Reaction in Guinea Pigs. Eighty guinea pigs were originally placed in the dust room, but 21 of them were later eliminated from the experiment and killed because of enlarged cervical lymph nodes thought to be due to intercurrent upper respiratory infection. Of the other 59 animals, 46 remained in the dust room until they were sacrificed or died at periods up to 34 months and 13 animals were transferred to normal air after being exposed to the dust for 20 months.

The type of tissue reaction to the inhaled short-fiber asbestos was essentially the same as that already observed in the experiment with King's floats asbestos. The rate of reaction also was approximately the same, but the extent of involvement with the short-fiber dust was very much less. After 16 to 24 months of exposure only a very few small foci of reaction, which generally required microscopic examination for detection, were produced in the guinea pigs.

Only after exposures had continued for approximately one year was there an appreciable tendency for dust-containing phagocytes to gather into clumps. By 16 months phagocytes had collected about the walls of a few of the respiratory bronchioles with a little proliferation or infiltration of mononuclear cells in these walls. There were also some multinucleated cells but they were of the inert foreign-body type. At 20 to 24 months the cellular clumps were sometimes quite marked and sometimes changes in the epithelium resulted in the adenoma-like or "adenomatoid" appearance (fig. 5) previously described in the section reviewing the experiment with the King's floats dust. In most of the subsequent members of the series, the reaction remained cellular, but a few exhibited pro-

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