

MEDICINE

Cheap Leprosy Treatment

Trials of DDS, diamino diphenyl sulfone, to start soon in South Africa, will show if it is as good and safe a drug for leprosy as other, more expensive sulfones.

► THE QUESTION of whether DDS is as good and safe a drug for leprosy as some other, more expensive sulfones may be settled through trials soon to be started in the Philippines and South Africa.

DDS is the short name for diamino diphenyl sulfone. First synthesized in 1908, it was considered too toxic to use in human patients until last year. Then, as reported by SCIENCE SERVICE, Dr. John Lowe of the Nigerian Leprosy Service announced good results with a dosage schedule he found did not harm the patients.

Other scientists since then have not gotten the same results. Because the daily cost of treatment with DDS is one-twentieth that of other sulfones, thousands of poor natives afflicted with leprosy could be helped if the drug proves safe and effective.

The new trials, which may settle the matter, will be carried out under the auspices of the Leonard Wood Memorial, Washington, D. C.

Several other sulfones that appear promising for leprosy treatment and also some

drugs used in treatment of tuberculosis which might stop leprosy will be tested, Dr. James A. Doull, medical director of the Leonard Wood Memorial, told SCIENCE SERVICE.

Reason for trying tuberculosis drugs is that the germs causing tuberculosis and leprosy are somewhat alike and what stops one may stop the other. The sulfones, most promising leprosy medicines now, were tried in tuberculosis but were not as effective in this disease as streptomycin and PAS, or para aminosalicylic acid.

Trials of the sulfones and other drugs will be made with the aid of a \$34,085 grant from the U. S. Public Health Service, just announced, in addition to donations of the drugs from the manufacturers and the Leonard Wood Memorial's own funds. The trials will be made at the Westfort Institution near Pretoria, S. Africa, and the Eversley Childs Sanitarium in Cebu, Philippine Islands. Drs. Jose N. Rodriguez and A. R. Davison will be in charge of the tests.

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ANCIENT PIPE—Russel C. Fey, of the University of Illinois expedition to northern Arizona, shows a pipe found by the group. The pipe was smoked by a Cohonina Indian about 1,000 years ago and was lost by him when his house burned down. The pipe is painted with a dull black design.

METEOROLOGY

48-Hour Rain Forecasts

► A REMARKABLY better method of predicting whether it will rain two days from now has been developed by U. S. Weather Bureau meteorologists at the Washington airport.

In January, 1951, forecasters predicted wet or dry weather on "the day after tomorrow" with an 89% accuracy. The system used in previous years had achieved only 62% to 70% accuracy. Under the new method, the average for the three winter months last year was 84%.

The system was officially installed last winter and will be used in the Washington-Baltimore area in future winters. Its use will shortly be extended to Kentucky, Tennessee, Ohio and Western Pennsylvania.

Using the fundamental principles on which the new system is based, meteorologists believe the same degree of accuracy can be achieved over the rest of the nation, in winter and in summer. The score is so good for the Washington-Baltimore area that one meteorologist described it as "getting better results than we often do for predicting rain only 24 hours ahead."

The new method is described by R. C. Schmidt of the U. S. Weather Bureau's

station at Washington airport, in the Bureau's MONTHLY WEATHER REVIEW (May). The method is based on a systematic application of the meteorologist's knowledge of the upper air to weather forecasting.

In actual practice as used at the Washington airport, the forecasters depend on information about air pressure high in the air at Little Rock, Ark., and at sea level at Washington. This permitted the forecasters to divide their days into four types. The presence or absence of other weather factors under each of these four types gave the forecasters the basis for making their predictions.

Rain or snow in the Washington-Baltimore area during the winter months almost always depends on whether moisture sucked up into the air from the Gulf of Mexico can travel to the area. This new method gave the forecasters clues as to whether or not this moisture would arrive over Washington and Baltimore under the proper conditions for precipitation—two days after they made their forecast.

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ENTOMOLOGY

Cockroaches, Housewife's Nightmare, Test Insecticides

See Front Cover

► THIS NIGHTMARE for the housewife, pictured on the front cover of this week's SCIENCE NEWS LETTER, is a giant cockroach that lives in the southern United States and South America. The facts about its life cycle are not fully known, but P. G. Piquett, entomologist of the U. S. Department of Agriculture at Beltsville, Md., is learning about the habits of this giant insect by breeding them. The one that posed for the photographer has lived under scientific observation for 20 months as an adult. Its mate died after 19½ months as an adult.

Cockroaches are grown under controlled conditions for use as test insects for insecticides and for use in other science studies. This four-inch giant, *Blaberus giganteus*, grows so slowly that it may not be ideal for the routine tests that are made with the ordinary roaches. But it may be of value for other experiments when more is known about it.

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