

Mill fiber, because of the mechanical crushing and separation given it at the mine, does not require the preliminary processing in the rim-wheel crushers as does the crude fiber. The mill fiber is fed directly into the Saco-Lowell opener, and from then on is given the same treatment as the crude fiber.

Asbestos fibers when examined microscopically do not possess the rough imbricated surfaces of other fibers such as wool. They resemble fine polished metal rods, free from any serrated surfaces. This characteristic explains the extreme difficulty encountered in attempting to spin a thread of pure asbestos. A certain amount of cotton must be added as a binder for spinning. The amount added depends on the type of fiber and the use for which the finished product is intended. Table II shows the average amount of asbestos used in the manufacture of products made in the four plants included in this survey.

TABLE II—PERCENTAGES OF ASBESTOS IN VARIOUS ASBESTOS PRODUCTS\*

| Material                                 | Plant A | Plant B | Plant C | Plant D |
|------------------------------------------|---------|---------|---------|---------|
| Brake lining (woven) -----               | 85%     | --      | 70-75%  | 80%     |
| Insulating tape -----                    | --      | 80      | 80      | 80-85   |
| Asbestos cloth -----                     | 85-94   | 85      | --      | 80-100  |
| Commercial grade yarn -----              | --      | 78      | --      | 75-100  |
| Gov't. Specif. yarn and cloth -----      | --      | 90      | --      | --      |
| Asbestos rope and wick -----             | 85-94   | 80      | --      | 80      |
| Yarn and cloth, Underwriters Spec. ----- | --      | 82-85   | --      | --      |
| Asbestos cements -----                   | --      | --      | 15-20   | --      |
| Brake lining (molded) -----              | --      | --      | 80      | --      |
| Asbestos paper -----                     | --      | --      | --      | 95      |
| 85% magnesia insulation -----            | --      | --      | --      | 15      |
| Asbestos shingles and lumber -----       | --      | --      | --      | 25      |

\* Compiled from information supplied by the manufacturers.

**Mixing**—Weighed quantities of asbestos and cotton, and usually some small amounts of card waste, are dumped in alternate layers in a pile on the floor of the mixing room directly in front of the mixing picker. The batch is shoveled into the picker, which is equipped with revolving beaters. In order to secure thorough mixing, the batch is run through the same picker twice, or through two pickers arranged in series. The mixture is removed by suction to the storage bins to await carding.

**Carding**—Carding is necessary to remove the remaining small bits of rock, and to comb the fibers into a more or less parallel condition so that they may be spun. A card is a machine with a series of revolving cylinders covered with strips of leather, wound diagonally, and fitted with fine, close-set, sharp steel bristles. A carding unit, as used in asbestos plants, usually consists of two cards, the breaker and the finisher. The mixture of asbestos and cotton