under six years of age, the most dangerous period in whooping cough. An equal number of children are left unvaccinated. Through periodic home visits check is made upon the children's exposure to the disease.

Results to date tend to show that, when smaller amounts of the vaccine are used, approximately the same proportion of vaccinated children contract the disease as in the unvaccinated group, but that with a marked increase of the dose only one-third as many vaccinated children come down with the disease.

A display of the clinic's work has been on view at the series of exhibitions held in various New York City armories by the Women's and Professional Division of the Works Progress Administration.

Science News Letter, November 14, 1936

PUBLIC HEALTH

Increase in Cancer Deaths Is Apparent, Not Real

THOSE who have been worrying over the menace of an increasing cancer death rate can ease their fears and take heart from the optimistic note on cancer struck by latest figures of the Metropolitan Life Insurance Company.

The increase in the cancer death rate during recent years is more apparent than real. No more people are dying of cancer now than 25 years ago, but more cancer deaths are being recorded because of better diagnosis. In certain groups, notably white women between the ages of 35 and 54, the death rate has declined significantly in the past 25 years. Only over the age of 65 has the cancer death rate for white women shown an upward trend.

These are among the findings of a survey of cancer deaths among the company's industrial policyholders during the past quarter century.

Even among white males the cancer death rate is not quite a third higher than that of 25 years ago. This increase, it is believed, is due to improved diagnosis, more cases being recognized now as a result of improvements in modern medicine during the past quarter century. These improvements in diagnosis have caused an apparently greater increase in the cancer death rate for men than for women in the 25 years, because in men cancer occurs more often in internal organs where it was not easily accessible for diagnosis.

Bearing out this point which argues that the increase in cancer deaths is more apparent than real is the fact that the recorded death rates from cancer in accessible places have declined while those from inaccessible cancers have increased.

Other hopeful developments in the cancer situation in the United States are the growth of facilities both public and private for treating cancer and the improvement, as a result of special training, of the physician's ability to diagnose and treat cancer effectively.

Also encouraging is the fact that between 1932 and 1935 the American

College of Surgeons collected data on 25,000 patients living five or more years after treatment for cancer without recurring signs of the disease.

The true death rate from cancer may not have increased, but cancer still remains a major public health problem, the life insurance company's statistician, Dr. Louis I. Dublin, points out. Cancer ranks second only to heart disease as a cause of death, and still takes 135,000 lives each year.

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PHYSICS

Intense Sound Vibrations Age Whiskey in Seven Hours

SEVEN HOURS of treatment with intense sound vibrations—having the impact of mechanical blows—will produce a whiskey equivalent to one aged four years in the wood. The result of this research was announced for the first time by Dr. Leslie A. Chambers, of the School of Medicine of the University of Pennsylvania, before a meeting of the Institute of Radio Engineers, Philadelphia Section, in the Engineers Club, Philadelphia. This was only part of the research conducted by Dr. Chambers in the realm of pressure pulses, and the results of his research indicate that they will have their greatest use in the preparation of serums.

During Leave

Dr. Chambers' research on the effects of intense mechanical vibrations in the artificial maturing and blending of alcoholic beverages was not conducted at the University of Pennsylvania, but at a commercial laboratory in Boston, while on leave from the University.

The results, however, were highly satisfactory when checked by analysis. The aging of whiskey has to do with the esters and higher alcohols, as well as other factors which produce the taste and other features sought by connoisseurs. Tests showed that the whiskey exposed to the pressure pulses produced these features in seven hours against four years in the wood.

The sound vibrations used by Dr. Chambers are of a frequency of 1200 cycles per second, some two octaves above the middle "C" of the musical scale; but their intensity is equal to one hundred times that of the entire Philadelphia Orchestra playing together.

These vibrations are produced by oscillators and kindred devices.

It has been found that when fluids are subjected to these intense vibrations various changes are induced and accelerated. Particularly useful and interesting is the effect on milk. When milk is subjected to this treatment it is homogenized, as it were, and the cream will not again separate from it. The milk is also more digestible because of the effect upon the curds.

The research in the field of medicine is progressing rapidly, Dr. Chambers pointed out, and it has been shown that certain organisms are killed by these pressure pulses.

Dr. Chambers pointed out that future research in the field of intense sounds will undoubtedly lead to wide use in the sciences and industry, especially in the field of medicine.

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