259 Phagocytosis of Foreign Material in the Lung. O.H. Robertson. Physiol. Rev., 21, 112-39 (January, 1941).
The author reviews the modes of entrance, distribution and disposition of foreign material in the respiratory tract. First, the progress of foreign particles to the lung is impeded by the sinuous course of the nasal passages, the sticky mucous character of the surfaces, action of the cilia of the membrane and the cough reflex. Disposition of the material that has entered the terminal respiratory units is less simple. The principal method is by phagocytosis by amebic cells, the type of cell employed depending upon the character of the foreign matter. Bacteria such as the pneumococcus are handled by the polymorphonuclear leucocytes, which appear in great numbers. However, with mineral dusts, the large macrophage normally present in the region goes into action. They quickly engulf silica dust particles and carry them rapidly to lymph vessels and lymphoid tissue. On occasion the amebic cell degenerates, leaving the silica free in the parenchymal tissue. With asbestos, the process is somewhat different on account of the large size of the dust fiber. Macrophages accumulate around the fiber and form giant cells in which the so-called asbestosis bodies appear. Inasmuch as the lung appears to act as a filter for foreign material injected intravenously, it has been suggested that the pulmonary capillary endothelium carries on phagocytic activity. The evidence, however, is to the contrary. The same is true of the cells lining the tracheo-bronchial tree. A bibliography of 155 references is included.

260 Asbestosis in Grinders and Drillers of Brake Bands. Brachmann. Arbeitsschutz, p. 172-4 (1940). (German).
Brake bands are made of sheets of asbestos, or are pressed out of asbestos waste products and a filler, impregnated with artificial resin. Afterwards the bands and plates are ground and drilled. In Saxony all workers in asbestos plants must be examined annually. Clinical and x-ray examination of the grinders, drillers and men who file individual pieces has shown a few light cases of asbestosis after 2 years' work, and in nearly all such workers after 5 years employment.

261 The Struggle Against Asbestosis Today. Ehrhardt. Arbeitsschutz. pp. 191-3 (1940). (German).
The paper is a brief description of asbestosis, rather than an account of the struggle against it. The author states that no relationship was found between nasal dust filtering ability and degree of asbestosis.

262 Methods of Avoiding the Dust Danger in Asbestos Plants, Valid from August 1, 1940. Anonymous. Arbeitsschutz. pp. 253-5 (1940). (German).
The new regulations concerning exhaust systems, established by the manufacturers, insurance association and German factory inspectors, are described. The efficiency of the systems must be tested by a representative of the insurance association.

263 Regulation to Change the Regulation Regarding Manufacture of Glass, Grinding, Etching, Painting, Glass Containers and Related Industries, Dated September 13, 1940. Anonymous. Arbeitsschutz, p. 263 (1940). (German).
The German regulations prescribe that x-ray examinations be made of all workers employed at certain jobs in rooms where glass containers or refractory materials are produced or where sandblasting is conducted. The examinations are repeated every second year. All persons engaged in producing lead-containing mixtures or using lead colors are to be examined at least every 6 months.

Bean Dep. Ex# 236-(13)
4/24/01 [illegible]

PLAINTIFF'S EXHIBIT WV-012887

PLAINTIFF'S EXHIBIT 31991.00

PLAINTIFF'S EXHIBIT SOA 240