

A THEATRE to cost \$30,000 will be built in St. Roch's, Que.

THE Granby, Que., rubber factory is being extended. Neil & Kent have the contract at \$8,500.

THE Welland Vale Bicycle Co., St. Catharines, Ont., have shipped recently 50 wheels to Austria.

ARTHUR DENISON, Toronto, architect, has passed the Walkerton town hall, and taken it off the contractors' hands.

A CONTRACT for building a bridge over the Holland River near Bradford, Ont., will be let during the coming summer.

RIDGETOWN, Ont., has offered a large bonus and exemption to W. E. Hall, furniture manufacturer, Galt, Ont., to remove to that town.

THE Ontario Rolling Mills, Hamilton, Ont., lost no time in getting their premises into shape after the fire, and will soon have everything in as good condition as formerly.

RHODES, CURRY & Co., Amherst, N.S., recently obtained a contract to build 50 twenty-ton box cars for use on the extension of the Drummond Counties Railway at Montreal.

WORK at the Shawenegan Falls, above Three Rivers, Que., is to start shortly, and the hotel there has been reopened for the accommodation of tourists and people connected with the works.

DARTMOUTH, N.S., has a proposition before it to bonus a pulp mill to have a capacity of 20 tons per day. The promoters have secured options on suitable water power and land in the town.

THE Taylor Air Compressor Company, of Montreal, is installing a 500 h.p. plant at Ainsworth, B.C., and expects to distribute the power to mines within a radius of five miles. A full description of this plant will be found on another page.

THE Almonte, Ont., town council has been approached by the Perth Waterworks Co., asking if the council would be willing to enter into negotiations, even in an informal way, with the ultimate view of granting them a franchise for the supply of water and light.

THE Three Rivers, Que., Iron Works is completing the erection of a large brick machine shop and foundry, in connection with their already extensive works. The firm has large contracts on hand, which will give full work to their establishment for the next few months.

AT a recent meeting of the Essex County, Ont., Council the Road and Bridge Committee sanctioned the construction of the following: New bridge over River Canard, cost \$1,732; new bridge over Bell River, cost \$1,099; new bridge over Tremblay Creek, on county line between Essex and Kent.

IN April, 1897, the Cooper Machine Company of Toronto was incorporated, with \$20,000 capital, one-fourth of which was paid. Last month the creditors had a meeting, and their statement showed assets of \$4,800, against liabilities of \$5,500. An offer of 40 per cent was made and accepted.

THE local papers in Almonte, Ont., are discussing a system of water works for that town. The finances of the town are in good condition, and such a scheme might be put through; however, the laying down of the mains would be a most expensive undertaking, as almost every foot of excavation would be rock cutting.

JOHN McCONNELL, of McConnell's Electric Carriage Works, Guelph, Ont., has invented a carriage wheel which ought to prove a revelation in carriage manufacture. The new wheel is set on roller bearings and has no boxings to break or get loose. It is dustproof, and requires oiling once in a season, there being no friction to require the continuous use of oil.—*Guelph Herald*.

THERE was a meeting of the Iron Founders' Association of Montreal recently, in the reading room of the Laurie Engine Company. Among those present were W. H. Laurie, H. R. Ives, J. H. Garth, Thos. Monaghan, Wm. Rodden, John Laurie, E. Lamb and G. H. Weaver. During the evening a most interesting paper on "The Chemistry of Iron" was read by Ernst A. Sjostedt.

THE board of management of the public works of St. John, N.B., will receive tenders till April 1st for the supplying of about 3,116 tons of best quality 24 and 12 inch cast-iron water pipe, according to specifications and drawings prepared by Wm. Murdoch, Esq., C.E., engineer and superintendent S. and W. Supply, copies of which specification may be had on application to the director, A. Chapman Smith.

IN our last issue, THE CANADIAN ENGINEER stated that a writ had been issued against the Welland council of 1897 by the Waterous Engine Works Company, claiming damages for the non-fulfilment of a contract to purchase a fire engine. The statement, we find, is incorrect. A local informant states that our item might truthfully refer, however, to the village of Fort Erie, which is having some trouble with the Waterous Company.

THE secretary of the General Hospital, at Kingston, Ont., has been instructed to advertise for tenders for the reconstruction of the Watkins' wing, the cost of which is estimated at \$12,000. The plans provide for twenty rooms. The question of putting in an elevator has not yet been decided.

THE Somerville course of lectures for 1898 at the Natural History Society Hall, Montreal, has been announced. The following lectures will interest our readers: Thursday, March 24th—The Modern Steamship, by Prof. A. J. Durley, B.Sc., Assistant Professor of Mechanical Engineering, McGill College. Thursday, March 31st—Precious Metals Where they come from and how they occur, by Prof. F. D. Adams, M.A. Sc., Ph.D., president of the Natural History Society. Thursday, April 7th—Coal and Iron, by Osmond E. LeRoy, B.A., of McGill College. Thursday, April 14th—Our Railways, by Prof. Cecil B. Smith, M.A.E., Assistant Professor in Civil Engineering, McGill College.

IN the works of the Robb Engineering Co., Amherst, N.S., has a concern of world wide reputation. At present, in every department, the hum of industry is heard, not only during the day, but night. Recently there was a test of a Robb-Armstrong engine. This one, which is compound, goes to Europe to be placed in an electric installation, and will be completed and ready for shipment at an early date. It is 125-h.p. Besides this one just referred to, three compound engines of the same type, each 200-h.p., being made for a foreign order, two of 225-h.p. each, for the Rathbun Co., Deseronto, Ont., and two more of 150-h.p., each, simple, for St. Thomas, Ont. These engines are of the side-crank type. In another part of the premises a large boiler is being finished, which will go to Parrsboro, N.S. It is known as the Mumford improved patent boiler. It is entirely cased in, with furnace in centre, and the smoke returns round the outer part of the shell. The boiler is arranged so that the water has a positive circulation, and the steam is collected in a large horizontal dome at the top. The whole arrangement is such that a great saving in fuel is claimed to be effected.

THE new steel swing bridge across the Lachine Canal at Seigneurs street, Montreal, for which tenders have been called, is to replace the present old structure, which is too light in construction to allow of an electric car service. It has only a clear roadway of seventeen feet, and a total width of twenty-eight feet. The new structure will have a clear roadway of thirty-seven feet, with two sidewalks of four and a half feet in width, and a clear roadway of twenty-six feet. Its length will be one hundred and thirty-eight feet between ballast walls, and be about eighteen inches higher than the present structure. The Atwater avenue bridge across the Lachine Canal is expected to cost about \$75,000. The bridge is to be a swing bridge, with a clear span between abutments, ballast wall of two hundred and forty three feet. The total width of the bridge will be thirty-eight feet, giving five-foot sidewalks on each side. The bridge can be built during the season of navigation, the abutments being placed far enough from the canal bank, so as not to interfere with the canal walls. The centre pier is founded on concrete placed within a square made of piles, with rods passing through the walling pieces. The rest pier work down the centre of canal, is composed of cribs, with ten-foot openings, and will be about two hundred and ninety feet in length.

RECENTLY a number of the people of Sarnia, Ont., witnessed at the Doherty Stove Works a test of T. Doherty's latest improvement in iron casting—the transforming of cast iron directly into steel by an air blast, passed through the melted metal as it emerges from the cupola. For some time Mr. Doherty has been at work on a new method for decarbonizing iron in the process of casting and bringing the resultant metal to a higher grade of steel than was obtainable by his original process. The basis of the latter was the introduction of a steam jet to the cupola. The new process is based upon the use of compressed air. A specially designed cupola also forms part of the new process, we are informed by a local contemporary. The metal, as melted, drops in a small stream through the bottom of the receptacle to a receiver below, and as it falls through a powerful blast of air is directed against it, which blows out the impurities, which find escape through an opening in the back of the cupola. The effect of the introduction of air under pressure is marvellous. The carbon, sulphur and silicon in the iron can be eliminated to any extent desired by the foundryman by regulating the pressure, with the result of producing a steel casting suitable for the class of work for which it is required. At the test described the blast was regulated for stove plate casting and did not show the highest results obtainable, but it clearly demonstrated the superior character of the process over that of the original patent. Metal produced under the air blast process shows all the characteristics of steel under the hammer, the drill or the lathe, and there appears to be no doubt that Mr. Doherty has solved the problem of producing steel from ordinary pig iron at a single process, at once simple and cheap.