

The CHAIRMAN: Dr. Andrews of the American Association for Labor Legislation has been concerned with the pioneer work which has been done in relation to the betterment of industrial conditions, and we are very glad to have him here and to have from him his opinion as to what this association ought to do; Dr. Andrews of the American Association for Labor Legislation. (Applause.)

Dr. JOHN B. ANDREWS: Mr. Chairman and Gentlemen: The Program Committee has asked me to speak particularly about occupational diseases, and as my time is limited to five minutes, it will be possible for me merely to suggest a few of the most important phases of the subject.

Popular interest in industrial accidents is largely a development of the past five years. During that time national conferences have been held, safety committees have been organized, factory inspection departments have been re-formed, workmen's compensation laws have been passed by twenty-two states and by the Federal government. All of this within the last five years. We move rapidly in America when once under way.

A little later, but also remarkable in its development, there has grown up a somewhat similar interest in occupational diseases. National conferences, state commissions, and legislative campaigns have called attention to occupational diseases as to a new problem. Investigations have made familiar to all of us such typical trade maladies as lead colic, the brass founders' ague, the match workers' phossy jaw, the potters' rot, the hatters' shakes, the boiler makers' deafness, the miners' asthma, the compressed air workers' bends. These are merely suggestive. We now know that practically every calling contributes its own special malady to the long list of work diseases. And we all recognize the appalling loss of human life due to that most common of all industrial diseases, tuberculosis.

In discussing accidents in coal mines before your safety congress last year in Milwaukee, Dr. Holmes complained that it is the occasional mine explosion that receives attention, while the steady daily toll of accidental injury and death—many times as important in the year's total—is scarcely recognized. So it is with industrial diseases. Because more easily recognized the striking manifestations of occupational disease are first to receive popular attention. But these spectacular effects are trivial compared with the gradual lowering of vitality caused by the daily breathing of impure air and by continual over-strain.

The principal health risks in industry are classified according to their nature as: (1) Specific industrial dusts, fumes, gases, vapors and acids (poisonous and non-poisonous); (2) Harmful bacteria and micro-organisms; (3) Compressed or rarified atmospheres; (4) Improper lighting; (5) Extremes of temperature; and (6) Excessive strain.

If we consider merely those diseases due to industrial poisons, we find already published by the Federal Bureau of Labor a carefully analyzed list of fifty-five, one of which alone (lead) is in daily use in more than 150 trades. The first state medical inspection of factories in Illinois resulted in the removal from a single establishment of sixty workmen who had become "leaded." The Federal Bureau of Labor reports upon a white lead factory employing only 170 men, but recording sixty cases of plumbism during the year.

Under a special appropriation of the Ohio Legislature the Board of Health in that state is now making a survey of occupational diseases. Dr. Hayhurst announces that of eighty-two women telephone and telegraph operators who died in Ohio in 1911, forty-three per cent died from tuberculosis at the average age of only 28.8 years.

German sickness society records for a period of eighteen years show that while barbers have a rate of only 365 days of sickness per hundred members per year, iron founders and machinists present an experience of 1,189 days of sickness per hundred members per year; polishers and metal grinders 1,215 days, and iron and steel mill workers 1,256 days.

Conservative authorities have estimated that from sickness alone among our industrially employed in the United States, our mere money loss each year is nearly three-quarters of a billion dollars. These experts further declare that with our present scientific knowledge, at least one-fourth of this annual economic loss (approximately \$200,000,000) can be prevented.

You remember with what conscious pride we recently hailed the statement that owing to the efforts of science the average life of the individual is being prolonged. But our authorities on vital statistics now tells us that while it is true that infant mortality is being reduced, while it is true that scientists are now dealing more successfully with those diseases which formerly carried off the young, that nevertheless the mortality among men of middle age

and older, is actually *increasing*. The death rate of the group from 45-54 years of age increased 1.9 per cent, and the group from 55-64 years increased 6.92 per cent during the decade 1900-1910. This same tendency is recorded in the reports of the United States census. Obviously something is wrong, and there is reason to believe that the principal cause of this sacrifice of human life is the condition under which men work. There, in that group, are our skilled workers, experienced at the trade, capable of producing at high speed—for a time. But under the stress of their work they are failing to keep the pace.

We hear much about neurasthenia among society leaders, and the increasing pilgrimage to "take the waters" at Karlsbad and Baden Baden. But those victims of fast living—of the highball and the joy ride—are as *dust in the balance* compared with the worn-out and diseased in the great host of industrial workers. These obscure ones—the unnumbered thousands who weaken and die yearly because of unsanitary conditions of employment and strain of overwork—are much more worthy of national attention.

Industrial *accidents* are now happily receiving careful study. Accidents which are preventable, will be prevented. Economic interest and public sentiment both demand it. And the injured workman will be compensated finally by a system of insurance that will insure *for* the injured workmen instead of *against* him. But I wish to urge you to consider a problem, less appreciated at present, but even more important to the efficiency of the worker and to society as a whole—the problem of safeguarding the workers against unhealthful conditions of employment.

This work should be seriously undertaken by employers and workmen in their own establishments. Committees on sanitation should be formed. Sickness benefit systems should be established. The fullest co-operation should be given to factory inspectors in order that the establishment of the backward and short-sighted employer may be brought up to the standard fixed for that industry.

Well-meaning manufacturers have sometimes protested that legislation for the protection of labor has been over-done. But such legislation has *not* been over-done. On the contrary, the trouble has been that much legislation in the past was drafted without intelligent co-operation, and as a result it frequently was *under*-done