

References to Recent Literature - 7

obtain exact reproduction of density and contrast, and all are described in this paper in some detail.

- 29 BASIC FACTORS IN INDUSTRIAL RESPIRATORY PROTECTION. L. Teleky. Mittell. Volksgesundheitsamt. Nos. 1-3, pp. 3-7, 20-4, 27-34 (1938). (Austrian).
The author thinks of industrial respiratory protection as including more than simply exhaust systems and respirators. Often the most effective means of protection is provided by abandoning the use of dangerous substances or by changing the process and methods to eliminate a hazardous gas or dust. In preventive work a prompt recognition of the danger is imperative. Dust preventive measures are described, such as enclosure of dusty processes, wet methods, etc., together with their effects and limitations.
- 30 RESPIRATOR FOR USE IN DUST-LADEN ATMOSPHERES. THE MARK LV DUST RESPIRATOR. S.A. Sadi, H.L. Green, G. Davies, U.S. Nicholson, A.S.G. Hill and H.H. Watson. Chem. & Ind. 57, 781-81 (August 20, 1938). (British).
The requirements for a dust respirator are stated and the development of a new respirator is given in detail. The filter material of the latter is made of 20 per cent by weight of chrysotile asbestos fibers and 80 per cent merino wool and they are held in place much the same as in several American models. Most of the tests for filtration efficiency were made with carbonaceous smoke of 0.18 micron size, although some tests were made with a fine flint dust. The authors feel that its efficiency exceeds that required by the U.S. Bureau of Mines, whose methods of testing are somewhat different.
- 31 GRANITE WORKERS' NASAL RESISTANCE IN BREATHING. E.C.J. Urban. J. Ind. Hyg. & Toxicol. 20, 635-40 (December 1938).
The filtering or protective action of the nose is considered important enough by some to justify selection of workers on the basis of nasal condition and by others as not of sufficient magnitude to act as an efficient filter. The author describes a series of tests on 139 Vermont granite workers, selected at random, in which the nasal resistance was measured with a special type of apparatus that pulled varying amounts of air outward through the nose. The results showed that nasal resistances do vary for different individuals but that the variation is slight, and would be apparent only over a period of years. At best, it is only one of the factors in silicosis and because of the possible tuberculous infection, other factors as personal habits, physical condition, and infection contacts, are more important.
- 32 DUST: ITS HAZARD, CONTROL, AND COLLECTION WITH ESPECIAL REFERENCE TO SURFACE PLANTS. G.E. Lynch. Min. & Metall. 19, 516-20 (December 1938).
The author summarizes the dust hazard from the plant engineers' standpoint and discusses in some detail certain principles of dust control. Dangerous dusts are those almost invisible particles below 10 microns in size, as particles above that size rarely reach the lungs; it is the particles below 10 microns which do not settle out of the atmosphere rapidly according to the laws of free settling. After particles of these small sizes are dispersed into the air it is almost impossible to collect or control them, so it is obvious that control must be applied at the source of the dispersion. A discussion is then given of the principal methods of control and collection which are available to engineers in their problems. The costs are described as being comparatively low and there is a possible salvage value in collected dusts, in addition to the other benefits.

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