Industrial Hygiene Digest

INDUSTRIAL HEALTH NEWS

LITERATURE ABSTRACTS

MEDICAL

ENGINEERING

CHEMICAL

TOXICOLOGICAL

LEGAL . . . decisions and trends

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INDUSTRIAL HYGIENE FOUNDATION
MELLON INSTITUTE
4400 FIFTH AVENUE -:- PITTSBURGH 13, PA.

TRIAL HYGIENE FOUNDATION

FOUNDATION FACTS

Foundation Facts is a monthly [illegible] to industrial concerns [illegible] Industrial Hygiene Foundation. The Foundation is a nonprofit association [illegible] advancement of healthful [illegible]

Volume 13 June, 1951

Mellon Institute to Have Open House in September

Dr. Weidlein, President of Mellon Institute, has announced that [illegible] September 15, from 9 A.M. to 6 P.M., and on Sunday, September 16, from [illegible] the Institute will be open to the general public. You are cordially [illegible] attend. By conducted tours of the building, and by special exhibits [illegible] tions, all visitors will be shown the scientific facilities and many [illegible] results of the Institute's researches. On Friday evening, September [illegible] the open house, there will be an informal reception held in the Insti[illegible] General activities will be reviewed. If Foundation Members who would [illegible] this reception will let us know, we should be glad to see that they r[illegible] invitations.

Title Changes in Mellon Institute

New by-laws adopted at the Annual Meeting of the Board of T[illegible] Mellon Institute have changed the title of the Institute's Head, Dr. [illegible] from Director to President. There is no change in his status as chie[illegible] officer of the Corporation in charge of the active management of the [illegible] Under the new by-laws he is also Chairman of the Board, and Dr. John [illegible] President-Honorarius of the University of Pittsburgh, is Vice Chairman [illegible] With these changes five Assistant Directors have been named Directors [illegible] Hochet, Director of Engineering.

Dr. Rupert Joins Industrial Hygiene Staff

Dr. Frank F. Rupert, Head, Analytical Department of Mellon I[illegible] throughout the past ten years, and actively associated with Industria[illegible] Foundation for many years in the preparation of Industrial Hygiene D[illegible] the Foundation's full-time staff. Dr. Rupert is a graduate of the Un[illegible] Illinois and received his Ph.D. degree in 1912 from Massachusetts Inst[illegible] Technology. Dr. Rupert has been with the Institute since 1913, and h[illegible] have dealt with writing ink, water colors, physical structure of the [illegible] silvering mirrors, and industrial hygiene. He served as industrial h[illegible] the Hazel-Atlas Glass Company in 1934-1935. Dr. Rupert, with his [illegible] analytical and physical chemistry and in industrial hygiene, is a val[illegible] to the Foundation's staff.

Reprints Available

Reprints of the articles "Auditing Industry's Medical Department[illegible] and Administration" by C. Richard Walmer, reprinted from the Transactions [illegible] Pollution" by H.H. Schrenk, published in Chemical and Engineering News, [illegible] on request of members.

I - H - F

596 Identification of Castor Bean Allergen in Green Coffee. E.J. Coulson, J.R. Spies and H. Stevens. J. Allergy 21, 554, (November, 1950).

This report supplements the clinical evidence which led Figley and Rawling to recognize apparent sensitiveness to green coffee dust as actually castor bean allergy. Their interest in the identification of castor bean allergen prompted examination of additional specimens of green coffee dust and other coffee products collected from different sources. Castor bean allergen was identified in three samples of green coffee dust from different coffee-roasting plants. Castor bean allergen was also found in one sample of cleaned green coffee beans from a commercial source. Thus the results amplify Figley and Rawling's observations and imply that it is not exceptional for green coffee to be contaminated with some castor bean derivative. No castor bean allergen was detected by Coulson and his co-workers in samples of parchment coffee or cleaned green coffee beans which were produced at a Guatemalan experiment station and were known to have had no contact with castor bean. Available evidence indicates that hazards resulting from castor bean contamination of green coffee are significant only to those who are exposed to green coffee. -- Arch. Ind. Hyg. & Occ. Med.

INDUSTRIAL DUSTS

597 A Review of Illnesses in the Cotton Textile Industry. Anon. Tenn. Ind. Hyg. News 8, 1-3, (April, 1951).

At least four different illnesses associated with exposure to cotton dust have been described to date. Byssinosis is a disease resulting from long exposure to cotton dust. There are three stages of the disease, in which the symptoms progress from irritation of the air passages, through bronchitis, asthma, cough and expectoration until total disablement is reached. Removal from the dusty atmosphere brings relief and complete recovery in some cases in the first and second stages. Complete recovery is impossible in the third stage. Mill fever occurs in new workers exposed to a dusty atmosphere and to older workers returning to work after extended absence or to a dustier atmosphere. Complete recovery is possible after a period of continuous work. Weavers' cough is associated only with the use of mildewed yarns. Removal from the working area or substitution of non-mildewed yarns results in complete recovery. An illness of similar character and symptoms occurred from the handling of low grade stained cotton, which was contaminated in the field. Considerable reduction in the exposure to cotton dust may be effected by use of dust suppressing agents applied to the cotton, and by the use of local exhaust ventilation. Respiratory protection may be used in some instances.

598 A Contribution to the Study of Asbestosis. P. Cartier. Arch. Malad. Profess. 10, 589-595, (1949). (In French).

The author has been in medical charge of 3,242 men employed in asbestos mines in Canada, where over 70 per cent of the world's supply of asbestos is mined. Cases of asbestosis were found only in those who had

been employed for at least 14 years and exposed to air containing at least 5 million particles of asbestos fibers per cu. ft., the fibers being from 10 to 250 microns in length. The outstanding feature of this report is the mildness of any pulmonary trouble among the asbestos miners compared to that reported in the United States and Great Britain as occurring in factories where asbestos is spun and woven. No clinical symptoms of pulmonary fibrosis were present. No case of pure asbestosis was detected in those under age 60, and no physical incapacity was evident. Cases of tuberculosis were not more frequent among the miners than among the clerical staff and the rest of the community, although that incidence was high. It was difficult to ascribe any cardiac affections present to asbestosis, because of the late age at which it appeared. Postmortem findings and roentgenologic examinations indicate that asbestosis is a pathological entity; but among the miners it develops so slowly as not to shorten working life, and there is no evidence that it predisposes to tuberculosis. The conclusions reached are supported by the opinions of experts at Saranac. -- Cond. from Bull. Hyg.

599 On the Retention of Air-Borne Particulates in the Human Lung: II. H.D. Landahl, T.N. Tracewell and W.H. Lassen. Arch. Ind. Hyg. & Occ. Med. 3, 359-366, (April, 1951).

The results of experiments to determine the retention of triphenyl phosphate droplets in the human respiratory tract are reported, and they are much as would be expected from other experiments. A study of subject variability revealed no marked correlations, though it would appear that retention decreases with body size and is somewhat larger for women than for men. Experiments in which the expired air was divided into four equal fractions suggest that the variability is greater in the fractions exhaled first than in those exhaled last. Different patterns of respiration were used, in which the retentions of various-sized particles were measured. The results of these experiments are compared with previous calculations, extended somewhat. Agreement is general, with some discrepancies. The results indicate, however, that the calculations for deposition in various parts of the respiratory tract are fairly accurate. -- Authors' Summary

600 Occupational Factors in Pulmonary Dust Disease. G.C. Smith. M. J. Australia 2, 777, (November 25, 1950).

Smith briefly reviews some of the main factors of pulmonary dust disease of occupational origin and adds some evidence from his own experience. He emphasizes that the diagnosis should not be made unless it is known that the patient has been exposed to harmful dusts. The problem is examined from the point of view of dust composition, particle size, and duration of exposure. A short description is given of one of the less frequent dust hazards to basalt workers, biograph operators, and those exposed to talc, graphite, cement, and certain metallic and vegetable dusts. The principles of prevention of pulmonary dust disease are summarized.
-- Arch. Ind. Hyg. & Occ. Med.

601 Delayed Pneumoconiosis. E. Martin. Rev. Med. Miniere, p. 25, (October-November-December, 1949).

Martin describes six subjects with delayed pneumoconiosis who were followed over a long period and whose case histories are illustrated with