

McEvoy, of Brooklyn. Apart from the large extent of pulp timber and other timber in Labrador, that region, almost unknown to Canadian commercial men, is rich in certain classes of minerals, and has extensive water powers by which such resources can be developed. In sight of the activity and enterprise of United States explorers in this region, it is lamentable to note the supineness of our own Government and people in these matters. While millions are being voted for political railways, canals and other public works, the Government has kept Capt. Bernier dangling for the past two years on a half promise of a few thousands for his Canadian expedition to the polar regions, while this confiding and self-sacrificing navigator has spent \$25,000 of his own money in enlisting the sympathies of Government and public men, and in preparing his plans. And still Capt. Bernier is kept navigating the air instead of his native element. If polar bears and Arctic whales had votes Capt. Bernier would not have to wait long for a subvention to equip his expedition; but as all he can show is that there are indications of coal seams for over a thousand miles of the regions he proposes to explore he will have to wait till some enterprising United States prospectors locate and develop these coal regions. Then perhaps he may regret that he banked on Canadian patriotism when he refused the offer recently made him by a New York capitalist who proposed to furnish the Captain with a complete outfit, ship and all, if he would sail under the flag of the United States. These things make us wonder whether our public men lack most in imagination or foresight in comparison with our neighbors; but whatever the defect we must confess that our friends across the border are keen and courageous crusaders in the commercial and manufacturing world, and in no sphere of operations have they shown greater enterprise than in exploiting and developing the pulp and paper industry and in the acquisition of choice timber limits in Canada."

—Our correspondent, Mr. Frood, has made a number of good suggestions from time to time in the Engineer, some of them ahead of the times, all of them up to the times. That made in this issue is well worthy the immediate attention of our provincial and country Governments. The plan of carrying guns and freight by traction engines across roadless country was actually carried out with success in the South African war, and there is no reason why the same machinery should not be applied to the arts of peace. It would immensely reduce the difficulties and hardships of pioneering in northern and western Canada.

—A plan carried out in several cities in the United States for supplying power to office buildings is a sort of co-operative one by which a large power plant is erected in a central business locality, and supplies electrically the motive power needed by the various office buildings and company buildings in the vicinity. There is no reason why this idea should not be adopted in large Canadian cities, and extended so as to distribute heating and ventilating in winter as well as power and light throughout the year. The heat could be conveyed under ground in insulated pipes, and the power cables in the same conduit. A considerable saving

could be effected by proper management over the present system of separate heating and power systems for large buildings, some of which are anything but economical.

—The purification of water by sand filtration may soon give place to the new process of ozonizing water which has been practically tested in Germany. Before the recent International Chemical Congress at Berlin, Professor Proskauer, of Berlin, read a paper on the sterilization of drinking water with ozone and ozone waterworks, the German electricians having succeeded in producing at small cost a concentrated solution of ozone. The speaker, with Professor Ohlmueller and Professor Prall, of the Imperial Health Office, made exhaustive experiments with the solution in purifying water. The experiments included tests with water artificially impregnated with the deadliest disease germs, like typhus, cholera and dysentery. Such water was pumped through the so-called ozoning tower and then rigidly analyzed. All the germs were found to be killed, whereas the ordinary method of sand filters left the germs living. Moreover, the water was greatly improved in quality through the increase of oxygen from the ozone. Professor Proskauer said the ozoning plant was cheaper than the sand filtering system usually used in city waterworks, hence the time had come for the general introduction of ozone plants. The town of Wiesbaden, added the Professor, already has one of these plants which sterilizes 250 cubic feet of water hourly.

—The steam turbine appears to be steadily coming to the fore both as a land and marine engine. In the last few months we have mentioned several large installations in the United States, where the turbine has been applied to electrical plants, and as a motive power in shops, with apparently economical results. In Great Britain two steamers propelled by the Parsons turbine have been in regular service on the Clyde, one for about 2 years and the other for over a year; but a more comprehensive test of this means of propulsion is now being made by a steamer launched last month for service to cross the Channel, between Dover and Calais. This steamer, called the "Queen," was designed for a speed of 21 knots, and her trips so far have more than realized this speed. In the "Queen" there are three shafts, each having a single propeller, instead of, as in the first types, having a double propeller on the side shafts. The single propeller arrangement gives less vibration. The centre shaft is driven by the high pressure turbine, and the two outer ones by the low pressure; the steam having an initial pressure of 150 lbs., and expanding five-fold in the high pressure engine, and in the low pressure engines—where the mean pressure is 12 lbs.—about twenty-five fold. The centre shaft runs at 500 revolutions per minute, and the side shafts at about 550. For driving the ship astern a stern turbine is fitted on each of the side shafts, within a casing aft of the turbine used for driving ahead; and the steam can be turned on one and off the other at will, so that the ship can be stopped in about twice her own length, or when measured by time, 1 minute 7 seconds. This ship is 310 feet long and has three decks. The trial trips of this, the first