stated.

Amateurs were warned against plunging optimistically into the breach, despite the fact that all the missing drugs and related products can be raised somewhere or other in the Western Hemisphere. Finding congenial soils and climates is a job for skilled botanists rather than inexperienced beginners.

The four drugs that could be raised in sufficient quantities to supply all U. S. needs on 1,000 acres are digitalis, belladonna, stramonium and henbane. Of digitalis, standard heart remedy, we need only as much as can be raised on 100

acres; to meet the needs of all Western Hemisphere countries only 200 acres would be enough. A large number of growers are raising digitalis now, and will probably meet the demand quite adequately.

Belladonna was raised in quantity last year, but the quality was low. For the 1942 season a New York firm is undertaking an ambitious program of supervised cultivation by a number of growers. Henbane also seems to be on the way to successful domestic production.

Stramonium is a product of the common jimsonweed, that grows wild in great abundance. Prof. Bonisteel suggested that Boy and Girl Scouts might perform a patriotic duty and at the same time raise funds for their troops by collecting it.

Some of the other drug plants that can be satisfactorily cultivated either in this country or elsewhere in the Hemisphere include castor oil beans, ginger, orris root, citronella, henna, ergot, and the numerous pungent seeds of the anise-dill-fennel group.

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Important in Cosmetics

HERBS are important not only in the medicines that help us to get well when we are sick, but also in cosmetics that aid Milady's beauty. Some of their uses were outlined before the meeting by Miss Mala Rubinstein, of Helena Rubinstein, Inc. Women have used herbs for cosmetic purposes since the earliest days of civilization, and even our prim Victorian great-grandmothers, far from banishing them as frivolous, cultivated them assiduously.

Among the herbs most favored in modern cosmetic practice are rosemary, sage, chamomile, wild pansy leaves, fennel and roses. And, believe it or not, nettles are an ingredient of an effective hair wash!

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Goldfish can survive freezing of the water they swim in.

Oysters grow best in waters with strong tides or currents to carry food to them.

A maker of children's games and orange squeezers has *converted* his plant for the production of gauges, dies and bullet punches, according to the War Production Board.