

MEDICINE

Infantile Paralysis Proved To Be Year-Round Disease

Virus Has Been Isolated From One Paralytic Patient And One Non-Paralytic in the Middle of January

FIRST positive evidence that infantile paralysis is a year-round disease is reported by Dr. Albert B. Sabin and Dr. Robert Ward of the University of Cincinnati. (*Science*, March 20.)

Although the disease has long been reported to occur in the winter, the virus, or invisible germ, which causes infantile paralysis has never been isolated from winter cases. The disease is most common, of course, in summer and autumn.

Drs. Sabin and Ward now report the first isolation of the infantile paralysis virus from winter cases; one non-paralytic patient and one paralytic patient in Cincinnati during the middle of last January. The germ was also isolated from an apparently healthy younger brother or sister of each case. This latter discovery indicates that winter infantile paralysis may be spread by human carriers, while the more frequent summer and autumn cases are spread by a number of factors, possibly insects such as flies.

In support of the insect-spread theory, the Cincinnati physicians state they have recently been able to demonstrate the virus in the blood of monkeys paralyzed after infection by mouth with a virus strain of recent human origin.

Thus blood-sucking and biting insects (such as mosquitoes or flies) must be considered as possible spreaders of infantile paralysis. Drs. Ward and Sabin have actually demonstrated the presence

of the virus in eight of 15 batches of flies trapped during recent outbreaks of the disease in Atlanta and Cleveland.

Since with one exception the insects were not caught in the vicinity of privies, and the infantile paralysis patients had been in the hospital for days or weeks, the two physicians are unable to say where the insects got their virus.

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GENETICS

Statistical Methods Aid In Human Heredity Study

STATISTICAL statements of the probability of inheritance of a given trait in human heredity cannot predict how a particular individual will turn out, but do have potential value when large numbers are taken into account, states Prof. J. B. S. Haldane, noted geneticist of the University of London, in the concluding chapter of a new book *New Paths in Genetics* (Reviewed, SNL, this issue).

"It is true," he conceded, "that there is almost always an element of uncertainty in predictions concerning individuals. But when we deal with millions, probability becomes certainty, and conjecture accurate prediction. And when Herr Hitler writes of the evil effects of race crossing it seems worth while to point out that a race is nothing homo-

geneous, but a collection of very various individuals who have something in common which can only be accurately described in terms of the statistical methods which we are working out. Before we can speak accurately of the evil effects of so complicated a process as a racial cross it would be well to investigate the evil effects of a single gene substitution.

"We geneticists who are working on the accurate description and analysis of human genetics stand between two extremes, the conservatives who do not wish to see scientific method applied to human affairs, and the reactionaries who would apply half-baked science to them in the interests of a particular class or nation. Unlike conservatism and reaction, progress demands clear thinking. If this book can help towards clear thinking on human genetics it will not have failed."

Growth of cities in Europe is credited, in another chapter, with the improvement of human heredity through the wiping out of hereditary defects. When people lived and died in the same small village circle, cousins marrying cousins for generation after generation, defects resulting from recessive genes kept cropping up as a result of this inbreeding. But when people began to migrate and to mix the population, human outbreeding became the rule and many of these once common defective genes eventually became lost.

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WAR AGAINST SCIENCE

This photograph, distributed by the Soviet news photograph agency Sovfoto, shows the building of the Pulkovo Observatory demolished by German shells. The Pulkovo Observatory is a large astronomical observatory located near Leningrad.

