

## MEDICINE

# Infantile Paralysis Selects Special Type of Children

## Value of Convalescent Serum not Proved in Studies During Present Poliomyelitis Epidemic, Doctor Reports

**I**NFANTILE paralysis, epidemic in New York and New England this summer and fall, affects more frequently children who are brunettes, have mongoloid eyes, deeply pigmented skin, wide faces with widely separated eyes, irregular teeth, and certain endocrine deficiencies, Dr. George Draper, professor of clinical medicine at Columbia University, has determined as a result of investigations made during the present prevalence of the disease.

"So far as the paralytic symptoms of poliomyelitis are concerned," Dr. Draper said, speaking at a conference in Albany, N. Y., sponsored by pediatricians of New York and Canada, "the child is more important than the virus of the disease itself."

Dr. Draper's demonstration of the influence of bodily constitution on susceptibility and severity of this dreaded illness may provide a means of selecting children who can be given special preventive attention during another epidemic.

Over 140,000 cubic centimeters of human convalescent serum were prepared and used for treatment during the epidemic in New York State, Dr. Thomas Parran, Jr., State Health Commissioner, reported. Twice that amount of human blood was collected to make the serum. Nearly 2,000 cases occurred in New York State outside of New York City where over 4,000 were reported.

Under the leadership of Dr. William H. Park, director of the New York City health department bureau of laboratories, every poliomyelitis case in the metropolis was visited by specialists drafted for the purpose. This special inquiry fails to show that in general the cases treated with convalescent serum progressed any better than those not so treated, although there was no evidence found that such serum injected intramuscularly did any harm. Dr. Lloyd W. Aycock, director of the Harvard Infantile Paralysis Commission, made carefully controlled clinical ex-

periments on the use of serum, giving serum only to every other case that came to the hospital, but he reported his results also were inconclusive.

Dr. Simon Flexner, director of the Rockefeller Institute of Medical Re-

## PLANT PHYSIOLOGY

# Instrument Indicates When Chicle Tree Should be Tapped

**M**AKING chicle trees, that yield the sap that becomes chewing gum, give a written notice when they should be tapped is the feat which has been accomplished by Dr. John Sidney Karling of Columbia University, during the course of his expedition and research in British Honduras and Central America. It was done with a dendrograph, which is a sort of steel corset that can be strapped around a tree, with a registering pen and a clockwork-driven drum to make a record of the trunk's contractions and expansions. The instrument is the invention of Dr. D. T. MacDougal of the Carnegie Institution of Washington.

The flow of latex or sap fluctuates widely during the day according to variations in the surrounding relative humidity, temperature, sunlight, rainfall, etc., and is closely correlated with a corresponding contraction and expansion of the stem. If the "chicleros" or tappers bleed the trunk when expanded the flow is quite high, but if they wait until it has contracted most of the sticky milk or sap remains in the tree.

It has been impossible to determine from ordinary observations when the stem reached its peak of expansion, and it occurred to Dr. Karling to apply the dendrograph to chicle trees in the jungle. It was found that the trunk expanded and contracted periodically during the day, and reached its maximum at six o'clock in the morning. He

search, New York, explained that the fact that the virus causing infantile paralysis cannot be seen does not mean that nothing is known about the disease. He suggested that the infection is introduced through the nose and that the victim must come into actual contact with someone carrying the disease. The nasal tract secretions are the most likely infective material.

Compared with 1916, when 21 out of each 100,000 died of the disease, this year's epidemic was mild, with only 8 deaths per 100,000. This may be due either to a milder form or a wider recognition of the disease by doctors.

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learned that he could predict the time of greatest flow accurately and get the maximum yield.

The work had its difficulties. Dr. Karling found it necessary to shelter the instrument from excessive rainfall by surrounding the tree trunk with a small thatched roof. This kept off the rain all right, but it also attracted small boa constrictors, which by crawling up and down the trunk often completely disarranged the recording needle and the graph.

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## ENGINEERING

# Airplanes Spot Breaks In Electric Power Lines

**S**KIMMING above the electric power lines of a public utility company in northern New York state, airplanes now do the patrol work formerly allotted to crews of men.

Many weary hours of walking and the services of numerous workers are saved through the use of an airplane, trial flights have shown. Even at a speed of one hundred miles per hour, the observer in a plane can spot failures along the line with the accuracy of a slow-moving ground crew.

Reports are transmitted by dropping notes or by telephone after the plane lands.

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