

● RADIO

Saturday, Sept. 7, 1957, 1:45-2:00 p.m. EDT "Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.

Dr. F. A. Arnold, Jr., director of the National Institute of Dental Health, National Institutes of Health, Bethesda, Md., will discuss "Research for Better Teeth."

MEDICINE

TB Affects Tongues and Thumbs as Well as Lungs

► TUBERCULOSIS does not always attack the lungs. Sometimes it infects tongues, thumbs, noses and other parts of the body not usually associated with the disease.

These rare types of the disease were described at a symposium held at the Mayo Clinic, Rochester, Minn., and reported in the *Proceedings of the Staff Meetings of the Mayo Clinic* (July 24).

One patient appeared at the clinic complaining of hoarseness and a pain in the right side of his throat and tongue. It had bothered him for three years, and various medications and treatments had apparently not helped.

X-rays and chemical tests showed the presence of tuberculosis in the tongue and larynx as well as the lungs. Combined drug treatment brought about a rapid improvement and within 20 days all symptoms except hoarseness were gone.

TB of the tongue has virtually disappeared in recent years, since lung tuberculosis is now largely prevented from reaching the stage where it lowers the general resistance of all body tissues. The tongue usually becomes infected after the lungs, but in some cases the tongue is the only part of the body affected.

A physician acquired tuberculosis of the thumb when he accidentally cut himself performing an autopsy. He was working in a hospital room that was frequently used for examining patients who died of tuberculosis.

The cut healed promptly but two months later the thumb became swollen and then ulcerated.

The case was diagnosed as primary inoculation tuberculosis of the thumb and drug therapy was begun. Three months of treatment caused little change. The area was removed surgically and replaced with a skin graft from the thigh. The graft healed and no further evidence of tuberculosis was found.

One woman developed tuberculosis of the nasal passages and suffered from a gradually increasing nasal obstruction for 13 years before it was properly diagnosed. It healed rapidly with drug treatment and left little permanent damage.

Nasal infections are relatively uncommon even in pulmonary tuberculosis since nasal membranes are usually resistant to the bacteria.

Anti-tuberculosis drugs are extremely effective in the treatment of primary nasal tuberculosis.

Science News Letter, August 31, 1957

Leprosy Still Unconquered

Leprosy, the disease that has marked its victim as an outcast of society for centuries, is still a mystery to scientists, its cure and prevention unknown.

► LEPROSY, or Hansen's disease, remains one of the world's few major diseases that has not been conquered by modern science, Dr. James A. Doull, medical director, Leonard Wood Memorial (American Leprosy Foundation), Washington, told SCIENCE SERVICE.

Although the disease has existed since antiquity and even today affects from 3,000,000 to 5,000,000 persons, too little is known about it to expect that prevention or cure is just around the corner.

The big stumbling block to finding a cure lies in the nature of the bacterium that causes the disease. So far, the *Mycobacterium leprae* has resisted all attempts at making it grow anywhere but in a human being. Researchers have been unable to infect experimental animals with the bacterium or to grow it in tissue cultures.

Thus, two of the most powerful tools of the experimental laboratory are not available to leprosy researchers. Possible drug treatments must undergo prolonged and difficult studies in human cases.

The leprosy bacillus belongs to a family known as the mycobacteria, which includes the tuberculosis germ as well as many others.

Some of the family can be cultured quite easily, some only with special treatment, and others not at all.

Since tuberculosis bacillus is related to that of leprosy, researchers have hoped that drugs effective against one may work against the other.

This has been true up to a point. Promin, one of the sulfone groups of drugs that are presently the best treatment for Hansen's disease, was first found effective in tuberculous guinea pigs. It was then successfully used in patients with the other disease.

But one of the latest and reportedly best TB drugs, isoniazid, has not fulfilled its promise and does not appear to be any better than the sulfones.

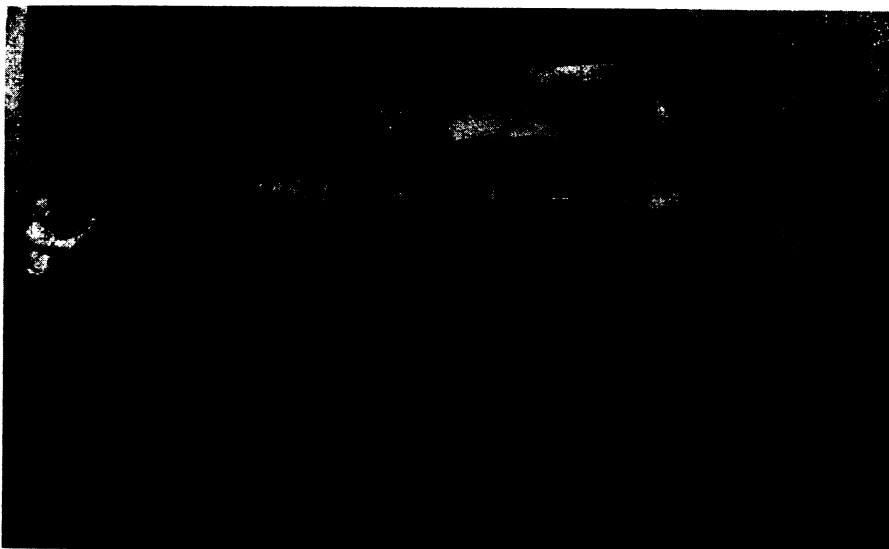
Whether or not Hansen's disease is increasing or decreasing in the world is a question that cannot be answered. The only study done along these lines was carried out during a 20-year period in the Philippines. It showed a noticeable drop in the lepromatous type of the disease, which is the most infectious. But this may have been only a local occurrence and not one affecting other parts of the world.

The sulfone drugs have been effective in treatment, but they are far from the ideal therapy since improvements may not be noticed for many months. Sometimes, there is no improvement.

Research on the disease is hampered by many factors, Dr. Doull said. Both men and money are needed.

Some scientists are turned away because of the failures of other able scientists in the past. Some are more interested in the study of viruses. Also there is the significant fact that there is little of the disease in those countries that have become leaders in scientific work.

Science News Letter, August 31, 1957



TURBOJET—Believed to be the most powerful production turbojet in the world, a Pratt & Whitney Aircraft J-75 moves from its final test at the East Hartford, Conn., plant of United Aircraft Corporation's engine division. The engine, with afterburner, is designed for speeds of up to Mach 2 and develops more than 15,000 pounds of dry static thrust.