



Industrial Hygiene Digest

INDUSTRIAL HEALTH NEWS

LITERATURE ABSTRACTS

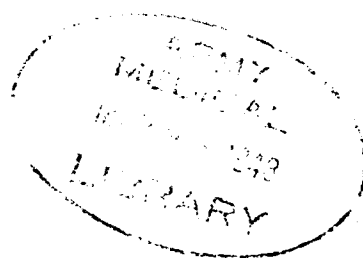
MEDICAL

ENGINEERING

CHEMICAL

TOXICOLOGICAL

LEGAL . . . decisions and trends



FEBRUARY, 1948

(Vol. 12, No. 2)

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

February, 1948

No. 2

Twelfth Annual Meeting Transactions Published

The official Transactions for the 12th Annual Meeting of Members of Industrial Hygiene Foundation, held at Mellon Institute, Pittsburgh, on November 20, were published late in February and mailed to Members and Subscribers.

This pertinent bulletin, entitled "A Better Place to Work," includes the pointed keynote address by William B. Given, Jr., President of American Brake Shoe Company, which has attracted such wide attention. More than 5,000 copies of the address have been distributed to date and it has been reprinted in a number of journals. Other subjects of immediate interest in the Transactions include:

COMMUNITY ATTITUDE ON WORKING CONDITIONS; RESULTS OF FOUNDATION FIELD RESEARCH; INDUSTRIAL HEALTH PROGRAMS IN ACTION; SUMMARIES OF CONFERENCES held in connection with the annual meeting; INDUSTRIAL HEALTH ADMINISTRATION; ATOMIC POWER AND INDUSTRY; SICKNESS INSURANCE; and, HEALTH AND WELFARE FUNDS UNDER THE TAFT-HARTLEY ACT.

Review of Flu Vaccination Experience

A report on "Results of Influenza Vaccination in Industry During the 1947 Epidemic," prepared by Anna M. Baetjer, Sc.D., of the Johns-Hopkins University, was issued by the Foundation recently. This material was made available to the Members in advance of publication through the courtesy of Dr. Baetjer. It will be recalled that she made an important presentation on the subject of influenza at the 1946 annual meeting. (See Health in Industry, Transactions, 11th Annual Meeting.)

Foundation Committees Plan Meeting

The Foundation's MEDICAL COMMITTEE, of which Dr. A.J. Lanza is Chairman, will hold an all-day meeting in New York on March 10. The agenda includes plans for a number of the Committee-sponsored activities of benefit to Foundation Members.

The CHEMICAL AND TOXICOLOGICAL COMMITTEE is holding a luncheon meeting in Boston late in March in connection with the annual meeting of the Industrial Physicians and Surgeons and the Industrial Hygiene Association. The Foundation's LEGAL COMMITTEE is planning to meet in New York on May 6.

Hatch Named Chairman of Two National Committees

Theodore F. Hatch, the Foundation's Research Director, was recently appointed to the National Research Council's Committee on Sanitary Engineering and Environment. He will serve as Chairman of the sub-committee on Industrial Hygiene. Meanwhile, Mr. Hatch has also accepted the chairmanship of the Committee on Safety Codes and Exhaust Systems of the American Standards Association.

I--H--F

sections---Heat and Moisture in Air, Fuels and Combustion, Piping, Air Handling and Ventilation, Heating and Heat Transmission, Cooling and Air Conditioning, Motors and Drives, Contract Law, Mathematical Data and Drafting Room Practice, and Terminology.

Industrial Medical Practice

- 125 Physiological Tests in Silicotic Dyspnea. M.J. Andre.
Bruxelles-Med., 26, 1493-1503, 3 figs., (Dec. 8, 1946)

This paper contains a review of a number of recent methods for assessing pulmonary efficiency which may be of use in silicotic states. These are (a) pulmonary circulation time, (b) the effect of broncho-constrictor and bronchodilator aerosols on vital capacity, (c) the effect of muscular effort on alveolar carbon dioxide, oxygen debt, vital capacity and ventilation index.

-- Bull. Hyg.

- 126 Silicosis and Metalliferous Mining in England.
Brit. Med. J., p. 743 (Nov. 16, 1946)

The decennial supplement of the Registrar General of England reveals that the occupation with the highest standardized mortality ratio among males 20 to 65 is "tin and copper mining below ground." The third highest is "other metalliferous mining below ground," and the fifth is "slate mining and quarrying." The development of silicosis is often insidious, but the onset of symptoms is often abrupt. The immediate cause of death is often congestive heart failure or bronchopneumonia. During the past 15 years, medical supervision under the direction of Craw has been carried out in the hematite miners in Cumberland, with great success. He claims that no miner who has entered the mines in that period has developed any signs of dust diseases of the lungs. This has been achieved by careful selection of the men, repeated examination and routine chest skiagraphy. Early cases of tuberculosis are identified and removed. -- Am. Rev. Tuberc.

- 127 Importance of Bronchial Lesions in Patients With Pneumoconiosis.
W. Bruninx. Acta clin. belg., 1, 536 (Nov.-Dec., 1946) (French)

Bruninx points out that many attribute dyspneic functional disturbances in pneumoconiotic patients to pulmonary fibrosis, pulmonary emphysema or cardiac disturbances. He admits that these factors do play a part but thinks that certain bronchial factors have been neglected. Three kinds of bronchial abnormalities are revealed by bronchoscopy of silicotic patients, namely bronchial catarrh, big spurs that reduce the bronchial lumen and bronchial spasms. Repeated bronchial aspiration and application of epinephrine hydrochloride to the bronchial mucosa result in prompt improvement in spasms and catarrh but exert no influence on the spurs. The fact that these therapeutic measures cause a decided and prolonged improvement in the dyspnea proves the great importance of bronchial lesions in patients with silicotic dyspnea.

-- Occ. Med.

appeared also to be increased susceptibility to tuberculosis; clinically significant tuberculosis was discovered in three of 18 cases of tremolite talc fibrosis having no other history of dust exposure. 6.3% of all the workers revealed non-symptomatic deposits of opaque material, designated as "talc plaques," at the periphery of the lungs. Thus, tremolite talc constitutes a silicate dust capable, like asbestos, of causing a disabling pneumoconiosis. It thus must be considered a definite industrial hazard requiring control by suitable engineering methods.

-- J.I.H.&T.

- 146 Dust Concentrations in Bolivia's Mines. B.D. Tebbens.
Am. Ind. Hyg. Assoc. Quart., 8, 38-41 (June, 1947)

Tables of dust concentrations occurring during drilling, mineral transfer, mucking, and blasting are presented. An average of 539 M.P.C.F. was found during dry machine drilling and 26 M.P.C.F. in wet drilling. In mineral transfer the figures are 14 M.P.C.F. in wet areas and 130 in dry; in machine mucking 52, and hand mucking 14. Besides wet operations, forced ventilation is recommended.

- 147 Bronchial Catarrh in Anthracosilicosis. J. Berard, L. Roche, and L. Ode.
Arch. d. mal. profess., 7, 251 ff. (1946) (French)

Bronchial catarrh is frequent among persons with silicosis and may provoke serious dyspnea and cyanosis. The symptoms may disappear quickly without serious consequences and without influence on the silicosis itself. In some cases, bronchitis initiates functional troubles, weakness of the heart, edema and anasarca. In other cases the silicosis becomes quickly progressive.

-- From Occ. Med.

- 148 Asbestosis of the Lungs. Luton, Champeix and Faure.
Arch. d. mal. profess., 7, 299 ff. (1946) (French)

A review of the literature reveals no previous cases of asbestosis in France, but the authors have seen several cases in a factory in which asbestos is used, and in which they make regular examinations. Details are given in one case of a man of 64, exposed to concentrations of 48 to 62 mg. of dust per cubic meter, total silica 40%, and free silica 4.3 to 14.6%. Complaints of weakness, dyspnea, coughing, and loss of weight were noted in 1943. Thoracic expansion was 2 cm. In the sputum asbestosis bodies were found but no tubercle bacilli. Roentgenography showed much more fibrosis than usual in the lower third of the lungs. During the next two years the symptoms became more severe.

-- From Occ. Med.

- 149 Methyl Chloride Intoxication at Baytown Refinery. R.W. Pipkin and T.S. Howell. Med. Bull. (Stand. Oil, N.J.), 7, 129-138 (Oct., 1947)

The history of methyl chloride poisoning is related briefly; in 1928-29 Kegel, McNally and Pope reported 29 cases. The insidious nature of the poisoning and lack of unpleasant odor of the gas has probably led to many other undiagnosed cases. In the company's butyl rubber plant, 61 cases occurred, beginning soon after operation of the plant began in September 1944. The cases were classified as to location and sources of exposure