



Industrial Hygiene Digest

INDUSTRIAL HEALTH NEWS

LITERATURE ABSTRACTS

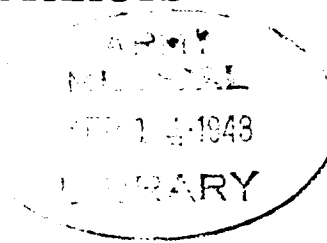
MEDICAL

ENGINEERING

CHEMICAL

TOXICOLOGICAL

LEGAL . . . decisions and trends



AUGUST, 1948

(Vol. 12, No. 8)

INDUSTRIAL HYGIENE FOUNDATION

4400 FIFTH AVENUE -- PITTSBURGH 13, PA.





FOUNDATION FACTS

Foundation Facts is a monthly news-letter issued to industrial concerns holding membership in Industrial Hygiene Foundation. The Foundation is a non-profit association of industries for the advancement of healthful working conditions.

Vol. 10

August, 1948

No. 8

Annual Meeting and Conferences, Nov. 17, 18, 19

Plans are progressing for the 13th annual meeting of Members of Industrial Hygiene Foundation which will be held at Mellon Institute, Pittsburgh, on November 18. As in past years the program for this meeting is mainly for management representatives from Member firms---officers, department heads, operating men and staff specialists.

Meanwhile, arrangements and agenda are being worked out for the four professional conferences. These will be held as follows:

November 17:	Physicians	University Club
" "	Engineers	Mellon Institute
" "	Attorneys and Compensation Men	Hotel Webster Hall
NOVEMBER 18:	ANNUAL MEETING OF MEMBERS	MELLON INSTITUTE
November 19:	Chemists and Toxicologists	Mellon Institute

Meanwhile, plans are under consideration for a Ceramic Conference to be held in connection with the annual meeting this year in response to requests from Member companies in that industry. This is intended principally for companies in the glass, pottery, refractory, abrasive and related fields. It will probably be held on November 19. A number of industry representatives will meet here on September 23 to complete the arrangements. Further announcements will be made as plans for the annual meeting and the conferences develop.

Hotel Reservations

Meanwhile, members should arrange hotel reservations immediately. Hotel Webster Hall and the Hotel Schenley promise to do everything possible in providing accommodations. In communicating with them, mention the meeting. Downtown hotels have also been advised of the dates and their cooperation enlisted by the Pittsburgh Convention Bureau.

Mellon Institute Issues 35th Annual Report

"Meeting the Needs of Mankind by Scientific Research," the 35th Annual report of the Director of Mellon Institute, Dr. E.R. Weidlein, has just been issued. This impressive 44-page publication summarizes the diversified research projects, pure and applied, currently in progress at the institution--projects ranging from work in chemical physics, treatment of waste pickle liquor and silicones, to foods and nutrition, chemicals from corn and new fire fighting agents. The report includes a summary of the work of Industrial Hygiene Foundation as well as a resume of activities of the Chemical Hygiene Fellowship of which Carbide and Carbon Chemicals Corp. is the donor..." (Copies of the report will be sent to Foundation Members upon request.)

.....Annual Meeting and Conferences: Nov. 17, 18, 19.....

compensation payments, exclusive of medical benefits and excess insurance costs was \$8,000,000. Interrupted civilian construction during the war caused a decline to about half that amount. Workmen's compensation claims under the government construction program of the war years were largely under Federal rather than State jurisdiction. Total economic losses of industrial accidents, including medical benefits, excess insurance costs, wage losses, costs of interrupted production, damage to equipment, and other losses are estimated by insurance statisticians to be nearly 10 times the cost of workmen's compensation benefit payments. This cost is borne ultimately by consumers. It offers a serious challenge to the construction industry, labor, and government for a cooperative program to prevent construction accidents and a challenge also to the medical profession for the kind of treatment that will enable disabled workers to return to their jobs as promptly as possible.

-- From Authors' summary

Industrial Medical Practice

- 831 Significance of Occupational History in Diagnosis of Silicosis.
T.F. Hatch. Radiology, 50, 746-750 (June, 1948) (Reprints available from the Foundation)

The dusty trades may be divided into three categories in respect to silicosis: (1) known to produce silicosis as a characteristic disease of the occupation; (2) known to be free from the silicosis hazard; and (3) intermediate industries in which silicosis occurs sporadically. The first two categories present no problem provided the hazard is properly assessed. In the third group, however, the detailed information of the occupational history is of greatest importance, and the adequacy of our present etiological criteria of greatest concern. There is danger in applying the generalized rules too far in the evaluation of dust exposures for the purpose of diagnosis of individual chest roentgenograms. Further laboratory research is needed to improve our understanding of the etiology of silicosis. It is of even greater importance, however, that the independent reading of chest roentgenograms be extended without dependence upon occupational histories. More systematic studies of the type described above are needed in a greater variety of dusty trades, involving exposure to more complex dusts and including, in particular, occupations in which silicosis is an occasional rather than a characteristic disease; others, in which non-disabling lung changes occur, such as in welders, also require systematic study. The statistical aspect of the problem must be kept in mind. A chest film which is non-specific when viewed alone takes on new meaning when it is found to be characteristic of a group of workers similarly exposed. Further confusion with respect to the silicosis hazard in industry can be avoided only by the most critical study of the findings in the borderline dusty trades. The responsibility is a joint one, shared by radiologists, clinicians, pathologists, and industrial hygienists.

-- From Author's summary

Laboratory Toxicological Studies

- 888 Asbestosis and Pulmonary Tuberculosis. R. Desmeules, L. Rousseau, M. Giroux and A. Soiris. Sem. Hop. Paris, 23, 1820 ff. (1947) (French)

The authors report from Quebec on asbestosis in the Canadian mines and on animal experiments. They disagree with Gardner's statements that pneumoconiosis due to asbestos is not an important factor in the production and progress of pulmonary tuberculosis, and that the presence of asbestos bodies in the sputum has no value in the diagnosis of asbestosis. Several cases of asbestosis are described; in one, death was due to tuberculosis and asbestosis, giving support although not proof for the authors' theory. Two cases of asbestosis with lung cancer are also described briefly. In animal experiments by Giroux, lung lesions and asbestos bodies were produced in guinea pigs but not in rabbits or dogs. In these animals the author traces the formation of asbestos bodies: fibers reaching the alveoli are rapidly covered by phagocytic cells, movement of the fibers results in microscopic bleeding from damaged alveolar walls; the hemoglobin from the liberated red cells is taken up by the phagocytes which already enclose the asbestos fibers. Subcutaneous or intratesticular injections into guinea pigs of suspensions of asbestos in olive oil resulted in the production of granulomatous lesions but no asbestos bodies. When, however, the suspension was injected into an area into which 1 ml. of blood had been injected immediately before, asbestos bodies were found after a month. He considers that the presence of asbestos bodies in sputum has significance, since it implies tissue damage in the lungs.

-- From Brit. J. Ind. Med.

- 889 The Efficacy of BAL (2,3-Dimercaptopropanol) in the Treatment of Experimental Lead Poisoning in Rabbits. F.G. Germuth, Jr. and H. Eagle. J. Pharm. and Exper. Therap., 92, 397-410 (Apr., 1948)

Under given sets of conditions treatment with BAL was not effective in preventing death from lead poisoning in rabbits. Urinary lead excretion was markedly increased after the first doses of BAL, but the magnitude of the excretion response diminished with additional treatments. Apparently only a small portion of the stored lead can be removed by this treatment. The implications with respect to the possible use of BAL in the treatment of lead poisoning in man are discussed.

- 890 Acute Toxicity of Arsenate of Lead in Animals. J.L. Voigt, L.D. Edwards and C.H. Johnson. J. Am. Pharm. Assoc., Sci. Ed., 37, 122-123 (1948)

The acute toxicity of arsenate of lead in chickens, white rats, and rabbits was studied. The oral LD₅₀ for a single dose was found to be approximately 450 mg. per kg. for chickens, 825 mg. per kg. for white rats, and 125 mg. per kg. for rabbits. The data included the red cell count and change in weight in chickens after feeding 500 mg. per kg. of arsenate of lead.

-- Chem. Absts.