factor in motivating reforms in working conditions in factories, and that the initial step was taken by Sir Robert Peel, a millowner, by acquainting the English Parliament with these conditions in 1802. Other reformers became interested. Statistics gathered showed that the average age of the working classes was 22 as compared with an average age of 44 among the wealthier classes, and that the death rate in the workingmen's districts was appreciably higher than the general rate. The Factory Act was passed in 1833, limiting the hours of work of children and providing for factory inspection in certain factories and industries. Several trades were brought under the control of the Factory Act in 1864, and in 1867 the act was broadened to include many industries and those places employing more than 50 persons. This act prohibited the eating of meals in noxious plant atmospheres, provided for the guarding of machinery, and required mechanical ventilation for the control of injurious dusts. Medical inspection of factories was inaugurated in 1897, at which time the idea of compensation was adopted.

France and Germany during the nineteenth century also passed laws to regulate hours of labor and protect workmen in some of the more dangerous trades. Factory inspection was introduced in the United States by Massachusetts in 1877; soon thereafter Massachusetts, New Jersey, New York, Connecticut, Michigan, Missouri, and Minnesota passed laws requiring the removal of dusts and injurious gases by means of exhaust fans.

The United States became the last industrially important country to adopt compensation when in 1908 limited benefits were provided for United States Civil Service employees. New Jersey was the first state to pass such a law, in 1911. Other states followed rapidly in providing compensation for accidents. In 1911 California, Connecticut, Illinois, Michigan, New York, and Wisconsin passed laws requiring the reporting of, and later compensation for, cases of occupational disease. In 1919 Wisconsin made occupational diseases compensable and about half of the states now have laws requiring such compensation. Some of these states recognize only a few specific diseases, whereas others recognize any disease of occupational origin, that is, a disease arising out of or in the course of and peculiar to the occupation. The general coverage law, while it is said by some to be conducive to fraudulent claims that are expensive to refute, is obviously the only completely fair coverage for the workman, whom it presumably is designed to protect. As an example of the obviously unfair situation that can result under the limited coverage statutes, one state, which has been a leader in making occupational diseases compensable, not long ago recognized diseases arising from exposure to "benzine (petroleum products) and its homologues" but did not recognize diseases arising from exposure to benzene (benzol), nor silicosis arising from silica-bearing dusts. Both of these errors have since been corrected. Any fair-minded student of industrial hygiene appreciates the necessity of recognizing and controlling all exposures that adversely affect the health and well-being of employees, regardless of the nature of the exposure.

The first major public act that offered control of an occupational disease in the United States came in 1912 when the use of yellow phosphorus (also called white phosphorus) in the manufacture of matches was prevented by placing a prohibitive federal tax on its use for that purpose.

What was perhaps the first significant major investigation[2] of occupational disease in this country was undertaken by the United States Public Health Service and the United States Bureau of Mines jointly to determine the cause and extent of pulmonary diseases among lead and zinc miners.

SIGNIFICANT EVENTS IN THE PROGRESS OF INDUSTRIAL HYGIENE IN THE UNITED STATES

The first national conference on industrial diseases was called at Chicago in 1910 by the American Association for Labor Legislation, and a commission consisting of representatives of medicine, engineering, and chemistry was assigned the task of investigating the magnitude of the problem and of proposing a method of attack in a warfare against industrial disease. About this time several groups began the study of occupational diseases. The United States Bureau of Mines was created in 1910. The United States Bureau of Labor, set up in 1885, was made the Department of Labor in 1913. This department was charged with collecting "information upon the subject of labor, its relation to capital, the hours of labor, and the earnings of laboring men and women, and also upon the means of promoting their material, social, intellectual, and moral prosperity." The Department of Labor has been responsible for the collection and dissemination of much valuable information in the field of industrial hygiene. There have been attempts by this department either to wrest control of industrial hygiene activities from the United States Public Health Service or to set up a duplicate service. It seems evident that industrial hygiene is primarily a health problem, rather than a labor problem, notwithstanding the fact that a few states have successfully conducted their industrial hygiene activities under state departments of labor. A point upon which there is unanimous agreement is that there should not be an overlapping or duplication of effort by departments of health and labor.

The American Museum of Safety was created in New York in 1911 and later became known as Safety Institute of America, under which name it is still active along educational lines. The National Safety Council was organized in 1913. The American Public Health Association organized a section on Industrial Hygiene in 1914. The United States Public Health Service organized a Division of Industrial Hygiene and Sanitation in 1915. The American Association of Industrial Physicians and Surgeons was organized in 1916. The ill health and increased mortality accompanying the accelerated production of munitions and other war materials for World War I made many persons conscious of the necessity for technical guidance in the recognition and control of occupational diseases. *The Journal of Industrial Hygiene*, which has been the leading publication in the field, was established in 1919.

In 1918 the Harvard Medical School established a Department of Applied Physiology, which in 1922 became a part of the present Harvard School of Public

[2] A. J. Lanza and E. Higgins, *U. S. Bur. Mines Tech. Paper* No. *105* (1915).