cannot be excelled in flavor anywhere in the world, and are superior to similar fruits grown in the U.S. It only requires that Canadian canned goods be properly introduced into foreign markets to command the trade.

THE Duryea Motor Wagon Co., whose vehicle won the first prize at the Chicago motocycle contest, informs THE CANADIAN ENGINEER that should an exhibition be held in Canada they are prepared to enter, provided the exhibition is "in the nature of a trial of speed and endurance, over any kind of course, for any distance." They add, however, that they are not prepared to enter a mere competition on a testing machine. We think they are right. A vehicle which will stand certain laboratory tests framed on pre-conceived theories is all very well, but what the public want is a vehicle that will get over the ground and do the work for which they purchase it. The vehicles that stood the laboratory tests were not the ones that got over the road when the race came to be run through the slush and mud of Chicago.

THE Applied Science Graduates' Society of McGill University was formed last June by resident graduates of the faculty. The objects of this society are, amongst others: (1) To establish a means of communication amongst over 230 graduates. (2) To awaken an interest in one another's and the coming graduates' welfare. (3) To draw the graduate and his Alma Mater closer together. The graduate wants information, the college wants support, and thus they may mutually benefit one another. Special points taken up or about to be taken up are: (*a*) The biographical index of graduates (extended). (*b*) Lectures by old graduates to resident graduates and students, which are to be published in THE CANADIAN ENGINEER. (*c*) An endowment fund to provide books for the engineering library. They have already 60 members. The officers are: Honorary-President, Prof. H. T. Bovey; President, W. J. Sproule; Vice President, M. L. Hersey; Council, W. A. Carlyle, J. M. McCarthy, T. W. Lesage, R. F. Ogilvy, W. F. Currie, H. T. Barnes, R. B. McDunnough; Sec.-Treas., Prof. C. B. Smith. The promoters of the new society are working with the energy and enthusiasm characteristic of McGill, and they will be sure to make a good record. The opening paper appears in this number of THE CANADIAN ENGINEER.

THE industrial world has become so accustomed to associating marvels with the name of Edison, that the announcement made in the New York *Herald* recently that the long-looked-for electrical process for iron ore extraction was complete is hailed with interest and pleasure only, not surprise. If the statements made in the *Herald* are exact, a most remarkable change is about to come over the iron industry; its location will be transferred to the neighborhood of water-powers, and the finished product will be enormously cheapened. The most marked characteristic of the new process is its labor-saving devices, as it is purely automatic, and from the time the car load of ore is dumped into the hopper till the bricks of pure iron emerge from the last machine in the series, no hand touches it. The ore is carried from one set of crushers to another by means of endless belts and bucket elevators, till the material is reduced to the requisite fineness, and then another series of belts and elevators carry it to the separating house, where the material falls in a fine stream across a field of large electro-magnets, which divert the iron from the direct line of fall and drop it into one receptacle, while the refuse and rock fall into another. This process is repeated a number of times, till at last the resultant product is pure magnetic oxide of iron. Carriers take the iron ore thence to the bricking plant, where the ore is mixed with binding material and pressed into small bricks for convenience in handling. These are then baked and are ready for the market.

CALCIUM CARBIDE AND ACETYLENE GAS.

Editor CANADIAN ENGINEER.

SIR,—Pray pardon me for writing you and taking up your time, but I am much interested in calcic carbide and acetylene gas, which I think is the illuminant of the future, and from the article in your January number I have got considerably mixed as to the cost. On page 239 I find as follows:

1,200 lbs. coal dust, say	$2 50
2,000 lbs. burnt lime	4 00
180 e.h.p. from water	6 00
Labor, etc.	2 50
Cost of 2,000 lbs., say	$15 00

From these figures am I to infer that there is a waste of 1,200 pounds in production of one ton of calcic carbide? Then you say, add $15 for freight. This would make $30 per ton, landed, say, here. Now, one ton will make, say, at 5 cubic feet gas per pound, 10,000 cubic feet of gas, and this 10,000 feet would cost $30, thus placing the cost of 1,000 feet at $3; yet you say it can be placed at 30 cents per 1,000.

Would you kindly reply and make this clear to me, and very much oblige,

Yours very sincerely,

J. H. SHEPPARD,
Incumbent St. Matthias, Coldwater.

January 27th, 1896.

The explanation of the apparent discrepancy noted by our correspondent is in the fact that the illuminating power of a cubic foot of acetylene gas is calculated at ten times that of common gas. We may say, however, that there is a very wide divergence in the estimates of the cost of calcium. An anonymous writer in the *Engineering and Mining Journal* is making violent attacks on the Electro Gas Co, accusing them of stock jobbing, and asserting, moreover, that calcium carbide, when produced by other than water-power, will cost from $60 to $80, perhaps $100 per ton. He quotes an article from the *Am. Gas Light Journal* which puts the cost at $160 per ton, and states that in the process of making it in the electric furnace, there is a great waste of electrical energy, owing to the small conductivity of lime and carbon, and the frequent short circuiting caused by having to place the carbon electrodes so close. The actual cost of producing the carbide and the gas will soon be determined at the large works now being erected at Niagara Falls, and in the meantime, we should advise those interested to await the results without prejudice, and not to come to any conclusion based on the statements of anonymous correspondents.

FIRES OF THE MONTH.

Jan. 15th.—Steam sawmill, Canterbury, N.B., James Smith & Sons Loss, $4,000; no insurance.——Jan. 19th.—Sawmill, Hartland, N B., Samuel E. Campbell. Loss about $13,000; insurance, $4,700.——Jan. 21st.—Alexandria Mfg. Co., Alexandria, Ont. Spontaneous combustion. Loss about $20,000; insurance about $12,000.——Jan. 23rd.—The C P.R. station, Parkdale, Toronto. Electric wire crossing caused fire. Building partially gutted, and books, etc, of company destroyed.——Jan. 27th.—Hosiery mills, P. T Lemoine, Pembroke, Ont. Stock room partially destroyed. Loss, $1,000; some insurance.——Jan. 30th.—Planing mill, Toronto, J. Carlyle. Loss about $25,000. —Feb. 3rd.—Island City White Lead and Varnish Works, Montreal. Loss $50,000. The stock, valued at $75,000, was partially insured.