T. B.

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Literature Abstracts

- MEDICAL
- ENGINEERING
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Industrial Health News



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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.

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Dr. Walmer Named Foundation Medical Director

Announcement is made of the appointment of Dr. C. Richard Walmer as Medical Director of Industrial Hygiene Foundation.

Dr. Walmer took up his duties as full-time physician for the Foundation on August 1. He will direct the medical phases of the organization's efforts for the improvement of working conditions and the advancement of employee health. He will also serve as Secretary of the Foundation's Medical Committee which is headed by Dr. A.J. Lanza, Associate Medical Director, Metropolitan Life Insurance Company.

For the past five years Dr. Walmer has been associated with Dr. T. Lyle Hazlett, Medical Director at Westinghouse Electric Corporation, serving as toxicologist and as a consulting specialist in industrial medicine. He has had wide experience with sick disability cases and in protecting workers against health hazards. He is a staff member of Presbyterian and Braddock General Hospitals, Pittsburgh.

Upon graduation from Washington and Jefferson College, Dr. Walmer entered the University of Pittsburgh Medical School where he obtained his M.D. degree in 1935. After interning at Pittsburgh Hospital, he took one year of postgraduate work in medicine at the University of Pennsylvania. Besides his medical training, Dr. Walmer also holds the Master of Science degree in chemistry.

Annual Meeting Nov. 7

A series of informal, round-table Conferences are planned for representatives from member companies in connection with the Foundation's Eleventh Annual Meeting this year. The general meeting will be held on November 7 at Mellon Institute, Pittsburgh. The Conferences will be held the day before and the day after the regular meeting. The tentative arrangement follows:

Nov. 6	AM -- Medical Conference	AM -- Engineering Conference
	PM -- Medico-Legal Conference	PM -- Engineering Conference
Nov. 7	-- Eleventh Annual Meeting of Members	
Nov. 8	AM -- Chemical and Toxicological Conference	
	PM -- Chemical and Toxicological Conference	

An agenda covering subject matter to be discussed at the Conferences will be sent to members in advance of the annual meeting along with the preliminary program for the Annual Meeting. Members are urged to see that this material reaches all interested personnel in different departments within the company.

News Brief: "From the Research Laboratory to the Armed Forces," a series of six radio talks describing wartime work at Mellon Institute, is now available to Foundation members. One of the talks is devoted to Foundation activities.

Control Methods

854 The Control of Lung Disease in Industry. R. Hermon.
Brit. J. Phys. Med., 9, 23 (Jan.-Feb., 1946)

In the past, in industrial medicine, attention has been focused too closely on silicosis, but the other forms of industrial pneumoconiosis have been neglected. The term "benign pneumoconiosis" has tended to stifle or postpone needed investigation and institution of preventive measures. Any industrial process giving rise to dust, the inhalation of which subsequently produces roentgenologic manifestations in the lungs, should be subject to the closest scrutiny. Even though there may seem to be no resultant disability, steps should be taken to control the hazard. Attention is called to reports on pneumoconiosis affecting boiler scalers, graphite workers and radiator and boiler finishers. In all dusty occupations routine roentgenologic examinations are advised, but roentgenograms of high standard should be used and never of the miniature type. — From Occ. Med.

855 Notes on Ventilation of Grinding and Other Foundry Operations.
H.H. Valiquet. Am. Ind. Hyg. Quart., 7, 22-24 (June, 1946)

The fundamental principles of foundry ventilation have been presented in a number of papers. The author gives a number of miscellaneous notes on various details of ventilation and dust-removal, which add to the general efficiency. In conclusion he wishes to make it perfectly clear that grinding wheel ventilation is no longer in the era of speculation, and that methods of successful control are well developed.

Industrial Health Hazards and Their Effects

856 Silicosis, the Most Important of the Pneumoconioses.
N. Enzer. Occ. Med., 1, 425-442 (May, 1946)

This paper is a critical review of the present knowledge of silicosis. In addition to the well-known fundamentals, which must form the groundwork of any such review, the author presents several angles of the subject that may not be so well known, as well as his own views and suggestions. On the historical side, there is great need of a treatise concerned with a critical review of the subject from the historian's point of view. The author has "long felt that history will yet be written from the point of view of medicine and health - for the influence of the growth of knowledge of disease on social and economic laws is profound and far reaching". The usual classification of simple silicosis into three stages, though useful, is arbitrary and subject to wide variation in interpretation, and does not consider duration, rate of development, or noninfectious complications. The literature emphasizes the advanced stages, and there are sufficient studies on pulmonary conditions in patients dying of other conditions. The essential anatomic features of the silicotic lung are summarized as

follows: (1) nodular fibrosis throughout both lungs and in the corresponding lymph nodes; (2) coal or other dust pigment in the fibrotic areas; (3) pigmentation and fibrous thickening of the pleura; (4) emphysema which may assume several forms; (5) agglomeration of the nodules; (6) progressive enlargement and induration of the lymph nodes; (7) bronchitis and bronchiolitis; (8) evidences of strain on the right side of the heart; and (9) tuberculosis. These manifestations vary greatly in time and severity. Emphysema is as much a part of silicosis as is fibrosis. When sufficiently advanced it alters the shape of the chest, produces dyspnea, obstructs the passage of the blood, and causes strain on the heart, sometimes causing death by heart failure. The extension of lymph-node fibrosis into the hilum and mediastinum contributes to those effects. The roentgenogram is of great importance in diagnosis, and when similar nodular silicosis is present, a simple examination is adequate. However, the roentgenogram is not diagnostic in the earlier, pre-nodular stages, and when emphysema, mediastinal lymph nodes and heart effects are present, highly technical and refined methods by skilled examiners are necessary, because emphysema obscures the effect of fibrosis. In addition to roentgenological examination, a painstakingly elicited history is essential, and various tests of respiratory function should be made. Regarding exposure, the author says: "It is important to remember that whatever notions one may have regarding the safe limits of a dusty atmosphere, the final factor determining a safe atmosphere is what happens to the persons exposed to it." He considers the use of neutralizing dusts as still in the experimental stage. The final point emphasized is the necessity for an open mind on the part of the physician and of those who pass judgment on the legal and financial aspects of the problem.

857 Latent Silicosis and Tuberculosis. H. Dayman. Am. Rev. Tuberc., 53, 554-559 (June, 1946)

The author presents four case reports, all bearing evidence that silicosis can exert a harmful effect on resistance to tuberculosis even when generalized pulmonary fibrosis due to free silica is so slight that evidence of it is meagre or entirely lacking on technically satisfactory roentgenograms. This condition is designated latent silicosis. Moreover, a survey of 77 patients coming to Ray Brook Sanitarium with both silicosis and tuberculosis showed that there was no correlation between the size or number of the silicotic nodules determined roentgenographically and the rapidity with which death from tuberculosis occurred. Therefore, the degree of nodulation is not a reliable criterion of susceptibility to tuberculosis even in obvious silicosis.

858 The Incidence of Siderosis in Iron Turners and Grinders. M. Buckell, J. Garrad, M.H. Jupe, A.I.G. McLaughlin and K.M.A. Perry. Brit. J. Ind. Med., 3, 78-82 (Apr., 1946)

One hundred and seventy-one individuals (33 female, 138 male) exposed to iron dust in iron turneries were radiographed in order to gauge the incidence of changes in their lungs due to iron oxide. These changes, in the form of reticulation, were present in 15 instances. In five cases the man had been working in this occupation for more than 20 years. The changes were not gross, symptoms were few, only one complaining of shortness of breath though six said they had some cough. The dust obtained from rafter samples contained 37.1% metallic iron, 23.3% iron oxide, while the total silica content was 5.4% and the silicate residue 1.3%. -- Authors' summary.