

reach a place of safety it was necessary to swim across a particularly deep part. Two of the rescuers supported Bennett when the water was being negotiated. The others soon followed, and all the party were dragged into safety by the men who had been keeping the light aloft as a signal. Those men, it may be said, took turns until they were partially cramped at standing in the ice cold water keeping the lighted signal on their caps. Before the rescue was effected the water was up to their necks, and when Bennett was reached it was little more than a hand's breadth from the top of the roof.

TREATMENT OF DUST.

There has been considerable discussion concerning the relative merits of salt, as compared with calcium chloride for the treatment of dust on the roadways and chambers of coal mines. Salt of itself has not the power of attracting moisture, but owes what little power it does possess to a small amount of impurity which it contains in the form of magnesium chloride; what little moisture salt does attract is again yielded up at a very few degrees rise in temperature above the normal. On the other hand, calcium chloride retains its moisture at temperatures considerably above 350 deg. F., as this temperature is much exceeded in its manufacture. It holds moisture most tenaciously, even at the above temperature.

POINTS IN RESCUE WORK.

In carrying on rescue work those in charge should not overlook the temperature of the mines in which the work is being done, and the clothing of the men engaged in this work. Investigation has shown that it is impossible for a man to work in a place where the wet-bulb registers 85 degrees F., without suffering a rapid rise of body temperature, and consequent danger of heat stroke. It does not matter what the dry-bulb temperature is, for the power of the body to regulate its temperature adequately depends almost entirely on the wet-bulb temperature. If the air is hot and wet, the rescuer cannot keep the body temperature down by the evaporation of sweat. It is therefore advisable that the leader of the exploring party should take the wet-bulb temperature in the mine, and if this temperature is over 80 degrees F. the men should not be exposed for more than 30 minutes; the rescues in such hot, wet atmospheres should be stripped of clothes as far as possible. The mouthpiece of the apparatus used in such a temperature should be of a kind that the man can detach with safety, in order to drink, so as to keep up the supply of water in the body for sweating. All men who are expected to do rescue work under such conditions as above described should be practiced in a chamber filled with hot, moist air and observations should be made on their power to work, rectal temperature, need for drink, etc.

Coal-dust is not much used as a fuel in this country, and therefore it is interesting to note the opinion of Mr. R. K. Meade, who has had considerable experience with pulverised fuel in America. The coal most suit-

able is one rich in volatile matter, such as gas coal or lignite, but others less rich can be successfully burnt if ground very fine. The cost of grinding is said to be about the same as the cost of gasifying, and since 25 or 30 per cent. of the available heat is lost in a gas-producer plant, Mr. Meade considers that pulverised fuel has the advantage over gas in the matter of economy. It is also possible with coal to obtain a higher temperature than with producer gas. For the effectual combustion of coal-dust a capacious and preferably brick-lined combustion chamber is desirable, and for this reason coal dust, although very successful in metallurgical work and cement burning, has not achieved much success in boiler firing. The dust is forced into the furnace and thoroughly mixed with air by means of an injector fed by a screw conveyor, and supplied with air at a pressure of about ten ounces. It may be remembered that an attempt was made at the Glasgow Exhibition to run an internal combustion engine of the Diesel type on coal dust fuel, but it was unsuccessful.—Science and Art of Mining.

A Swiss experiment for the transformation of crude oil into liquid gas is reported by the American Consul at Zurich to have met with great success. The product is a transportable liquid, which is simply evaporated as used, and can be used for liquid, heating, cooking soldering, and welding purposes. The gas is non-poisonous and three times less explosive than ordinary gas. The installation cost is said to be low, and manipulation simple and without danger. If mixed with oxygen liquid gas produces a heat so intense that an ordinary bar of iron 1 inch in diameter can be cut in two almost instantly by placing it in the flames of a liquid gas burner. The new gas is competing successfully with coal gas and electricity.

The report of the Board of Conciliation appointed to enquire into the complaints of the employees of the Cumb. Coal & Railway Co., Springhill, N. S., was made public on July 24th.

As regards recognition of unions, the Board's finding is that it should be left to the employers' discretion to decide how far they will recognize organizations having central authority outside of Canada and controlled by interests that may at any moment engage in acute competition with Canadian producers.

The report, temperately and carefully phrased indicates that the Board does not consider recognition of the U. M. W. A., either necessary or desirable.

As if to lend dramatic force to this report, two incidents occurred in Cape Breton. One was a brutal assault on an old man by the pickets of the U. M. W. A.; the other an attempt to blow up the house of the manager of one of the Dom. Coal Company's collieries.

For the first incident the U. M. W. A. is directly responsible. As for the second instance it cannot be held guiltless.

We are confident that the U. M. W. A. will not flourish on Canadian soil. The organization proclaims its own unworthiness. Its ways are ways of violence and hate. It glorifies selfishness and is altogether unlovely.—Can. Mining Journal.