

away large masses to reach the part which is on fire. The greatest depth to which coal may be piled safely depends (1) upon the kind of coal; (2) its temperature when stored; and (3) the weather. Some coals cannot be piled safely to a depth of more than 4 feet, while, ordinarily, a depth of 8 to 10 feet is safe; many coals, however, may be stored to a much greater depth. If the sulphur content of the coal is high it is probably better that the coal should not be exposed to rain, hence these coals are sometimes piled under sheds for this reason.

It is often found practicable to ventilate "run-of-mine" coal piles, also those containing fines, by forming a system of small air-shafts throughout the pile. This should be carried out as soon as the pile has reached its full height, either by placing numerous perforated pipes vertically throughout the pile, or by driving rods about 2 inches diameter throughout the whole area of the pile, from top to bottom, at intervals of about 16 inches; and then removing the rods. Precautions should be taken to see that fines do not enter and choke the air-shafts.

All coal piles should be carefully watched. The temperature may be observed either by lowering a thermometer into a hole in the pile or by feeling a rod which has been driven into the pile. Special care should be taken when the temperature reaches 150 degrees F., and if a temperature of 175 degrees F. is reached the coal must be removed and thoroughly cooled before restoring it to the pile. If water is available in large quantities the pile may be flooded. Small quantities of water do more harm than good.

Two coals from different localities should not be mixed in a pile, and greasy waste or other combustible foreign matter should be carefully excluded from the pile.

Coal should never be stored near to steam pipes, flues, or other sources of heat.

SUMMARY.

1. If possible, choose for storage a coal free from fines and which is known to have been stored successfully elsewhere.
2. Store in a shallow, well ventilated, subdivided pile, sections of which may easily be removed in the event of fire.
3. Build the pile in cold weather.
4. Watch the temperature of the pile, shovel the coal out, or flood it with water when it reaches 175° F.

OTHER AVAILABLE DATA.

Additional information of considerable value on the *spontaneous combustion of coal*, may be found in vol. VI (No. 83) and in the extra volume on "Weathering of Coal" (vol. VII, No. 388) of the series entitled "Coals of Canada," published by the Department of Mines, Ottawa. These two volumes may be had upon application to the Director, Mines Branch, Sussex Street, Ottawa.