



LEAFLET FOR EMPLOYERS

SILICOSIS AMONG STONEMASONS

DURING the eight years 1940-47, 560 men who worked on sandstone are known to have died from silicosis, or silicosis accompanied by tuberculosis; of these, 377 were sandstone masons. These figures give cause for much concern and point to the need for a drive to modernise and extend their preventive measures in the light of modern standards.

Silicosis is slow in development and progress. The effects of breathing siliceous dust may not be apparent for several years; but once the dust has gained entrance to the lungs in sufficient quantities, a degree of silicosis accompanied by a greater liability to pulmonary tuberculosis is certain. There is no known cure for silicosis and the inhalation of an avoidable quantity of dust may therefore result in much unnecessary suffering and also the loss of a craftsman to the trade.

It cannot be too strongly stressed that the absence of a visible cloud of dust is not an indication of safety. The silica particles which are able to get into the finer recesses of the lungs and therefore the most dangerous are too small to be visible to the naked eye unless in very dense quantities, when they appear in bright light as a smoke or cloud. This does not mean that visible dust is harmless, since the larger visible dust particles are always accompanied by a cloud of invisible ones.

The risk of contracting silicosis is greater with some kinds of stone than others, which explains why the incidence of this disease among stonemasons varies over the country. The most dangerous dusts are those from the sandstones, gritstones and, to a lesser degree, the

granites. This leaflet is addressed especially to those employers whose masons work on these kinds of stone.

Investigations into the dust content of the atmosphere at the breathing level of workers during work in many different processes, lead to the conclusion that the action of the wind can have a most important beneficial influence. The Mason Banker-hand when working in the open should be able to stand clear of the point of origin of the dust and to have the advantage of the wind in removing the dust but when working in a shed or workroom other precautions should be taken. The dust produced by neighbouring workers also often reaches him, especially if the bankers are closely placed and particularly during brushing.

It is therefore recommended that the precautions indicated below be adopted:

(1) Working wet wherever possible is a great aid in suppressing dust, although water sprays will not trap all the finer particles of dust.

(2) Exhaust draught should be provided to control the dust given off at the tools of lathes and planing machines when working siliceous stone dry. Pneumatic chisels should have a compressed air operated injector suction applied to carry away dust created at the chisel point.

(3) Well applied general ventilation may be of great importance in reducing the amount of dust breathed by stonemasons. As far as weather conditions permit, this work should be carried out in the open yard.

The workers should be instructed to take advantage of any wind by standing sideways to the direction of the wind, the work being placed on a suitable turn-table to facilitate an easy change of standing position. Obstructions to the wind should be as little as possible so as to allow it to take full effect.

(4) Where possible, the work of several banker masons should be so arranged in the yard or shed, that the dust created can be dealt with by a suitably designed exhaust system. Where this is not possible, provision for each mason of a separate moveable exhaust hood, connected by a flexible pipe to fixed exhaust ducting, should be considered. The stone being dressed may be placed on a turn-table to enable the dust created to be directed as far as possible into the exhaust hood. Where this method of working is adopted, masons should work as far apart from each other as possible.

(5) For some stone dressing operations done with hand tools, a rubber glove for the left hand, incorporating an exhaust nozzle operated by a compressed air injector can be worn. An example of such a glove can be seen at the Safety, Health and Welfare Museum, Horseferry Road, London.

(6) Dust drawn away from a workroom by exhaust systems should not be blown straight

out into the atmosphere but should be collected in a dust collecting apparatus outside the workroom.

(7) Masons should be provided with and encouraged to wear an efficient respirator at all times when dust is being created by themselves or their neighbours. It is particularly important that respirators should be worn during the operations of punching or roughing.

(8) Before brushing off accumulated dust and fragments of stone from the work the debris should first be wet.

(9) Attention should be given to maintaining a high standard of general cleanliness in the yard, accumulations of stone debris and dust should be swept up and removed regularly after being first wetted to prevent the stone dust being blown about.

(10) The degree of success obtained by these preventive measures will be in proportion to the enthusiasm of the employers together with the knowledge and co-operation of the workers. In this highly skilled work, therefore, the education of all workers, particularly the younger ones coming on, is essential. To attain this, a positive drive by employers by means of lectures and discussions offers the best chance of success.

Note.

There are statutory obligations under the Factories Acts, 1937 and 1948, and also certain regulations in force thereunder for the protection of persons employed against the inhalation of dust given off in connection with any process carried on. Some of these may be applicable to the processes carried on by the Employer who receives this leaflet and to whom assistance and advice will be gladly given by the Inspector of Factories in charge of the District in which the work is done.