

MEDICINE

Cortisone Helps Skin

➤ **HERE'S A** new possibility for cortisone: the treatment of acute skin diseases.

The drug has been used in such experiments by Dr. Thomas H. Sternberg and Victor D. Newcomer of the University of California at Los Angeles Medical School.

It has been found effective in relieving neuroderatitis and certain skin allergies. When treatment is stopped, however, complete relapse usually occurs.

"This kind of treatment for skin diseases is still very much in the experimental stage," they emphasize. "It should be used with great caution because of possible harmful effects still not known."

The most disappointing feature of cortisone therapy for skin diseases was the mental depression accompanying relapse.

In explanation they said that patients were elated over finding a long hoped for cure for their affliction. Then, when cortisone therapy was discontinued and the relapse occurred, they requested or demanded more cortisone. When it was not given, they became morose and depressed.

"At the present state of our knowledge of cortisone treatment, we believe that it has a limited usefulness, namely, in the control of severe cases which have occurred despite the use of all conventional methods of therapy," said Dr. Sternberg.

"Even in these instances, the drug should be discontinued as soon as possible. We also believe cortisone should not be used in mild or moderate cases of skin disease."

Science News Letter, October 6, 1951

METEOROLOGY

New Rain Forecast System

➤ **A NEW** system of forecasting whether it will rain "day after tomorrow"—already in operation in the Washington-Baltimore area for the three winter months—will be used during the month of October. It promises a considerably greater degree of accuracy than was achieved before.

In tests, the system, described by R. C. Schmidt, a forecaster at the Weather Bureau's National Airport station in Washington, has worked out to an accuracy of 90% correct.

Mr. Schmidt and other forecasters have been working on application of the method to other months of the year and, before long, it is expected that the system will be in use the year round not only in Washington, but also in the area made up of Tennessee, Kentucky, Ohio, Virginia, West Virginia, Pennsylvania, Maryland, Delaware, New Jersey and New York.

The system, as applied to October, uses the same fundamental principles as are

used to forecast rain day after tomorrow in the three winter months. The forecasters determine the variables in the weather pattern over a wide area of the nation which usually produce rain in Washington and Baltimore.

However, for October, it was found best to discover those variables in the weather pattern which usually prevented rain. When those were present, a "no rain" prediction is made, when they are not "rain" is predicted. It works 90% of the time.

The flow of the weather and the atmospheric pressure at Nashville, Tenn., Sault Ste. Marie, Mich., and Washington enter into determining whether or not it will rain in Washington and Baltimore the day after tomorrow.

Mr. Schmidt describes the new system in the Weather Bureau's **MONTHLY WEATHER REVIEW** (June).

Science News Letter, October 6, 1951

SURGERY

Ream Out Blood Clots

➤ **A TECHNIQUE** for reaming out clots, calcium deposits and the entire linings of major blood vessels in patients with hardening of the arteries was reported by two University of California School of Medicine surgeons at the International Surgical Society meeting in Paris.

The technique is an improvement on an operation first developed by French surgeons and reported three years ago. The Californians reported the first American use of the operation, in 20 patients, on one-fourth of whom the improved technique was used.

The French surgeons originally found that it was possible to slit arteries lengthwise, ream out the diseased lining, sew the remaining outer wall together again, and restore circulation in many cases in which clots had caused heart attacks. However, clots reformed in some cases.

The California surgeons transplant a tough sheath of tissue from the leg, wrapping it around the reamed arterial wall. This prevents bleeding through the wall, strengthens the blood vessel, and makes the operation safer. Local use of heparin reduces reformation of clots.

In some of the California cases, the abdominal aorta, the big vessel leading from the heart to the lower extremities, has been reamed out successfully. In two cases gangrene had started because of lost circulation to the lower extremities. The operation restored circulation and the gangrenous limbs recovered. Gangrene usually has meant amputation.

The surgeons, Drs. Jack Wylie and Orland Davies, expressed the opinion that the procedure will find increasing use in the treatment of clots in hardening of the arteries.

Science News Letter, October 6, 1951

PUBLIC HEALTH

Nation's First EI Men Ready to Fight BW

➤ **THE NATION'S** first EI men have taken up their stations and now stand guard against germ warfare if it should be used against us.

The EI men are officers of the U. S. Public Health Service specially trained for its newly organized Epidemic Intelligence Service. Besides being prepared to detect and help fight germ warfare used by an enemy, they will assist in any disease outbreaks that get beyond the resources of state and local health departments to control.

The 21 EI men have been assigned to posts in the following 12 states: Arizona, California, Georgia, Kansas, Louisiana, Maryland, Massachusetts, New York, Ohio, Pennsylvania, Texas and West Virginia.

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INVENTION

Lightweight Aggregate From Volcanic Ash

➤ **A LIGHTWEIGHT** aggregate to replace the usual heavy gravel used in making concrete is made by treating certain by-products of the phosphate mining industry but can use similar material from other sources. The material is a phosphatic volcanic ash.

This by-product of the pebble phosphate deposits of Florida bloats or expands with the production of many small cells or pockets when heated to temperatures of 1600 to 2100 degrees Fahrenheit.

A process of making a lightweight aggregate for concrete from this phosphatic volcanic ash brought patent 2,569,323 to Poole Maynard of Atlanta, Ga. In his method the ash after drying is made into pellets which are fired in a rotary kiln for about ten minutes at a temperature above 1600 degrees Fahrenheit. The bloated pellets are then crushed. The resulting product has a weight around 25 to 30 pounds per cubic foot, as compared with the usual gravel which weighs about 125 to 150 pounds per cubic foot.

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