

VOLCANOLOGY

Volcano Dead Again

See Front Cover

► PARICUTIN, THE volcano that roared into being in the state of Michoacan, Mexico, nine years ago, has been completely inactive for the past four months and may be dead, in the opinion of Dr. Carl Fries, Jr., chief of the U. S. Geological Survey in Mexico.

Since March 4, following a three-month period of some of the most intense activity of its life, the volcano has produced no fire-works, not even a puff of smoke. There have been previous periods of relative calm, but never before has it been so quiet.

Dr. Fries says that judging from its formation, of the cinder cone type, Paricutin has probably reached its maximum growth and if it is not completely inactive it is in its final stages. However, authoritative opinion has pronounced the volcano dead at least twice previously in its life, and has been dramatically proved wrong by renewed explosions.

Men of the U. S. Geological Survey have

been observing the volcano since its birth on Feb. 20, 1943. Detailed records of its activity since that time have been kept by the scientists and by natives of the vicinity trained by U. S. and Mexican geologists.

In the observation hut there are weather instruments and a series of charts on which the Mexican observers note the violence of explosions by comparing them with the noise of a rifle shot, or whether they are strong enough to rattle the windows of the hut or shake the entire structure. Height of the smoke column is gauged by comparing it with the height of a nearby mountain.

Maps have been constantly modified to record the direction and extension of the tongues of lava which flowed down onto the valley from the vent on the volcano's side. Frequent aerial photographs supplement the chronicle of the volcano's life.

Accumulation of these data in regard to the life course of a volcano of this type is of use in the prediction of the course and activity of similar volcanoes.

Science News Letter, August 2, 1952

rently is going on in more than 20 scientific fields.

As a possible outcome, the AAAS predicts a general improvement of health, welfare and well-being of Alaskans, as well as speeded economic development of the area.

An example "exploring" organization is the geophysical branch of the Office of Naval Research. Currently it is studying permafrost, permanently frozen ground that creates many problems in construction work. The Navy wants to know how deep permafrost goes and how it behaves from summer to winter.

Other Navy-sponsored research in the general Alaskan area includes seismological studies which record earth movements in the Aleutian Trench; glaciological studies which probe the thickness, age and deformities of glaciers, and oceanographic studies which produce charts with up-to-date information on ocean currents, ocean depths and floating ice.

Growing scientific interest in Alaska was shown last year when more than 200 persons attended the Second Alaskan Science Conference at Mt. McKinley National Park. A third such conference is scheduled this September. The conference is expected to attract even more scientists.

Science News Letter, August 2, 1952

PUBLIC HEALTH

Gamma Globulin Test

► THE SECOND large scale trial of "G.G.," short for gamma globulin, as a poliomyelitis preventive started in Sioux City, Iowa, on July 21.

The first of the trials, under the direction of Dr. William McD. Hammon of the University of Pittsburgh, concluded at Houston, Tex., on July 12. A total of 33,137 Houston youngsters aged one to six were given the "shots." Half of them got gamma globulin, half a harmless substitute identical in appearance.

In the Greater Sioux City area, center of Woodbury County, Ia., and Dakota County, Nebr., the children injected were in the age group one to 11 years. The aim was to give "shots" to 16,500 children there during the six days from July 21 through July 26. The age group was picked because 67% of the polio cases in the area are among children in those ages.

The Sioux City area was picked because it is becoming one of the nation's hot spots for polio. Latest reports to the U. S. Public Health Service show cases in Iowa jumped to 72 for the week ending July 12 and to 35 in Nebraska.

The trials in Sioux City, as in Houston, were made under a grant from the National Foundation for Infantile Paralysis with blood gamma globulin furnished by the American National Red Cross. Local doctors and nurses assisted the National Foundation team in giving the "shots."

Further such trials will probably be made

as the polio season progresses. Object is to learn whether gamma globulin from pooled plasma from blood banks contains enough polio-fighting antibodies to protect youngsters from the disease. The protection will not be lasting, but probably will be long enough to see the child through one polio season at least.

Which child got gamma globulin and which got a harmless substitute will be known only to the master statistician who will check all the records to see how many, if any, of the children given gamma globulin escaped polio compared with those who did not get this blood substance. It will be three or more months before his report is ready.

Science News Letter, August 2, 1952

GENERAL SCIENCE

Arctic Research Advances In 20 Different Fields

► SCORES OF scientists representing many concerns are investigating Alaskan points of scientific interest in an overall program having multi-million dollar proportions, the Alaska division of the American Association for the Advancement of Science reports.

Backed by the armed forces, federal and territorial agencies, universities and private research institutions, research work cur-

TECHNOLOGY

"Gasifier" May Solve Army's Arctic Problem

► A "GASIFIER" originally developed for airplane engines soon may help gasoline-powered Army equipment get started in cold arctic weather.

Engineers at the Army's Engineer Research and Development Laboratories, Fort Belvoir, Va., said the device helps engines start in less than 30 seconds and at temperatures of minus 65 degrees Fahrenheit.

It uses no external heating source. Instead, it supplements the carburetor. As the engine is cranked, the gasifier burns a small amount of the fuel under controlled conditions. Heat thus generated warms the rest of the gas, vaporizing it.

After a few minutes, the gasifier can be cut off and the engine will operate in the usual way.

Although the device solves one starting problem, it creates another. During the 30 seconds before the engine catches, cranking power must be supplied the engine. Engineers report that the value of the gasifier to the Corps of Engineers hinges on figuring out how to supply such large amounts of power at such low temperatures.

Should the device prove satisfactory, the Army expects it to save "quite a bit of money." Available figures show that \$1,000,000 worth of gasoline and \$2,000,000 worth of man-hours are poured down the drain each year by civilians trying to get their cars started in cold weather.

Science News Letter, August 2, 1952