

DURING the past year the Royal Electric Company, of Montreal, have been busy replacing all the old step down transformers in this city with new ones, suited for the low frequency alternating current which they are now supplying for incandescent lighting. Last summer the alternations were about 15,800 per minute, while this year they have been reduced to 8,920. This change of frequency has had the effect of so much reducing the "back kick" in the iron of the transformers used last year, as to cause them to draw a large amount of current, and consequently render them liable to burn out; hence the replacing with new ones. Alternating current motors have also had to be re-wound to enable them to run on this circuit. The first means employed to adapt high-frequency motors to the low-frequency was to simply place a small kicking coil in the circuit, but this method has been abandoned, as by far the best results are obtained by re-winding. This has to be done with smaller wire and nearly double the number of turns. We have seen a fan motor wound for the 104 volt high frequency (which is still supplied by the Citizens' Light and Power Co.) run splendidly on the 52 volt low frequency. In all probability the 104 volt circuit will soon be changed from a high to a low frequency, when all transformers on the line will have to be changed in the same way as the Royal Electric Co. have been doing.

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## Industrial Notes.

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LINDSAY, ONT., recently ordered a road roller and other good roads machinery.

THE J. A. SAYWARD Lumber Company has decided to build a saw mill at Nelson, B.C.

THE new match factory at Buckingham, Que., is reported to be doing a good business.

THE Frost Wire Fence Co., of Cleveland, O., contemplate starting a branch factory in Ontario.

CITY Engineer Beaudry of Sherbrooke, Que., is preparing plans for a new system of waterworks.

THE Northern Elevator Company is building a thirty thousand bushel elevator at Regina, N.W.T.

THE Rathbun Company, Deseronto, Ont., is erecting a large lumber shed on its dock at Picton, Ont.

W. H. KELLY, Buckingham, Que., is building a new steam saw mill of a capacity of 50,000 feet per day.

A LARGE pulp mill will be, it is said, built at once at Escuminac, Que., on the Baie des Chaleurs Railway.

A NEW Catholic church is to be erected in Barford, Que. The contract has been let to Paquette & Godbout for \$14,800.

EXTENSIVE additions and improvements will be made to the Russell House, Ottawa, this summer, at a cost of about \$12,000.

JAS. A. SIMPSON, formerly engineer at the Berlin, Ont., Water Works pumping station, has been succeeded by Wm. Collard.

THE Arrow Milling Co., Birtle, Man., has made a contract with Stuart & Harper, Winnipeg, to overhaul and improve their mill.

A LARGE number of grain elevators are being erected in Manitoba this year, and the aggregate capacity of the province will be increased over 25 per cent.

THE Granby Rubber Co.'s box factory is now turning out 500 cases a day. The Robb Engineering Co. equipped the power. The factory is 36 x 84 feet.

C. J. ROBERTSON, printers' machinery and supplies, 12 Phillips square, Montreal, will make an interesting display at the approaching exhibition in Montreal.

JOHN M. MOORE, civil engineer, of the London, Ont., waterworks staff, has made a report to the town council of Ailsa Craig, Ont., on their proposed waterworks scheme.

AT the last regular meeting of the Brockville, Ont., branch of the C.A.S.E., it was decided to hold the annual convention in Brockville, Thursday and Friday, the 19th and 20th August.

J. R. BOOTH and G. A. MOUNTAIN, C.E., engineer of the C.A.R. system, have been in Parry Sound superintending the erection of a one million bushel grain elevator in that town.

THE Hamilton Smelting Works is sub-letting work, such as unloading and loading cars, and so forth. P. C. Peterson, ex-foreman at the works, has been awarded three contracts.

PEUCHEN & Co., acetic acid manufacturers of Toronto, Ont., will establish a branch at North Tonawanda, N.Y. The firm has leased the old buildings of the Spang Manufacturing Company.

THE town of St. Marys, Ont., through the medium of W. K. McLeod, secretary of the Board of Trade, is investigating the question of putting in a system of waterworks for the town.

RUDOLPH HERRING, the New York engineer, has returned to Winnipeg to complete his investigations as to the best source of the city's water supply. He is said to favor artesian wells.

THE sum of \$1,800 was allowed the Gartshore-Thompson Pipe and Foundry Company for its loss by fire a few weeks ago. The loss was much greater, but the foundry was not fully insured.

THE Jenckes Machine Company, Sherbrooke, Que., has just completed the balance of the sawmill machinery for the Montague Paper Company, Lake Megantic, which expects to start its new mills at once.

HARRISON BROS. have let the contract for the erection of a 75-barrel flour mill at Holmfild, Man. Stuart & Harper, of Winnipeg, who represent the Stratford Mill Building Company, have the contract.

THE Three Rivers Iron Works Company has been awarded the contract for the laying of mains for the waterworks and sewerage system of Renfrew, Ont., for \$51,874. The stand pipe, pumps and plant will be awarded as a separate contract.

THE Cooper Machine Company, Limited, 92 Adelaide st. east, Toronto, report a good demand for their "Imperial" gasoline engine, and have recently made shipments to Bracebridge, Ont., Goderich, Ont., and Pawtucket, Rhode Island. They are increasing their facilities by the addition of larger machinery of the latest design. The firm will make an exhibit at the Toronto Industrial Fair.

A NEW industry for Guelph, Ont., is the Guelph Linseed Oil Company, Limited. This business will be carried on in a portion of the building occupied by the Guelph Flax Mill Company, and will be run in connection with the present business under the management of S. J. Taylor. The company will manufacture linseed oil, oil cake, flax meal and green tow, and will give steady employment to about 20 men.

THREE new bridges have recently been completed at the Record Foundry and Machine Co.'s works in Moncton, N.B. They are for College Bridge, Blackville, N.B., and Campbell's, near Nauwigewauk, N.B. The Campbell bridge consists of a single span of 240 feet in length. The College bridge consists of two spans, each of about 200 feet. The Blackville bridge is smaller, being a single span of about 200 feet.

IT is understood that the Minister of Railways and Canals has authorized the construction of a new bridge to take the place of the present bridge over the Lachine canal at Seigneurs street, Montreal. The new bridge will be large enough for street car tracks as well as vehicle and foot passenger traffic. A new bridge may also be built over the canal at the foot of Atwater Avenue, which divides the city from St. Henri.

THE three sets of plans for the water and sewage systems of Nelson, B.C., prepared by Messrs. Cummings, Coyle and McCulloch, have been accepted by the council, and each competitor was awarded \$200. The reports favor Anderson creek as a source of water supply, and also agree as to the site for the reservoir. The estimated cost is between \$1,900 and half that sum. A. L. McCulloch has been appointed engineer in charge with a salary of \$200 per month.

THE work of restoring the malleable works is now in full swing, says the *Whitby Chronicle*, and will be pushed to completion as rapidly as possible. Jas. Gall has the contract for the stone and brick work. Don Valley pressed brick will be used for the front wall, and Whitby brick for the balance of the work. John Sykes & Son have the contract for woodwork. Goldie & McCulloch, of Galt, will supply the engines. It is expected that the works will be restored by September 1st.

MARSH & HENTHORN have succeeded to the foundry business of the Geo. T. Brown Manufacturing Co., Ltd., Belleville, Ont. L. W. Marsh has been accountant with the Geo. J. Brown Co. for about four years, and W. H. Henthorn has been mechanical superintendent for that company for about nine years. The new firm has already supplied three steam hoists to Wm. Gibson, M.P., for use on the Victoria bridge at Montreal, and in his quarries, and has several large orders on hand.

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