

and collects in the bottom of the liquefying chamber. Now all is in working order, air is liquefying and collecting, and in a short time liquid air can be drawn off by the gallon just like water. Three or four gallons of liquid air are produced in an hour in the usual operation of the plant."

The chief interest is not in Mr. Tripler's experiments, however, but in the economy or lack of it which characterizes his production of liquid air. He seems to claim to be able to operate his apparatus with a portion of the liquid air which he produces. This is not perpetual motion, but its amplification would be unlimited power at infinitely small expense. We await with interest a complete demonstration of Mr. Tripler's methods. In the meantime it would seem that a mysterious motor is about to occupy that position in the public regard which was so long and successfully filled by the famous Feeley motor.

#### LAKE NAVIGATION IN CANADA.

The first move in the direction of constructing ships suited to the changed conditions of lake navigation in Canada caused by the enlarging of the St. Lawrence canals, has been taken by the organization of the Canadian Inland Transportation Company, whose application for incorporation is now before the Dominion Government. Among the promoters of this company are Geo. H. Bertram, president of the Bertram Engine Works, Ltd.; J. K. Osborne, vice-president of the Massey-Harris Company, Ltd.; Senator Forge, president of the Richelieu and Ontario Navigation Company. The proposed capital is \$4,000,000, and the company will carry grain. For this purpose it is proposed to build ten steam barges, each of which will be capable of carrying 75,000 to 80,000 bushels of wheat, as well as to erect adequate terminal facilities in the shape of elevators, etc., at Port Colborne, Montreal, and Quebec. Pending arrangements for the completion of the organization, one steel barge of 78,000 bushels capacity will be built; in fact the work of construction has already begun at the shipyard of the Bertram Engine Works Company, Ltd.

#### BORROWED PLUMES.

There is something lacking in our municipal system. The aldermen are allowed too complete control of the professional heads of departments during their tenancy of office and they have too great latitude in dismissing and appointing. The recent amazing performance of the city council of Victoria, B.C., which appointed a Toronto carpenter to the most important office in its gift, that of city engineer, is a complete demonstration of the folly of present methods. The aldermen of Victoria dismissed the former engineer, A. E. Wilmott, a member of the council of the Canadian Society of Civil Engineers, without a moment's warning. Such a dismissal by such an aggregation is a testimonial to Mr. Wilmott's ability and integrity which is the more complete when viewed in the light of the fact that out of twenty five applicants for his position the first choice of the council was a carpenter, whose friends insist that mental disturbance is the cause of his actions, not a deliberate desire to defraud. Be that as it may, W. B. Ferguson obtained the appointment through copies of testimonials whose originals have never so far as we are aware been seen by mortal eye. As will be seen from his most extraordinary letters to this journal which we publish herewith, he claims to be a graduate of the Royal Military College, Kingston. There is no such name, however, on the books of that institution, nor could

anyone be persuaded that the writer of these letters had graduated even from the public school.

The day before his departure for Victoria, Mr. Ferguson called on the editor of THE CANADIAN ENGINEER, and stated that he had been appointed city engineer of Victoria, B.C. His statements were so various that they roused more than usual interest. He had been appointed sole arbitrator in the Point Ellice bridge claims; he was going to spend \$300,000 on harbor improvements in Queen Charlotte Islands; he had spent the last five years in travelling in the United States and South America examining engineering works.

Of course when the new city engineer arrived at Victoria and failed to produce the originals of his testimonials, even the Victoria aldermen thought there was something wrong. Had he been possessed of some papers to show those sagacious judges he would have been loosed upon the city to work his own sweet will upon the public works so far as the aldermen would permit it. Just how far that would be may be seen when the clause in his letter is considered in which he states that he has not been twenty-four hours in the city and, every alderman has explained the situation to him.

One very peculiar feature of the affair is that Mayor Shaw, of Toronto, wrote a letter introducing Mr. Ferguson to Mayor Redfern. Now, Mayor Shaw has a right to introduce anyone to anyone else if he sees fit and even if he himself knows neither of the parties implicated in the ceremony, but he should be more careful in the language employed in these valued communications. In his favor to Mr. Ferguson Mayor Shaw stated that he "understood Mr. Ferguson was recommended" by a certain engineer. Now, Mr. Shaw understood nothing of the sort. Mr. Ferguson stated that such was the case and Mayor Shaw had no other reason for any understanding in the matter than that. What a basis that was for any statement we believe we have already shown. It should be stated that Mr. Ferguson had some years ago been employed as a foreman on street paving work in Toronto, and also that he unblushingly assured the editor of this paper that he had been the engineer-in-charge of the conversion of the Toronto Railway from horse-cars to an electric trolley system. We append the letters referred to:—

Victoria, B.C., Mar. 30, 1899.

Office Canadian Engineer Toronto

Messrs Sir

I promised to write to you when I arrived here—well I got here last night very tired—for I was one week on the road—but as comfortable as can be under the circumstances—I visited His Worship, the Mayor of Victoria—Chas. E. Redfern, Esq.—a very pleasant nice person—he took me—through the Hall and introduced me to the City Officials—and also explained to me an outline of proposed works in contemplation there will be a great amount of work here in street paving and reconstruction there has been very little of that line done here then the drainage is inadequate and will be entirely remodelled as well as the present Water Supply. I have not had any chance to examine into the present existing system myself for I am not 24 hours here as yet—but as you know every one of the City Aldermen has their story to tell—about what it is and the remedy—well I have got to listen to all and say nothing until I examine everything myself I will have a very busy time of it this season—but will find time to write you a few lines now and again how things are going here and how it is done. There is one thing here which will need a thorough reform and that is the present method of collecting and disposal of the city Garbish the method here now in use is for every person to get it away the best he can—And it looks rather Ancient to see a number of Chinaman with long sweep over their shoulders and two large baskets one at each end of the sweep or pole filled with the Garbage of the city carrying it on their shoulders away to the dump—and no person to look after or direct the disposal of them—or direct the affairs of that department. In some of the yards of the Chinese Portion of the City the accumulation of Garbage are considerable—the Water here is not the Best. Victoria is a very Beautiful City Easily drained some very