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DIGEST OF INDUSTRIAL HYGIENE
Literature--News--Developments

News Items

596 American Conference on Industrial Health Meets November 5 and 6.

Under the auspices of the American Association of Industrial Physicians and Surgeons the American Conference on Industrial Health will hold its Second Annual Meeting on November 5 and 6, at Chicago Towers, Chicago. The opening session will be a symposium on the technical problems of industrial health on the basis that health supervision in industry involves two great principles: (1) the adjustment of the working environment to the employee; and (2) the adjustment of the employee to the working environment, including also the human environment. The technical problems are the result of the application of these principles, and run the whole gamut of public health as applied to industry.

The afternoon session will be a symposium on the economics of industrial health, including: (1) organization and cost of a health service, and (2) discussion on the value of industrial health service to the employer, the employee and the public. The morning of the second day will be given over to a symposium on the social implications of industrial health, discussing how far an industrial health service should go; are hospital and medical care plans related to industrial health service in any practical way; does legislation play a part in this problem; and the evaluation of labor turnover, spoilage, and lack of trained men, together with the experiences of management and the interests of insurance carriers in the medical and social problems presented.

697 Special Course in Industrial Hygiene Offered at University of Pennsylvania.

In order to provide trained industrial hygienists to meet the needs of expanding health and safety services in the defense industries, the University of Pennsylvania offers a course of instruction, of twelve weeks duration, in Industrial Hygiene. The course will be given under the auspices of the Engineering, Science and Management Defense Training Program of the U.S. Office of Education and is open to graduates in engineering, chemistry or allied sciences.

Subjects covered in the course include: Principles of industrial hygiene, industrial hygiene laboratory methods, industrial ventilation, safety engineering, administration of industrial health services, industrial psychology and statistical methods. Presentation of the course is contingent upon the enrollment of a satisfactory number of students, (which will run from October 27, 1941 to January 17, 1942). Applications for admission to the course should be addressed to: Theodore Hatch, Associate Professor of Industrial Hygiene, Department of Public Health and Preventive Medicine, University of Pennsylvania, Philadelphia, Pennsylvania.

Silicium, Silicates, Silicosis. W. Giese. *Klin. Wchnschr.* 19, 558-560 (1940). (German).

Rabbits were injected intravenously with finely ground silicate dusts: clay, feldspar, sericite. Deposits of the dust were found in the spleen, liver and lymph glands but no increase in fibrous tissue. Opal (amorphous silicic acid) was also injected and the results were large deposits of dust with many giant cells, but no fibrous tissue. Opal is more soluble than quartz; therefore, the conclusion is made that the dissolved silicic acid is not the fibrous-producing substance alone. Quartz is the only substance producing silicosis. Dust taken from markedly silicotic lungs was also injected, and this again produced silicosis. A decrease in the amount of the injected dust could not be found. The author was able to show the formation of a covering, characteristic of asbestosis bodies, by feldspar, sericite and also opal, but in the smallest particles only, in the cellules. He concludes that dissolved silicic acid but not the quartz may produce this covering. Quartz shows no morphologically demonstrable appearance of dissolution; in the tissue the dust deposited in callosities retains its fibrous producing effect.

711 Pulmonary Cancer Produced by Asbestos Dust in Experimental Animals. M. Nordmann and A. Sorge. *Zeitschr. f. Krebsforsch.*, 51, 163-182 (1941). (German).

Experimental work with mice inhaling asbestos dust over a period of from 47 to 90 days for 3-1/2 to 5 hours a day produced asbestosis bodies and pronounced degrees of diffuse fibrosis after the 20th week. Proliferation of the bronchial epithelium was found, such hyperplasia encroaching on neighboring alveoli. This was followed by a metaplasia to pavement epithelium with cornification, which later seemed to be a transition to malignant neoplasm. The first well-developed carcinoma was found after 240 days. By this time only 10 of the mice had survived and 2 carcinomas were found among them. In the first series, 33 of 50 mice lived longer than 6 weeks; 14 showed abnormal growth of the epithelium, 5 metaplasia and cancer. In the second series, 28 (of 50) lived more than 6 weeks; 16 showed abnormal growth, 5 metaplasia and cornifying cancer.

712 A Case of Pulmonary Asbestosis Accompanied by Tuberculosis. H. Hannesson. *Tuberclo.* 22, 40-44 (February, 1941).

During the period 1933-1939 inclusive, there were 90 known deaths from asbestosis in Great Britain, of which 32 were associated with tuberculosis. This reports the case of 44 year old man who had been an asbestos blower, supplying the material to a cleaning machine. Although supplied with a respirator, he had never worn it. He was thin, had a high temperature, emphysema, and bilateral crepitations over wide areas. Clubbing of the fingers was marked and the sputum contained both asbestosis bodies and tubercle bacilli. The roentgenogram showed "widespread progressive nodular tuberculous infiltration with cavitation in all zones of the right lung fields and in the upper and mid-zones of the left lung fields.... The right dome of the diaphragm was elevated. There was no radiographic evidence of pneumoconiosis." A diagnosis of asbestosis and tuberculosis was made. The patient died within a month of spontaneous pneumothorax. Pulmonary findings showed both to have extensive fibro-caseous tuberculosis with cavitation; macroscopically they were like those of pure tuberculosis. Microscopically there was revealed caseous tuberculosis with many tubercle bacilli and typical reticular fibrosis of asbestosis with thickened pleura. There is a discussion of the diagnosis of the pure and complicated disease.