

PUBLIC HEALTH

New Ranking for Killers

New system which ranks leading causes of death by working years lost topples present standing of heart diseases and cancer from top position.

► **HEART DISEASE** as a leading cause of death takes second place, cancer drops to fourth and pneumonia moves up into third place. These are the rankings under a new system worked out by Dr. Frank G. Dickinson, director of the Bureau of Medical Economic Research of the American Medical Association.

This new measure ranks leading causes of death by working years lost. By this yardstick, accidents are the leading causes of death between the ages of 20 and 65, the working years of American people.

Life years lost constitute another new measure used to gage the importance of the different causes of death. That is, if statistics show that you have a life-expectancy of 70 years and you die at 50, then 20 life years are lost to you and to society.

Using death rate figures for 1945, Dr. Dickinson said that according to the new measure "A complete cure for heart diseases (or cancer) in 1945 would have added fewer thousands of working years to the total life expectancies of the American people than would the prevention of all accidental deaths."

On this basis, he suggested, emphasis on accident prevention would be a means of lengthening life and increasing productive power.

It also shifts the responsibility to the shoulders of the layman. It is the layman's job to prevent accidents, Dr. Dickinson declared.

The standard method of ranking leading causes of death by the number of people who die from each cause is an unsatisfactory index to the loss suffered by society and the age of the victims, he pointed out in the *MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA* (Sept.).

Numerically, the seven leading causes of death in 1945 were in order of importance: heart diseases, cancer, injuries to the brain, accidents, diseases of the kidneys, pneumonia, and tuberculosis.

These same diseases, measured by the number of life years lost, were in order of importance: heart diseases, accidents, cancer, pneumonia, brain injuries, tuberculosis, and diseases of the kidneys.

When measured in terms of working years lost, they were: accidents, heart diseases, pneumonia, cancer, tuberculosis, brain injuries and kidney diseases.

"The task of the physician is not to eradicate death from the face of the earth, but to prolong life and to relieve pain," Dr. Dickinson concluded.

"Regardless of the measure used, the success of the American physician in car-

rying out his task cannot be denied. The layman, unfortunately, has not done his share to prolong life by reducing the surprisingly high totals of life years and working years lost from fatal accidents."

Science News Letter, October 9, 1948

METEOROLOGY

Atomic Age Smoke Signals Sent from Weather Tower

► **FIRST** atomic age smoke signals have been sent from the giant weather tower at the Brookhaven National Laboratory in Upton, N. Y. (See *SNL*, July 31.)

The smoke "signals," formed by a harmless fog, are used to trace the speed and course of wind over the laboratory. This study will permit sending off harmlessly into the air waste radioactive gas from a new atomic pile when it is completed.

Smoke from the 355-foot tower is photographed by weather observers in mobile stations. The fog behaves in the air in the same way the radioactive gases will.

Science News Letter, October 9, 1948

TECHNOLOGY

Chigger-Proof Clothing Now Stands Many Washings

► **CHIGGER-PROOF** clothing for outdoor workers and vacationers that will keep its protective power through as many as seven washings can now be produced, entomologists of the U. S. Department of Agriculture announced. The garments are impregnated with two hitherto unused chemical compounds, phenyl carbonate and x,x'-dichlorodiphenyl ether.

The new chigger-proofing method is a postwar development in a program undertaken by the Department of Agriculture for the Army during the war. It was particularly necessary to protect troops in the Southwest Pacific area against the attacks of bloodsucking mites that carried an insidious disease known as scrub typhus. The compounds first used, while successful against the mites, would not stay in the fabric when it was washed.

Science News Letter, October 9, 1948



WORLD'S LARGEST TESTING MACHINE—This 5,000,000 pound machine will be used for testing the lightest weight aluminum and magnesium structures that aeronautical engineers can design. It will enable engineers to measure the loads that the largest and strongest airplane structural elements will withstand; to modify their design and minimize weight; and to solve the principal problems of designing full-scale aircraft on the basis of small-scale model design and tests. It was demonstrated the first time officially in the *Aeronautical Structures Laboratory at the Philadelphia Naval Base.*