

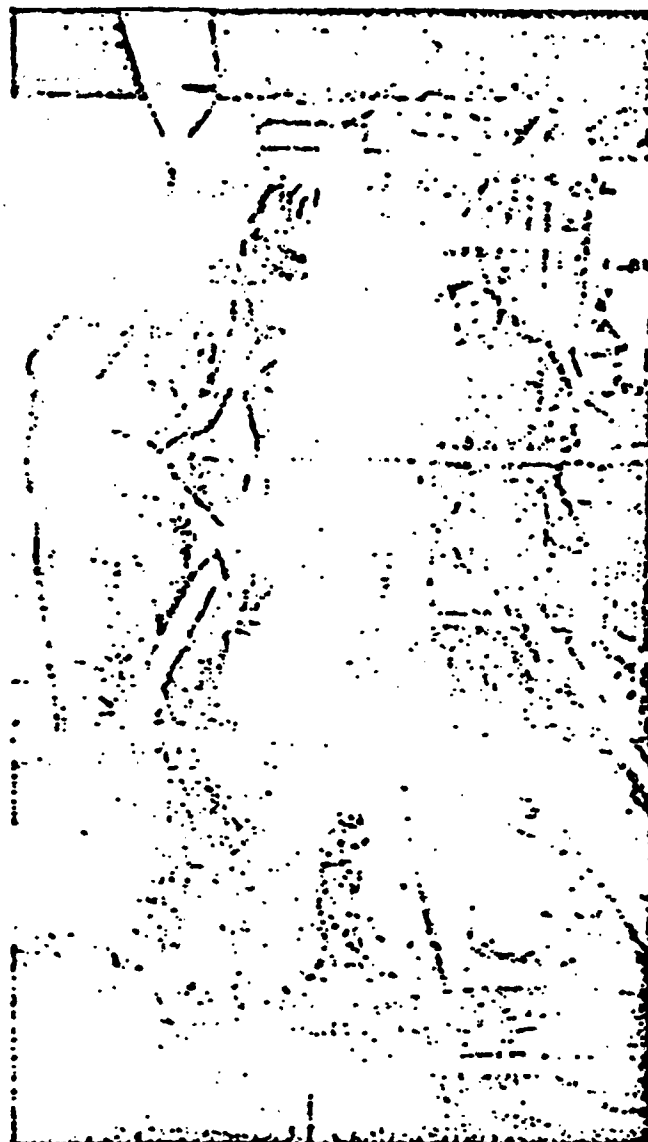
will not be known until the end of the century; but the high mortality rates of today suggest what may be expected in the future. If working conditions are not significantly altered, asbestos exposure can lead to 17,000 deaths from lung cancer, 10,000 deaths from cancer of the pleura and peritoneum, and 10,000 deaths from asbestosis, according to projections by Dr. E. Cuyler Hammond of the American Cancer Society.

The first case of asbestosis did not come under medical attention until 1900, 22 years after asbestos was mined on a large-scale basis. The victim, a British textile worker, had inhaled the asbestos dust stirred up by the carding machine he had operated for 14 years. Ten other men had been his co-workers in the carding room. All died before their thirtieth birthdays.

Since the recognition of asbestosis 72 years ago, the disease has been widely studied the world over, from the mines of South Africa to the mills of Quebec. Today experts believe that asbestosis is one of the most debilitating of the pneumoconioses—lung diseases caused by dust inhalation. Erupting 20 to 30 years after the exposure period, the disease exhibits no warning symptoms to mark its early stages. Many studies have uncovered cases of the disease in which the exposure was relatively light and did not continue over an extended period of time.

Although four varieties of asbestos are used commercially, chrysotile asbestos, mined primarily in Quebec, accounts for 95 percent of world production. Under high magnification, chrysotile fibers resemble fine polished wire or strands of silk. Strong, soft and flexible, they can be woven into fabric.

Chrysotile, however, is dangerous medically. When inhaled, the needle-like fibers become trapped in the lower bronchioles of the lungs. Normally, protective cells called phagocytes destroy



*The asbestos worker mixing cement is partially protected by a respirator. The asbestos fibers in the air, however, endanger his fellow employees, just as his dust-laden clothes are a menace to his family. New OSHA standard requires that asbestos materials be mixed in closed containers.*