

PSYCHIATRY

Hypnosis Aids Memory

► HYPNOSIS HAS helped doctors treat a patient brought to Wayne County General Hospital, Eloise, Mich., suffering from complete loss of memory.

No organic cause, such as brain injury, could be found for the memory loss. Psychologic and psychiatric tests showed that the patient, a man about 30 or 35 years old, was a dependent, suggestible character, laden with anxiety, and with an hysterical type of personality.

Some experience with fire had apparently had a severely injurious effect on him emotionally. He told the doctors, "Every time I see red, I see fire. I can't explain it. If I could explain that, I could explain everything. Truthfully, I wish I could."

Under hypnosis, the patient was able to give his name, age, residence and past history. It turned out that several years ago he had been forced to leave home by a stepfather who was trying to get the property the patient's mother had left to the patient. He finally gave up the unequal struggle with the stepfather and step-

brothers and went away in an attempt to "forget" it all.

The property settlement could not be made without the patient's consent, so the stepfather evidently tried to find the patient at each place he worked and made him more unhappy.

One of these places was a farm where a fire broke out. The patient and a fellow worker tried to get the cattle out of the barn and in the course of this, the fellow worker was burned. The patient felt very guilty about his "buddy's" death.

After his memory was restored, the patient was referred to a position on a farm where he could be constantly supervised and guided, since he apparently needed much reassurance to keep from getting unbalanced more seriously. He has been doing well in this protective atmosphere.

The case is reported by Drs. Sanford M. Izner and Rudolf Leiser and Mr. John Goldman in *Diseases of the Nervous System* (Oct., 1953).

Science News Letter, January 2, 1954

PALEONTOLOGY

Fill Eohippus History

► GAPS IN the history of eohippus, or dawn horse, prehistoric ancestor of the horse, will be filled by fossil skulls found in Colorado, Dr. George G. Simpson, chairman of the American Museum of Natural History department of geology and paleontology, predicted in New York.

Hailing the fossil find as "one of the most important ever made," Dr. Simpson said the eohippus skulls were included in fossils taken from a deposit in the Huerfano Valley, northwest of Walsenburg, Col. The deposit promises to be the richest single find known of mammals of the Eocene epoch, dating from 50,000,000 to 60,000,000 years ago, he said.

Eohippus was a small animal ranging in size from 10 inches high to about half the size of a Shetland pony. Only a few skulls have been discovered previously and all were imperfect.

Dr. Simpson described the Colorado skulls as "practically perfect." He also indicated that several skeletons, each more complete than the four partial skeletons previously assembled, may be put together.

The bones were so thick in the rock at the site that, to avoid damaging them in the field, many were taken out in a single large block of rock and bones weighing about two tons. This rock has been opened at the Museum, but the process of removing the bones without injury may take several years, Dr. Simpson pointed out.

Knowledge of eohippus has been incomplete in the past due to the scarcity of good

fossil material. Dr. Simpson said that paleontologists will now have a basis for comparison on which to make judgments about range of variation in the dawn horse.

Dr. Simpson said that full identification would be delayed, but "we already know that at least eight different kinds of early mammals are represented in the quarry."

The site of the excavation was originally discovered in the summer of 1952. During the past summer, workers returned for more excavation. Numerous fossils remain and more field work is planned.

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HORTICULTURE

Rules May Ease Soil Conditioner Confusion

► GETTING THE right soil conditioner for your lawn, garden or, if you are a farmer, for your pastures and crops should be easier in the future.

Misrepresentation in the advertising and selling of these materials, which has led to confusion and disappointment for gardeners and farmers, will be ended, it is hoped, by rules to be promulgated by the Federal Trade Commission.

Discussions have now started on a preliminary set of rules presented to industry representatives for their consideration by David R. Stauffer, attorney in the division of trade practice conferences of the Commission.

Soil conditioners are a recent agricultural development. They improve the physical properties, or tilth, of the soil, which makes it easier to cultivate.

At the Washington conference, industry representatives disagreed as to how the term soil conditioner should be used. Some wanted it to refer only to synthetic organic chemicals; some wanted a broader definition to include chemically modified natural materials; and one group wanted the rules to apply to all soil conditioners including peat, humus, gypsum and other natural products.

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PHYSICS

Electricity Flows Freely In A-Bomb Debris Metal

► A METAL that is contained in the debris of atomic bombs has been discovered to be unusually superconductive.

Element 43 in the periodic table, technetium has been proved in experiments to be one of the metals that allow electricity to flow through it almost without hindrance when the temperature is close to absolute zero.

Dr. J. G. Daunt of Ohio State University and Dr. J. W. Cobble, formerly at Oak Ridge National Laboratory and now at the University of California's Radiation Laboratory, did the experiments that showed that this metal becomes superconductive at the relatively high temperature of 11.2 degrees on the absolute scale. Their results are reported in the *Physical Review* (Oct. 15, 1953).

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ENTOMOLOGY

High-Speed Photograph Stops Fly in Flight

See Front Cover

► THE UNUSUAL high-speed photograph of the common housefly in flight, shown on the cover of this week's SCIENCE NEWS LETTER, was made by Everett L. Gayhart in his home laboratory in Kensington, Md. Using an exposure of one hundred-thousandth of a second, Mr. Gayhart was able to make the fly—which moves at 170 wing beats a second—appear as though it is motionless.

To keep it in position, the fly was knocked out with a whiff of ether and then attached to a rod by a tiny drop of cement placed on its back. A stream of air was then blown toward the fly, which promptly pulled up its legs and beat its wings as if in flight.

Mr. Gayhart, a research scientist at the Applied Physics Laboratory of The Johns Hopkins University, Silver Spring, Md., uses high-speed schlieren photography to study the development of flames in their first millionths of a second of life.

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