

MEDICINE

U.S.S.R. Tests Virus Candy

Research with the live polio virus vaccine has reached the point where human volunteers, both in Russia and in the U.S., are testing it.

MORE THAN 4,000,000 Russians have gulped down, in one form or another, a live virus that is capable of preventing paralytic polio. (See SNL, June 27, p. 405.)

The live virus vaccine used in Russia is an offspring of the live polio virus developed by Dr. Albert Sabin of the University of Cincinnati. Results so far look good: persons who have received the vaccine have built up protective levels of antibodies against the crippling form of polio.

However, Russia faces her polio season now and through the summer, so that it will be autumn before Russian scientists know definitely how much protection this vaccine offers, Dr. M. K. Voroshilova, Institute for the Study of Poliomyelitis, Academy of Medical Sciences, Moscow, told SCIENCE SERVICE.

Many of these Russians have already received the Salk vaccine which contains killed virus. Others have received either the one vaccine or the other. The country is so large that various sections receive different types of vaccine, the woman scientist said. She and fellow colleagues attended a five-day conference on live polio virus vaccine in Washington in cooperation with the World Health Organization.

Dr. Herald Cox, identified with the Lederle Laboratories strain of live virus vaccine, reassured reporters that well controlled experiments with the live virus could be a useful measure even among persons who have received the Salk vaccine.

When a person receives the Salk vaccine, his body builds up a certain level of immunity to polio. Then, when he receives a dose of the live virus, the level of antibodies shoots even higher. To date, few such tests have been carried out in the United States because some scientists felt that the immunizing effect of the live virus would not be evident due to the mass inoculation of Salk vaccine.

One question would remain unanswered in the event of a polio epidemic in an area where persons had received both vaccines. It would be impossible to determine which vaccine prevented the polio from crippling the vaccinated.

Test Live Vaccine

THE LIVE POLIO VIRUS vaccine has proved to be effective among 550 Americans who volunteered to be treated.

The group of 550 volunteers consisted of University of Minnesota married students and their children.

The vaccine, which was given by mouth, provided more protection for the children than for the adults, seven researchers report

in the *Journal of the American Medical Association* (June 20).

Although a substantial portion of the population tested had previously received Salk shots, the levels of antibodies in these persons shot up when they swallowed the live virus vaccine. This is important since it indicates that the presence of a Salk-vaccinated population should not prohibit further studies of this nature in the United States, the authors point out.

The fact that Salk shots have been widely administered among the U.S. population has been one argument against using the live virus vaccine in tests in this country.

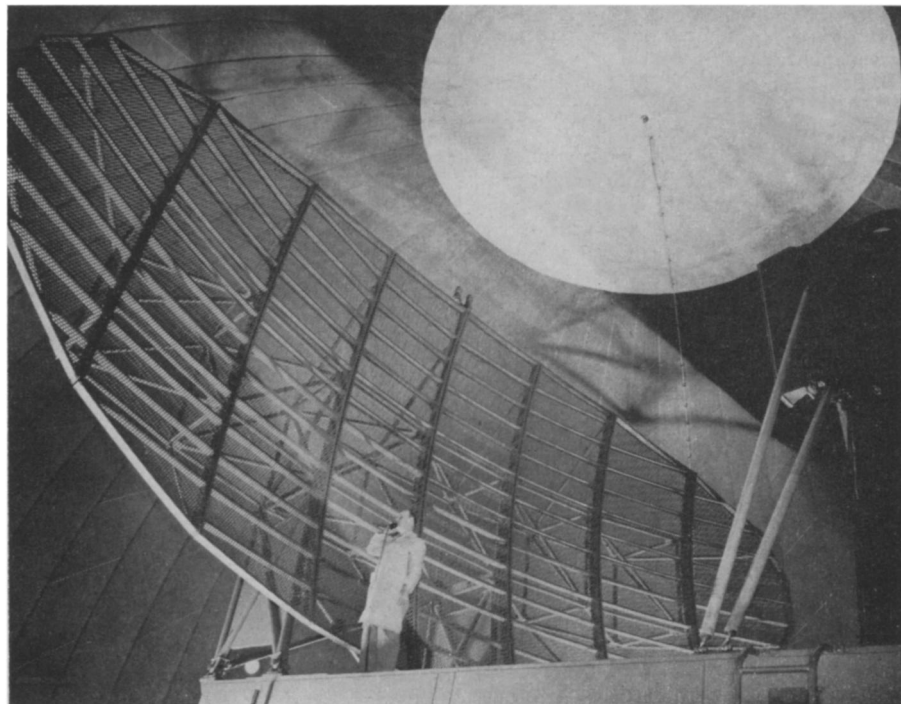
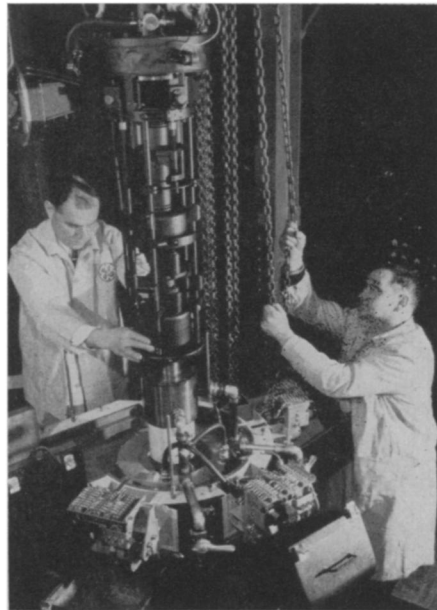
One of the big problems facing these investigators is the question of why the adults did not build up antibody levels similar to the children's. They speculate that dosage may have to be altered for adults. It could be the acidity in the stomach that causes a lessened response in adults.

Current studies are seeking answers to this question. Researchers are also attempting to discover whether viruses for all three

types of poliomyelitis can be combined into one dose without losing the effectiveness of single doses of each.

The authors of the article are Drs. Robert N. Barr, Henry Bauer, Herman Kleinman, Anne C. Kimball, and Miss Marion K. Cooney, all of the Minnesota Department of Health, Dr. Mauricio Martins da Silva, now at the Pan American Sanitary Bureau, and Dr. Eugene A. Johnson of the University of Minnesota.

Science News Letter, July 4, 1959



HIGH POWER RADAR—A "super power" radar that detects air target at far greater ranges and at higher altitudes than present-day air defense radars has been developed by the General Electric Company jointly with the Air Research and Development Command. The upper photograph shows technicians installing a multi-million watt Klystron tube that permits generation of extremely high powers in the microwave region. The feed horn, antenna and 50-foot rubberized radome are shown below.