



Fig. 1—Diagram of cage system for mice. (B), central shaft; (C), vertical shaft; (D), pulley; (E), rope; (F), weight. The cage is divided into several compartments by vertical bars.

most dogs have also been subjected to dusting with asbestos. The results of this study will soon be made available.

Methods and Materials.—Ten animals were kept in wire cages on racks in an specially constructed room. Usually 10 or fewer animals were placed in each cage. In the early stages of the work a single mouse box, with a paddle wheel near the bottom, was loaded with asbestos to provide a cloud of dust for the entire room. Later a trough filled with asbestos was run behind each row of cages (Fig. 1). The asbestos was stirred by a series of small rotating metal agitators, and dust was blown toward the cages by multiple fine streams of compressed air. Most of the dust

animals were dusted in this manner because heavier concentrations could be obtained.

The asbestos used in this work was generally supplied as the mesh of the micronized containing its composition, by the manufacturer. This material is referred to as *asbestos* in the report. *Asbestos* is a very fine dust with high fibrous content but was selected because of its similarity to "Kong's" *asbestos*, used in other asbestos studies, and because no material with a greater fibrous content in the 100-1000 length was available. Kenneth W. Smith, M.D., provided the information that 98% of *Asbestos* Fibers 7-TF-2 (asbestos) is *asbestos*. This large proportion of the dust appears



Fig. 2—Photomicrograph of asbestos fibers. The image shows a dense field of dark, fibrous structures against a lighter background. The fibers are thin and elongated, with some branching and overlapping. The magnification is X100.

222

Vol. 11, March, 1951

PULMONARY T

to be made from serpentine rock. Certain material is not made in the chemical composition boxes, J510 25.0 1 which was made represent high and coverage.

Table 1—Chemical

Chemical	Weight	Percentage
Asbestos	1.0	100
Other	0.1	10

The above is a rough estimate of the dust.

Dust clouds were set for extended periods of 10 or 15 minutes, but it was found that a 15 minute daily dose was collected by means of a

Particle-size detector collected in water for that period and found 18% to 20% sample of air collected and sent to the lab. The dust showed the following: less than 10% 10-20, and 10-

Control animals were started AC F₁ mice, and three animals were maintained. In most of the animals 19 or 24 months mortality was indicated, apparently. Difficulty was also

It was originally made to live out a

and at all.