

helicopter is being assembled and flown to a base three miles from the volcano in full view of the cone.

Igor Sikorsky, designer of the helicopter, will participate in the double-barrelled helicopter volcanological observations. Geological work will be directed by Dr. L. C. Graton of Harvard and Dr. Ezequiel Ordonez, Mexican geologist, while Dr. O. H. Gish of the Carnegie Institu-

tion of Washington is in Mexico to study the electrical phenomena of the volcano which results in lightning-like discharges with accompanying thunder within the erupting material.

From the leisurely hovering helicopter the scientists expect to look down the throat of erupting Paricutin to discover what happens there, accomplishing in a half hour what ordinarily takes days.

Science News Letter, July 14, 1945

improvements, as expected, have occurred without exception in those patients who were not completely paralyzed.

Science News Letter, July 14, 1945

Bauxite deposits in Oregon are the only known commercial reserves of this material for making aluminum in the United States west of the Rockies.

Horse serums are used for the production of antitoxins because they are more easily borne by the human organism in large quantities than those of most other animals.

MEDICINE

Neostigmine for Polio

Has been found disappointing in acute cases, but two medical groups believe it should get further trial. Recovery said to depend on nervous system damage.

WITH the infantile paralysis season at hand, physicians will read in the *Journal of the American Medical Association* (July 7), that:

1. A synthetic chemical called neostigmine plus hot packs help relax muscle spasm a little, or temporarily, in acute cases and are promising enough to warrant further trial and study.

2. The amount of ultimate recovery from infantile paralysis depends primarily on the extent to which the central nervous system was involved and not the type of treatment.

Studies of neostigmine treatment are reported by two medical groups: Drs. Henry Brainerd, Hilliard J. Katz, Albert Porter Rowe, Jr., and J. C. Geiger, of San Francisco, and Drs. M. J. Fox and W. H. Spankus, of Milwaukee.

The point about recovery depending on amount of nervous system involvement is made by Dr. Mary S. Sherman, of Chicago.

The use of neostigmine for infantile paralysis was first suggested by Dr. Herman Kabat, now with the U. S. Public Health Service, and Dr. Miland E. Knapp, of the University of Minnesota, in 1943. They reported the chemical relieved the excessive muscle tone or tension and the muscle spasm and helped reduce incoordination. Neostigmine, also called prostigmine, had heretofore been used successfully to relieve fatigued muscles in myasthenia gravis, a disease of muscle weakness.

The San Francisco group reports from their studies that neostigmine relaxes muscle spasm at least temporarily, that its value requires further proof but that its further use is "definitely warranted"

under controlled conditions.

"The Kenny treatment with or without neostigmine is an effective method of preventing contracture and deformity," they also report, adding they found neither proof nor disproof that either neostigmine or Kenny packs reduced the incidence of paralysis.

The Milwaukee doctors were disappointed at finding no pronounced or even consistent relaxation produced by neostigmine. They felt their results differed from those of Drs. Kabat and Knapp because all the Milwaukee cases were acute, whereas chronic cases predominated in the group treated by Drs. Kabat and Knapp. Using neostigmine with hot fomentations, the Milwaukee doctors believed a persistent and perceptible relaxation of spastic muscles resulted in most cases and that this treatment should be used further.

The condition of 70 patients stricken by paralysis in 1943 and examined 18 months later is the basis for Dr. Sherman's report. These patients were not treated with Kenny packs, splints or special apparatus. They were kept at absolute rest in bed and given as nearly normal a diet as possible. As soon as the pain and fever subsided, physical activity with early active exercise under water was started. The patients were got up and encouraged in the normal use of their legs and arms as soon as possible.

Of the 64 survivors, 13 had no detectable weakness at any time, 44 had some muscle weakness but are not now handicapped, six have "functionally significant weakness," but require no further treatment, and seven require braces or operations. No patient has gotten worse during the 18 months and major

SCIENCE NEWS LETTER

Vol. 48 JULY 14, 1945 No. 2

The weekly *Summary of Current Science*, published every Saturday by SCIENCE SERVICE, Inc., 1719 N. St., N. W., Washington 6, D. C. North 2255. Edited by WATSON DAVIS.

Subscriptions—\$5.00 a year; two years, \$8.00; 15 cents a copy. Back numbers more than six months old, if still available, 25 cents. Monthly Overseas Edition: By first class mail to members of the U. S. armed forces, \$1.25 a year. To others outside continental U. S. and Canada by first class mail where letter postage is 3 cents, \$1.25; where letter postage is 5 cents, \$1.50; by airmail, \$1.00 plus 12 times the half-ounce airmail rates from U. S. to destination.

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Entered as second class matter at the post-office at Washington, D. C., under the Act of March 3, 1879. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to Periodical Literature, Abridged Guide, and the Engineering Index.

The New York Museum of Science and Industry has elected SCIENCE NEWS LETTER as its official publication to be received by its members.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N.Y.C., Pennsylvania 6-5566 and 360 N. Michigan Ave., Chicago, STAt 4439.

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