

periments, but more satisfactorily since balls to take up side pressure have been employed in addition to those carrying the weight. In their present form, the bearings have two rows of sixteen  $\frac{3}{4}$ -inch balls, and two rows of twenty-six  $\frac{1}{2}$ -inch balls each. To distribute wear, the bearings are arranged so that they can be moved into four different positions. Some of the bearings have now been under test more than two years, Podolski reports, but much trouble was at first experienced with the bearings for the balls. For a few months these have been made of Krupp's crucible steel, which is thought to have quite overcome the difficulty. It is found that an average saving of 15 per cent. of the total power has resulted on the four electric railways experimented on, and as high as 24 per cent. on one line, with 35 per cent. under the most favorable conditions. In every case a saving has been shown, even on steep grades.

## Mining Matters.

It is reported in Quebec that gold yielding \$20 a ton has been discovered near Lorette, Que.

Bonham & Munroe have commenced business as mining brokers with offices in Canada Life Building, Montreal.

A very rich strike of placer gold is reported from Tete Jeune Cache at the headwaters of the Fraser river, B.C.

The Newcastle Coal Co. at Port Morien, C.B., has given a contract for a considerable amount of mining machinery again.

The Crow's Nest Pass Coal Co. turned out 2,000 tons of coke from the oven at Fernie, B.C., in the month of February.

The Crow's Nest Coal Co. has secured the contract to supply the British fleet at Esquimaux with coal for the present year.

A letter from A. P. Low, of the Geological Survey staff, which is wintering on Hudson's Bay, confirms previous reports of the existence of deposits of magnetic iron ore on the shores of the bay.

At the annual meeting of the Mining Society of McGill University Dr. Harrington was elected honorary president, Mr. McMillan was elected president, Mr. Cowans, vice-president, and Mr. Archer, secretary-treasurer.

It is stated that work will soon be started upon the erection of a 400-ton smelter at Greenwood, B.C. The capitalization of the company is \$400,000, and J. P. Graves, prime mover of the Old Ironsides and Knob Hill, is the promoter.

The following gentlemen are interested in active mica mining near Kingston, Ont.: Kenz Bros., bankers; E. H. Smyth, Q.C., I. Franklin, merchant; Mr. Chown, of the Webster Co., Sydenham, and J. L. Gemmill, Perth, Ont.

The zinc mine situated between Rossport and Schreiber on the C.P.R., about twelve miles from the mouth of the Gravel river, which was sold to a Belgian syndicate last year by Jno. McKellar, Fort William, Ont., is shipping freely to Belgium, where it is stated the ore nets almost \$40 per ton.

W. C. Caldwell and T. B. Caldwell, accompanied by Arch. Blue, director of the Ontario Bureau of Mines, made a visit to the gold mines at Ardoch, Addington county, Ont., owned by the Boerth Mining Co., Detroit. A boarding house has been erected and some sixty men are at work. Five large furnaces and a pulverizer are used in reducing the ore, which has proved to be rich, assaying from \$24 to \$160, and \$50 to \$500 per ton. The mine is situated not far from the Kingston & Pembroke Railway, and is on the Mississippi river.

The lead and zinc deposits in Tudor township, Hastings county, Ont., are beginning to attract attention. The Hollandia and Catharine mines are said to have assayed very heavy values in lead and zinc. This is the first discovery of zinc in Hastings county, although its presence in the mineral belt was referred to about twenty years ago in a paper read by T. Campbell Wall-

bridge before the Royal Geological Society of London. One of the deposits is only ten miles from Millbridge on the Ontario Junction Railway.

The summer mining class of McGill University, which proved so successful last year, will be continued this year. The party will leave McGill, under Dr. Porter, about the 25th of April and will spend about four weeks in the work. This year they go to the United States and will visit the anthracite mines of Central Pennsylvania. Here they will be able to see some of the largest coal mines in America, and will be able to observe the railway transportation there carried on, as well as the actual mining operations. Exactly what mines will be visited is not yet definitely settled, but invitations have been sent to Dr. Porter from several mines.

## Railway Matters.

One thousand freight cars are to be built by the C. A. and O. A. & P. S. Railways this year.

The Central Vermont Railway was bought at auction by a representative of the G.T.Ry., March 21st, for \$7,000,000.

G. L. Mattice, Montreal, is engineer-in-charge of construction of the Rutland & Canadian Railway from Aldburgh to Novar Junction.

It is said that the C.P.R. will build a coal wharf and sheds at St. John, N.B., so that it may be in a position to send 200,000 tons of coal per annum to Montreal.

—The judicial enquiry into the composition of the reports on the efficiency tests of the Green's Economizer at the Toronto waterworks main pumping station is proceeding before Judge Macdougall. The city engineer has ended the state of hostilities among the staff at the high level pumping station by discharging the whole staff and appointing Wm. Hall from the main pumping station in charge, and Woodward, of the Niagara Nav. Co., and McKeown, G.T.R., to fill the vacancies.

—The provisions of the Ontario Act dealing with the Niagara Power question rushed through by the Government at the end of the session are mainly two. The first provides that the Commissioners of Queen Victoria Niagara Falls Park may, with the approval of the Lieutenant-Governor-in-Council, enter into an agreement with the Canadian Niagara Power Company for the surrender by the latter of its sole right to use the waters of Niagara river within the limits of the park, upon such terms and conditions as to abatement of rent, extension of time for carrying out the agreement of 1892, variation of that contract, etc., and that any arrangement so entered into shall be binding. The second resolution provides, in brief, that the Park Commissioners may enter into contracts with other persons or companies to enable such persons or companies to use the waters of the Niagara within or without the park for power purposes, but it does not add, as in the case of the former resolution, that any such contract is to be binding.

## FIRES OF THE MONTH.

March 3rd. J. Stuart's machine shop, Thorold, Ont.; damages, \$18,000; insurance, \$10,000.—March 12th. Hamilton Radial Railway Co.'s workshop, Hamilton Beach; damages, \$5,000; fully insured.—March 22nd. Elliot & Brooks' paper box factory, Adelaide street west, Toronto; damages, \$25,000; insurance, \$16,000.—March 28th. G. G. Bryant's sash and door factory, Sherbrooke, Que.; insurance amounting to \$5,300 will not cover loss.