

MEDICINE

Plans Made to Prevent an Infantile Paralysis Epidemic

Conference Urges that Outsiders Refrain from Visiting Children Located at Summer Camps or Institutions

PLANS to prevent a widespread epidemic of infantile paralysis this summer were formulated at a conference of health officers held on the invitation of Dr. Shirley S. Wynne, commissioner of health for New York City, and Dr. Thomas Parran, state health commissioner.

A large outbreak of cases has been reported from New York City, particularly from the borough of Brooklyn, which is where the terrific epidemic of 1916 started.

Should Report Cases

The conference ruled that state health officers should advise directors of all summer camps to discourage visiting of the children by parents or friends from outside the camp. State health officers are also to advise superintendents of all institutions housing children, such as orphan asylums, boarding homes and special schools, to forbid any outside visitors to the children.

The experience in such institutions during the 1916 campaign was that in the institutions forbidding outside visitors outbreaks of the disease were averted. The conference also urged complete reporting of all cases as a measure which would help to keep the outbreak somewhat under control. When it is necessary to move an infantile paralysis patient from one place to another, such as from the country to the city to get hospital treatment, the local health officer must notify the state health officer of the move, so that the latter may take steps to guard against spread of the infection in the new locality.

Participating in the conference were representatives of the health departments of the New England states, Pennsylvania, New Jersey, Maryland and Ohio, and two medical officers from the U. S. Public Health Service.

"The disease is so striking in its ill effects that we are more alarmed than the number of cases usually make necessary," Dr. William H. Park, director of the bureau of laboratories, New York

City department of health, declared in a radio talk given under the auspices of Science Service and broadcast over the Columbia network. "However, the disease is so tragic that we cannot blame parents for worrying."

The germs of infantile paralysis, or poliomyelitis as it is called in scientific circles, are much smaller than the germs of diphtheria or scarlet fever. They are so small that they pass through the pores of porcelain filters. This type of germ is called a virus.

"Can we do anything to stop the spread of the disease? Something but not much," Dr. Park said.

"There are certain things that we know. The infection is spread by the infected secretions of human beings; the nasal secretions, the throat secretions, the intestinal discharges. This material when expelled from the human body remains alive for some days or weeks.

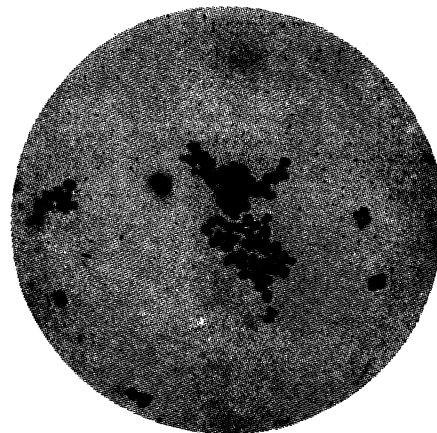
"If it comes in contact with the mucous membranes of very susceptible children, some light infections and some severe ones will probably develop in a fair proportion of the cases. In two instances the virus was transferred to a few children in raw milk.

"We try therefore to limit as far as possible the contact of those who may be infected with those who are not. Therefore we treat any case of infantile paralysis in the same way we would a case of diphtheria. The secretions from the eyes, nose, mouth and the intestinal discharges are immediately disinfected. The one who nurses the child abstains as far as possible from mingling with healthy children.

Nerve Cells Injured

"Infantile paralysis almost never affects the intelligence. The injury done is confined to the nerve cells and the muscle fibers supplied by them. Usually a small or a larger group of muscles is wholly or partially affected.

"When the convalescence is established we try to do what we can to strengthen the muscle fibers left intact in a muscle or if this is impossible we



FLU GERMS?

This may turn out to be the first picture of the influenza germ. Prof. Arthur I. Kendall, of Northwestern University, thinks these paired germs, called diplococci, are the visible stage of the usually invisible flu germ. Prof. Kendall devised a special culture process for making these and other invisible germs visible in the microscope.

try to accustom other muscles to take over to some extent the function of those injured.

"It was discovered that those who have suffered from muscular atrophy because of paralysis can be benefited by exercising while in the water."

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ANTHROPOLOGY

Eskimo's Fingerprints Reveal Racial Difference

NOW it is the anthropologists who are finding finger prints and hand prints and foot prints useful in identifying human beings. It appears that an individual's race is marked on his hands and feet, and that scientists skilled in dermatoglyphics can tell the difference between the hand or foot prints of the Japanese race, the white, negro or Eskimo.

Application of prints to anthropological uses is still a new possibility. Only a few racial groups have as yet been printed, but the racial differences do exist in those groups that have been tested.

The latest people to be identified by their prints are Eskimos. When Henry B. Collins, Jr., of the Smithsonian Institution, was at St. Lawrence Island, in Alaska, last summer he lined up Eskimo children and adolescents and some adults, too, to be "printed." With much giggling and amusement the Eskimos submitted to having an inked roller run over the sole of the foot and an inked

glass pressed against the hand, and the impression was stamped on paper.

The Eskimo prints have now been studied by Dr. Charles Midlo and Dr. Harold Cummins of the Department of Anatomy, Tulane University. A report which has just been completed demonstrates the existence of a distinct racial trend in the combinations of patterns and configurations of Eskimo prints.

In the science of dermatoglyphics, anthropologists hope to gain a new criterion for distinguishing the races of man. Among the physical traits used in the comparative study of human groups are stature, facial features, and, most important of all, the measurements and proportions of the skull.

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ARCHAEOLOGY-GEOLOGY

Drying Lakes and Soil Erosion Destroyed Mayan Empire

BECAUSE the face of the land in which they lived began to change insidiously, fatally, the Mayas of prehistoric America temporarily lost their grip on civilization, and their first empire fell. This, at least, is the view advanced by a geologist who has returned from the region where America's greatest prehistoric civilization once flourished and then mysteriously succumbed.

The geologist, Dr. C. Wythe Cooke of the U. S. Geological Survey, was sent by the Carnegie Institution of Washington to study the region within traveling range of the institution's camp at Uaxactun, Guatemala. Reporting his observations in the *Journal of the Washington Academy of Sciences*, Dr. Cooke describes the hill and lowland country as it is, and as it doubtless appeared in the days when the Mayas had their beautiful cities and their farms there.

The hills today are forested with big trees and a little underbrush. The lowlands are flat plains covered with a tangled mass of gnarled and twisted trees, festooned with vines. In the rainy season these low plains are flooded. At one time evidently the plains were lakes all the year round, affording plenty of water for the region and good transportation. Both water supplies and transportation are highly inadequate today.

Dr. Cooke suggests that quite possibly the transition from lake to lowland took place during the time of the Mayan Empire. If so, this would explain many facts about Mayan economics now hard to understand.

"One may imagine the Peten District of Guatemala when first occupied by the Mayas to have had a thick fertile black soil," he states. "During the many centuries of the Mayan occupation more and more of the soil was washed away

until the bare limestone was exposed. Then the land was abandoned and reverted to the jungle."

The erosion of the soil would have been enormously accelerated when the Mayas lived there, Dr. Cooke explains, for the Mayas cut down the forest to grow quantities of corn for their large population.

If the geography of the region in Mayan days had been as it is now, burden bearers would have had a hard time of it traveling from one city to another. But if we think of the lakes as they once



STRANGE FRUIT

This wild rose is still a rose, and the prickly "gooseberries" are nothing but a curious type of galls, produced by the sting of an insect looking for a good green stem in which to deposit her eggs.
Photographed by Cornelia Clarke.

were, obviously travel about the land in boats would have been easy, with only short overland distances to be covered.

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ENTOMOLOGY

Farmers Losing in Insect War As Grasshoppers Take to Air

THERE is war in the middle west. Aerial warfare. Embattled farmers are fighting a "plague of locusts," great flying, migrating armies of grasshoppers, that sweep clean of any green thing fields that a few days before were covered with growing crops.

Government entomologists in Washington watch their battle maps of this latest offense of insects against man. In the field, in South Dakota, Nebraska, and Iowa, poison warfare experts are combatting the grasshopper menace. Inviting food poisoned with deadly arsenic is spread in the path of the moving hordes of grasshoppers. Already countless thousands of the invading insects have been killed.

Fast as the enemy ranks are thinned, reinforcements take their place at the front. Young grasshoppers, till now incubating in the warm soil, have joined

the insect "troops." Hoppers with newly-developed wings make surprise attacks on farmers who thought themselves rid of the pest which has already inflicted damage amounting to several million dollars.

An area of 11,000 square miles in south central South Dakota with an even larger area in north central Nebraska is the scene of the most intense fighting. The states immediately surrounding form the zone second in severity of attacks, and local warfare with grasshoppers has been reported in all other western states to the Pacific and as far east as New York.

With the grasshopper outbreaks increasing in size, the farmers are likely to suffer even more extensive losses, says Dr. W. H. Larrimer, Federal entomologist in close touch with the situation.

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