1166 The Diffusion Chamber in Experimental Silicosis. R. C. Curran and J. A. M. Ager. J. Pathol. Bacteriol. 83, 1-12 (Jan. 1962).

Diffusion-chambers were made with filter membranes of widely varying porosities. The coarser-pore (0.65 micron or larger) membranes induced an acute inflammatory reaction, possibly by acting as a "trap" for polymorphs, and a dense fibrous capsule formed around them. It was also found incidentally that polymorphs and red cells can pass through 0.8 micron pores. Valvular chambers were constructed which allowed ingrowth of fibrous tissue. When this tissue was avascular, silica dust within the chamber exerted no effect upon it; when it contained capillary blood vessels, silica caused greatly increased fibrogenesis. It is suggested that this effect of silica was largely mediated through its ability to kill phagocytes and thereby release a permeability factor. The same mechanism would also explain the inflammatory effect of the filter membranes. -- APCA Abstr.

1167 Properdin Levels in the Sera of Rabbits Exposed to Silica Dust Cloud. Gwen M. MacNab and I. Webster. Immunology 5, 461-466 (May 1962). (Immunology, Blackwell Scientific Publications, 24-25 Broad St., Oxford, England*).

1171

The properdin levels in the sera of rabbits exposed to a silica dust cloud for 19 weeks were investigated. The results show a decline in the properdin titres of the experimental animals up to the sixth week of exposure. After the fourteenth week of dusting, it was observed that the properdin levels of the rabbits were restored to normal. The significance of these findings is discussed. -- Bull. Hyg.

1168 A Dust Dispersal Machine for Inhalation Experiments. A. M. Fisher and Helen Christie. Brit. J. Ind. Med. 19, 236-238 (Oct. 1962).

A machine is described that permits the controllable production of dusty atmospheres in which experimental animals may be exposed for extended periods. This is accomplished by diluting the dust with dense inert material from which it is subsequently removed without involving changes in the particle size or physical nature of the dust which it is desired to suspend in the atmosphere. -- Authors' abst.

1172

1169 Experimental Silicosis: A Quantitative Study of Dust Mobilization. P. Gross, J. M. McNerney and Mary Ann Babyak. Am. Ind. Hyg. Assn. J. 23, 379-382 (Sept.-Oct. 1962). (Complimentary reprints available from Industrial Hygiene Foundation upon request.)

The intratracheal injection into tuberculin-positive guinea pigs of quartz dust combined with dead tubercle bacilli resulted in a lower mean pulmonary silica content than when the same amount of quartz dust was injected alone or in combination with weakly virulent living tubercle bacilli or tuberculin into other similar guinea pigs. The cause for the lower mean pulmonary silica content is related to the acute exudative phases of the inflammation set up by the dead tubercle bacilli. The edema associated with an acute exudative pulmonary inflammation causes mobilization and wash-out of intrapulmonary dust deposits. Neither tuberculin nor living tubercle injected with the dust produced a significant reduction in the silica content of the lungs because of the small dose of the former and the low grade character of the inflammation provoked by the latter. Each of these caused little edema and, therefore, scant mobilization of the dust deposits. -- Authors' conclusion

1173

1170 Pulmonary Fibrosis and Encephalopathy Associated with the Inhalation of Aluminum Dust. A. I. G. McLaughlin, et al. Brit. J. Ind. Med. 19, 253-263 (Oct. 1962).

The clinical, radiographic, pathological, and environmental features of a case of extensive aluminum fibrosis of the lungs are reported in a man of 49 years of age who had worked for 13 1/2 years in the ballmill room of an aluminum powder factory. It is noteworthy that his

* Address not in current List of Periodicals.