

immediate use underground must be kept in a box provided for the purpose until they are to be used, and there must be no detonators in the said box. 58—Every miner shall attend to the condition of his working, and the same must be kept properly timbered, where necessary. If this for any reason cannot be done, they must leave their working at once, if remaining at their work is attended with the least risk. 59—If the ventilation of any working be such that an erect candle, newly trimmed, will not burn brightly for at least five minutes, workmen must not on any account remain in such working. 60—Before firing a shot in any place which is likely to hole that place into another, the person about to fire the shot shall first examine the place into which he is likely to hole, satisfy himself that it is safe for firing, and that no person is in it at the time, and shall take precautions to prevent any person going into either place, until the shot has been exploded. 61—All holes fired in the mine must be charged in such a way that no more than five inches of stemming or tamping shall be used. In case of a miss-fire, no attempt shall be made to remove the stemming, but another cartridge must be placed on top of it, and one or two inches of additional stemming. The latter cartridge must then be fired in the usual way. If the bottom cartridge or cartridges should not be fired by this means, the hole must be left and information given at once to the mine foreman or mine shift-boss. Further, in case of miss-fire, no one shall enter the working where such miss-fire has occurred before the lapse of twenty minutes, unless he be using a fuse which cannot by any possibility hang fire. When holes are fired by electricity, the person charging the hole shall see that, during charging, the battery is locked up, so that no one can get at it, and he shall keep the key in his pocket, or he shall see that the battery is not connected to the cable until the charging is complete and every one is out of danger. 62—All workmen must understand when the signal two bells is sent from the surface that someone is about to descend. They shall then send the lower cage or skip away empty.

GENERAL REGULATIONS.—63—No person shall wilfully damage, or, without proper authority, remove or render useless any fence, manhole, place of refuge, means of signalling, signal notice, or notice board, or anything in or about the mine. 64—All persons who are casually employed underground (carpenters, smiths and others) shall be amenable to the act and these rules, and shall make themselves acquainted with the same. 65—Every workman shall strictly adhere to the general rules of the Inspection of Metalliferous Mines Act, 1897, and to these rules, and to the regulations contained in the various notices fixed for their safety and guidance in or about the mine, and any person who may observe or have a knowledge of any neglect or infringement of the same, shall report the case to the mine foreman, so that immediate means may be taken for applying a remedy. 66—No person shall depute anyone to do his work without the consent of his superior official. 67—If any workman shall find any of the plant, driftways, or workings in or about the mine in such a state as in his opinion to endanger life or limb, or if the ventilation be in such a state as in his opinion to affect the health of persons working in any part of the mine, he must at once call the attention of the mine foreman or mine shift-boss to such supposed defect. 68—All notices fixed in or about the mine must be authorized by the mine foreman, and no person shall in any way damage the face, or remove any such notice, or any marks left by the mine foreman or mine shift-boss. 69—Every person is enjoined to thoroughly acquaint himself with the General rules of the Metalliferous Mines Act, 1897, and with these rules. 70—Any workman who neglects to observe any of the provisions of the Metalliferous Mines Act, 1897, and these rules, or refuses obedience to the orders of the officials, or interfere with, or impedes, or obstructs any person in the discharge of his duties, or interferes with or obstructs the working of the mine, shall be suspended or ordered out of or from the mine. 71—Any person suspended or ordered out of or from the mine for breach of the Metalliferous Mines Act, 1897, of these rules, or for any other cause, shall not be employed again until authorized by the superintendent. 72—Where the duties of more than one department are entrusted to the same person, that person shall be bound by and observe the rules attached to all such departments. 73—All workmen having occasion to pass through a fence, gate, door, or brattice, shall immediately close the same. 74—Any person employed in or about the mine wilfully or negligently doing anything (whether expressly prohibited by the foregoing rules or not) likely, in the opinion of the foreman, to endanger life or property, or anyone observing anything aforesaid that is forbidden being done and not reporting the

same to the official in charge, will be deemed guilty of a breach of these rules.

SIGNALS.

For Regulating the Movement of the Cages, Skips and Kibbles in Shafts. They must be Strictly Observed by Enginemen, Pit-Topmen and Miners, as Well as by Every Other Person Ascending or Descending the Shafts.

1—One bell from the mine means all clear, and the engineman is to lift at the same speed as when raising ore. One bell given when the skip, cage or kibble is in motion means stop at once. One bell given by the engineman to the mine, after cages or kibble have stood for more than the ordinary drawing intervals, means that he is about to move them.

2—Two bells mean lower, except when the cage is at the bottom level and the signal is sent from the surface; they then mean that the cage is to be stripped. This signal should always be given before putting on or taking off a car at the bottom level if there are boxes on the cages for the purpose of drawing water.

3—Three bells means men about to get on to the cage, skip or kibble, and the engineman must give one bell back to the shaft foot to signify that he has received "No. 3 Men" signal. Men may then get on the skip, cage or kibble. After that, one bell given from below to the engineman means lift slowly, and two bells mean lower slowly.

4—Four bells, followed at a short interval by two bells, mean lower to the next level where there are more than two levels. Four bells, followed at a short interval by one bell, means lift to next level. If men are above to ride, they must give three bells and receive one bell back from the engineman before giving this signal.

5—Five bells means start pumps. This signal given when pumps are going means stop them.

6—Four bells, followed at short interval by 1, 2, 3, 4, etc., bells mean send down tools to 1st, 2nd, 3rd, 4th, etc., level.

7—Five bells, followed at short intervals by 1, 2, 3, 4, etc., bells, mean send down explosives to the 1st, 2nd, 3rd, 4th, etc., level.

9—Ten bells mean that men are about to get on cage, skip or kibble, and that there has been an accident. The engineman must at once attend to this signal, and give one bell to the shaft foot. On receiving one bell afterwards from the bottom, he must lift slowly, as stated for signal 3.

A Mr. John A. Wauchope, who, as some people have reason to know, has had some short experience of mining in British Columbia, somewhat injudiciously perhaps, under the circumstances, contribute the "BEAM" tributes an article to the London PROCESS AND *Mining Journal* of recent date on the BRITISH COL- subject of "The low grade ores of UMBIA ORES. British Columbia, and how to make them profitable." This, however, is a subject of very great moment in this country, and if Mr. Wauchope or anybody else can suggest a cheaper or more effective mode of treatment for our low grade ores than that at present in operation, he will be accredited with having contributed in an important degree to the future industrial welfare and progress of mining in the Province. We are inclined to question whether Mr. Wauchope has succeeded in this respect. His proposal, in short, is nothing more nor less than that the low grade ores of British Columbia should be treated by the so-called "Beam process," which he asserts has been in operation in Denver, Colorado, "for some considerable time with the most satisfactory results;" that for two or three years it has been subjected to the severest investigations and tests that could be applied, under the immediate control and supervision of well-known scientists, with the result that "it is being demonstrated more every day that the principles involved in treating ores by this process are so simple as to cause the amazement of everybody who have visited the Company's works