

ly of the events decided upon so that your team may practice them. It is essential that you do this in order to assure that your team can perform within the time limit fixed for each event. The programme must President Taft is limited.]

be run off with snap and speed, since the time of

Rule 10.—Souvenir badges of the American Red Cross, souvenir buttons of the U. S. Bureau of Mines, and souvenir programmes will be presented to individual entrants; a souvenir first air box to each team entering; a souvenir pennant with the name of the company sending entrant, and to be used on the field as a marker, to be presented to the company represented.

Rule 13.—Each team will select its own subject in addition to the five operating members thereof, or will have a miner present, selected for them.

Rule 14.—In this exhibition, the correct use of the roller bandage of the triangular bandage will be given the same credit. In dressing wounds, the first aid packet only will be used. There will be no restrictions as to the make of the first aid packet. Teams are to bring their own material, consisting of splints, cotton, bandages, first aid packets, picric acid gauze, tourniquets, stretchers, and at least two woolen blankets.

THE BENONI CONSOLIDATED PLANT.

A Modern Gold Mill.

Our Porcupine readers will be much interested in the following description, culled from the South African Mining Journal, of a large new plant that is soon to be put in commission. It represents the last word in mill equipment:

At the present time the mine is only being developed by the east and central shafts, and the ore hoisted through these two shafts will be carried by bottom discharge hopper trucks, and dumped direct into the main ore bin at the reduction works, which has a capacity of 1,000 tons. From this bin the ore will be fed on to conveyer belts and carried direct to the crusher station. The crusher station, which is of steel construction, is laid out for double sorting. The crushers are of the jaw type, 30 in. by 28 in. in size, and are four in number, three serving the intermediate sorting belts and one the coarse sorting belt. They are belt driven from a countershaft operated by a 150 h.p. motor. The fines from the Nos. 1 and 2 fines bins are carried by a belt, which, after passing over a weighing machine, feeds them on to a shuttle belt conveyer erected above the mill bins. This conveyer distributes the fines to the mill bins, which have a capacity of 2,000 tons. Both the mill bins and building are of steel construction.

The battery consists of 55 stamps of 2,000 pounds weight, operating in open-fronted mortar boxes, which stand on anvil blocks bolted to heavy concrete pile blocks. The king posts, which are of cast steel of special design, are secured to heavy wooden timbers bolted to the concrete pile blocks, whilst the guide beams are also of cast steel and are fitted with cast iron guides for the stamps. The stamps are arranged in batteries of five each, each battery being electrically driven. The tube mill plant consists of four 22 ft. by 5 ft. 6 in. tube mills, each operated by a belt drive from an A. E. G. motor. The shaking tables are of the usual type, and are 28 in number—seven for each tube mill. The pulp, after passing over the amalgamating tables, is lifted by two 8 inch pumps to a second series

of four Stadler classifiers, the overflow from which passes to the cyanide works, whilst the underflow is returned to the tube mill circuit.

The overflow from the Stadler classifiers, just mentioned, passes to primary and secondary Stadler classifiers, the final underflow from which goes to a 21 ft. diameter Caldecott filter table, whilst the final overflow runs to three 21 ft. diameter Arbuckle dewatering cones. The dewatered products from these two sets of apparatus pass together to the first set of four mixing agitators, 8 ft. diameter by 22 ft. high, where they are mixed with the required quantity of strong cyanide solution, and then pass to a series of Way-Arbuckle air agitators, in which the gold dissolving process is carried out. These agitators are so arranged that they can be used in series or in parallel as desired, it being possible to short-circuit any one tank or section of tanks as required. The combined sand and slime, together with the gold in solution, is then lifted by two 5 in. pumps to a Stadler classifier, the overflow from which goes to the first set of three 21 ft. diameter Arbuckle desolutionizing cones, the underflow from which cones joins the underflow from the Stadler classifier and passes to the second set of four mixing agitators 8 ft. in diameter by 22 ft. high, where they are mixed with a weak wash cyanide solution. The sludge from these agitators passes to a second series of primary and secondary Stadler classifiers, the final underflow from which is treated on a second 21 ft. diameter Caldecott filter table.

The extractor house is fitted with eight 12-compartment steel extractor boxes and with the necessary motor-driven solution pumps. The solution, after passing through the boxes, gravitates to the strong solution tanks, from which it is lifted by two 5 in. pumps to the first set of mixing agitators. The clean-up room is fitted with the usual appliances, and is under the same roof as are the shaking amalgamating tables in order to simplify supervision. The whole plant has been laid out with a view to simplify joint administration with the plant to be ultimately erected by the Apex Mines (gold section), and at the same time in such a way as to permit any unit of either plant to be enlarged to any extent that future developments may render necessary.

CANADIAN MINING INSTITUTE — WESTERN BRANCH.

Eleventh General Meeting.

The eleventh general meeting of the Western Branch of the Canadian Mining Institute was opened at New Denver, Slocan Lake, B.C., on Wednesday evening, September 13, Mr. Robert Hedley, of Vancouver, B.C., chairman of the Branch, presided, and among those present were the following: Wm. Fleet Robertson, provincial mineralogist, and E. Jacobs, branch secretary, Victoria; S. S. Fowler and A. H. Gracey, Nelson; Thos. Kiddie, Vancouver; M. E. Purcell, superintendent of the Consolidated Mining and Smelting Co.'s Centre Star group of mine, Rossland; A. J. Becker, Lucky Jim mine, Slocan; John Vallance, superintendent Standard mine, Slocan, and the following visiting members: C. E. LeRoy, of the Geological Survey, and Dr. A. W. G. Wilson, Cosmo T. Cartwright, and L. Heber Cole, all of the Mines Branch, Canada Department of Mines, Ottawa. Other visitors included M. S. Davys and H. M. Ridge, London, England; W. Anderson, C.E., Vancouver; H. Nation, Bureau of Mines, Victoria; A. H. Tuttle, Wilcox mine, Ymir;