

The U. S. State Department uses fingerprints in an unusual way. Passports for use of Americans in Europe these days must bear a fingerprint, but it is not the fingerprint of the person holding

the passport. It is the imprint of the thumb of an official in the U. S. State Department, and it is assurance that the passport is genuine.

Science News Letter, July 20, 1940

MEDICINE

Hormone Bank Treatment Gives "Miraculous" Results

Synthetic Chemical Buried Under Skin Relieves Case Of Muscular Weakness, Effect Lasting for Months

"CLOSE TO MIRACULOUS" results from the hormone bank treatment of the chronic progressive disease of muscular weakness, myasthenia gravis, are reported by Dr. Robert C. Moehlig, of Detroit. (*Journal, American Medical Association*, July 13)

The treatment consisted in burying under the patient's skin little pills of desoxycorticosterone acetate, a synthetic chemical believed to be the same as the cortical hormone produced by adrenal glands.

The pills or pellets of this substance act like a bank of the hormone material on which the body can draw for its daily needs. This treatment with the synthetic adrenal hormone chemical was first used for patients suffering from another ailment, Addison's disease, which is an adrenal gland disorder.

The case Dr. Moehlig reported was that of a 32-year-old physician. Like other sufferers from myasthenia gravis, this patient got out of breath, weak and tired on the slightest exertion. The history he

wrote of his own case states that he "could hardly raise his arms to shave or comb his hair. The weight of the head and shoulders and the effort to hold himself upright seemed intolerable."

He had trouble in swallowing and talking, and felt "utterly exhausted" and quite drowsy most of the time.

Injections of the synthetic hormone chemical definitely relieved the weakness and fatigue, starting five hours after the injection. The effect, however, was only temporary, so it was decided to give the patient a more lasting supply by implanting pellets of the chemical to create a hormone bank.

"The effect of the pellet implantations has been close to miraculous in its sustained and complete relief of symptoms," Dr. Moehlig states.

No symptoms of the disease were noticeable three and one-half months after the pellet implantation. The supply implanted last October was calculated to last 450 days.

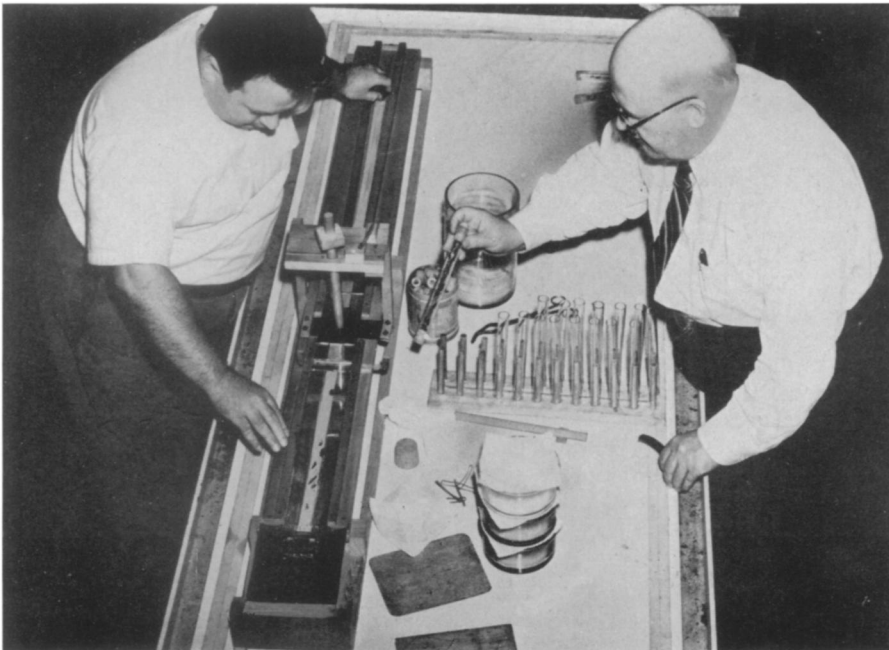
"Naturally," Dr. Moehlig cautions, "further experiences with other patients as well as the continued progress of this patient are desirable before final conclusions concerning lasting benefits are made."

Dr. Moehlig gives several reasons for trying the Addison's disease treatment in the case of myasthenia gravis. For one thing, loss of strength and fatigue are in a general way outstanding symptoms of both conditions, although in myasthenia gravis the tiredness comes only when the muscles affected by the disease are called on for sustained effort. The patient's past history, furthermore, indicated muscular weakness and a congenital predisposition to disturbance of muscle metabolism, and both the pituitary gland and the cortex of the adrenal glands are concerned with muscle metabolism.

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Glue made of potato flour is a German wartime product.

The explosive power of gasoline, fire chiefs were recently told, is 83 times that of dynamite.



AIR CONDITIONING FOR INSECTS

Because insect pest will not breed readily when the temperature is too high or too low, special air conditioning equipment devised by the General Electric Company has been installed at the New Jersey State Experiment Station, New Brunswick, N. J., to assure a supply for study. A temperature of 72 degrees is maintained in winter and 75 degrees in summer, while the humidity is kept at 73 per cent., just right for roaches. Dr. T. J. Headlee, head of the entomology department of the station, is shown above (right) with an assistant, studying some of the insects produced under these ideal conditions.

● RADIO

Dr. C. Hawley Cartwright, of the Massachusetts Institute of Technology, will describe "Invisible Glass" as guest scientist on "Adventures in Science" with Watson Davis, director of Science Service, over the coast to coast network of the Columbia Broadcasting System, Thursday, July 25, 4:00 p.m., EDST, 3:00 EST, 2:00 CST, 1:00 MST, 12:00 PST.

Listen in on your local station. Listen in each Thursday.