

MEDICINE

Nobel Prize is Awarded

Award climaxes honors to American, who discovered that genes of the fruit-fly can be destroyed or dislodged to change heredity.

➤ AWARD of the Nobel Prize in medicine and physiology to Prof. Hermann Joseph Muller of Indiana University constitutes recognition of 20 years of solid devotion to one research goal—better knowledge of genes, the ultramicroscopic chemical entities that rule the hereditary makeup of all living things, from molds to men.

Twenty years ago Prof. Muller, then at the University of Texas, discovered that he could destroy or dislodge genes in the reproductive cells of the little fruit-fly, *Drosophila*, by bombardment with X-rays. New generations of fruit-flies appeared in his rearing cages, with changed eye colors, differently-shaped wings and other sudden evolutionary alterations of the type known as mutations.

He announced his discovery early in 1927. Recognition of its importance came quickly, and at the first midwinter

meeting of the American Association for the Advancement of Science following the announcement, he was awarded the \$1,000 prize of the Association. Other recognitions and honors followed, to be climaxed by the just-announced Nobel Prize.

For a few years before the war, he was in various European countries, collaborating with fellow-geneticists in their laboratories. He was at Amherst College from 1942 until he went to Indiana University 14 months ago.

Word of the Nobel award came while he was attending a conference on theoretical physics at the Carnegie Institution of Washington. Interviewed at the conclusion of a session, he stated that he is still pursuing the same type of knowledge, and still using the same prolific little insects as material. He has added radium radiations to X-rays as weapons of genetic bombardment.

Science News Letter, November 9, 1946



GENETICIST—Prof. H. J. Muller, who was awarded the Nobel Prize in Medicine and Physiology.

humans. It will not be made available generally until results of its use in study groups are known.

Science News Letter, November 9, 1946

RADAR

Anti-Collision Radar To Make Flying Safer

➤ ANTICOLLISION radar, new lightweight equipment compact enough for average commercial and military transports, is now entering final development and production by General Electric. One special feature is its antenna-control by gyroscope.

The new equipment, weighing from 100 to 150 pounds, is designed as a unit, economical in cost and space requirements, suitable for common use in planes large enough to carry five or more passengers, and of the type that can be utilized in present planes by present crews. It is designed to lessen hazards of flying both in overcast weather and in darkness.

It is an improvement over the five-control radar equipment that General Electric has been constructing for the Army. An outstanding feature is the gyroscopically stabilized antenna so that the shadow image on the radar screen or scope is unaffected by the banking, climbing or diving of the plane. This improvement is expected to remove one of the main limitations to general use of the equipment during flight.

The new radar will have about eight times more power than the previous Army model, and its maintenance is simpler. It will also have a wider range. The range of its predecessor, the Army APS-10, is approximately 90 miles.

Science News Letter, November 9, 1946

MEDICINE

U. S. To Try BCG Against TB

➤ WHEN 100,000 Americans get vaccinated against tuberculosis some time next year, it will be a vindication of a method of fighting tb which has for almost 20 years been largely repudiated by health and medical authorities in this country.

The vaccine to be used is named BCG. The letters mean bacillus of Calmette and Guérin. These French scientists developed the vaccine at the Pasteur Institute in Paris in the 1920's. It is made from living tuberculosis germs which have been weakened so they do not cause the disease but do produce resistance to it.

A disastrous experience occurred years ago in Luebeck, Germany, when virulent germs accidentally got into the vaccine and the vaccinated children got tuberculosis instead of being protected against it. This helped strengthen the conservative attitude of many American scientists who had already felt it was dangerous to inject living tuberculosis germs into babies and children.

Careful studies of the vaccine, however, have been carried on for some years in this country and it has been widely and successfully used in Europe and South America.

Now the U. S. Public Health Service, on the recommendation of outstanding tuberculosis authorities, will launch anti-tuberculosis vaccinations on a large scale. First to get the vaccine in this new project will probably be persons living in regions where there are no hospital beds for tuberculosis. Under such conditions babies and children are exposed to the germs because the patient has to stay at home, instead of going to a sanatorium for treatment and isolation during the time he is spreading virulent germs.

Nurses and other personnel in hospitals and sanatoria will probably also be given the vaccine for their protection.

The vaccine will be made in this country from a fresh culture to be obtained from the Pasteur Institute. Tests on animals will come before it is given to