their lungs. In a few of the rats, an occasional asbestosis body was discovered, but there was no fibrosis. This phase of the experiment was considered unsuccessful.

Summary and Interpretation of Inhalation Experiment with King's Floats Dust.—The findings in the experiment with King's floats dust can be summarized under two headings:

1. Effect of the inhaled dust on normal animals. The King's floats dust caused a characteristic peribronchiolar fibrosis in guinea pigs but not in rabbits or rats. The fibrosis did not increase significantly in extent after the dust exposure was discontinued.

2. Effect of the inhaled dust on tuberculosis in guinea pigs. In guinea pigs infected with attenuated tubercle bacilli and then placed in the dust room, the results were more variable than is usual in an experiment of this type. A few animals showed no sign of progression of the infection; in most of them there was evidence of temporary progression with subsequent healing; in one animal the tuberculous process remained active to death. In contrast, when guinea pigs after being infected are exposed to quartz dust instead of asbestos dust, the infectious process continues to progress and eventually causes the death of the animals. On the other hand, infected animals exposed to a harmless dust like iron oxide do not show any progression of the infection.[10] Guinea pigs infected with attenuated tubercle bacilli after the termination of two years' asbestos dust exposure did not show progressive disease. The only modification of the infection was in its localization, a few bacilli being retained in the peribronchiolar fibrous tissue, with tubercles forming there in addition to the usual tubercles beneath the pleura.

In view of the variability of the results, the unusual nature of the response and the high proportion of deaths due to intercurrent pneumonia, it is felt that only tentative conclusions as to the influence of asbestos dust on the course of tuberculous infection are justified by this experiment.

Short Fiber Asbestos Dust

Since hazardous dusts like quartz are most effective in producing fibrosis when the particles are 3 microns and less in size, an inhalation experiment was performed to determine whether this condition is true for asbestos dust. It was thought that a short fiber asbestos dust consisting almost entirely of fibers and particles smaller than 3 microns would initiate an accelerated tissue response and produce an advanced reaction in a shorter time than did the King's floats dust, which contained fibers from 1 mm. to 1 micron and less in length as well as much particulate matter.

Composition and Atmospheric Concentration of the Dust.—The dusting material for this experiment was the remains of fibers collected in dust bins of an asbestos-fabricating plant after a carding operation and screened to pass 200 mesh. Since

10. Vorwald, A. J.; Pratt, P. C.; Durkan, T. M.; Delahant, A. B., and Bailey, D. A.: Siderosis: A Benign Pneumoconiosis Due to the Inhalation of Iron Dust, Indust. Med. & Surg. 19:170, 1950.