

T. J. DRUMMOND, of the Drummond & McCall Pipe Foundry Company, Montreal and Lachine, was confined to his house last month for some days, owing to sickness. We are glad to hear he is now convalescent.

ERNEST MARCEAU, C.E., the recently appointed superintending engineer of canals for the Province of Quebec, was born in 1853, and after he had undergone a complete course of study at the Polytechnic School, Montreal, graduated from there with the highest honors in 1877. He was then appointed assistant engineer on the Grenville Canal, and from 1879 to 1889 was assistant superintending engineer on the Ottawa canals. After acting as superintending engineer *pro tem.* on the canals of Quebec Province since May, 1893, he has been honored by the formal appointment as stated.

GREAT THINGS FOR 1895.

The year 1894 has seen some remarkable developments in the electrical and mechanical sciences, but the present year is likely to witness the inception and development of inventions more important in their bearing on the welfare of mankind, and more revolutionary as regards the industrial sciences than perhaps any year of the century. Not to speak of what is being done in other countries, two inventions now being perfected by two Canadians are designed to make the year an epoch in manufacturing and the industrial arts. One of these is a new system of air compression by which the power of falling water may be converted into mechanical power by compound air, a fall as small as two or three feet being available for this purpose. The other is a rotary engine, the efficiency of which may be imagined when it is stated that a tiny engine which was sent as an express parcel developed 25-horse power, with 3,000 revolutions per minute, and that a larger one now being completed, and which can be put into a box six or eight feet long, is calculated to develop 250-horse power. Neither of these are Keely motor mysteries, but engines of a simple character, which have surprised those who have viewed them. At present these inventions—or discoveries, as we may call them—are not public property, but THE CANADIAN ENGINEER hopes to give the world some account of them as soon as the time is ripe.

These are inventions that have come under our own observation at home and abroad. Maxim and others appear to be in a fair way to achieve the long-looked-for attainment—aerial navigation—before the close of the year; a problem which, by the way, could be readily solved by the possession of an engine so light and so powerful as the new rotary engine alluded to.

Again, we have the reported discovery of Nikola Tesla, of a means of combining a steam engine and electric motor in one machine, which will save the loss of energy inseparable from the present form of both the steam engine and motor. And all the while the evolution of electricity in its new applications to the various sciences and arts goes on without interruption, even on the existing lines and methods of generation. What could it not do with these new principles applied? Again, the gas engine is being rapidly improved, and along with this improved efficiency, we have the confident assertion of the inventors of the Coniseco system of producing gas that this gas can be manufactured almost anywhere on this continent at 20 cents per thousand, which would mean a marvelous cheapening both of motive and illuminating power. In view of all this development we can only watch and wonder at the enormous forces of nature now being and to be harnessed for the use of humanity; and when such forces are fully applied we shall think that hitherto the world has slept.

RECENT GERMAN PATENTS.

Compiled at the Patent and Technical Office of Brockhues & Co., Cologne. Information on all questions referring to this list is given gratis to subscribers of THE CANADIAN ENGINEER.

August Hickel, Barmen, elliptical compasses.

Dr. H. C. Merrill, Cologne, apparatus for indicating torpedoes that have run aground.

H. Feith and A. Floeck, Elektrik, Galvano-plastic Institute, Cologne, material for pouring behind galvanic deposits.

Gottfr. Liessem and Peter Lauffenberg, Cologne, apparatus for measuring fluids.

Z. Schroeder, Hildorf, sediment and fining-vat for wort as substitute for the cooler.

W. Buttner, Gummersbach, furnace.

A. Bruckner, Aix-la-Chapelle, hollow tablets of gypsum and frame for making them.

A. von der Vahmer, Alexanderwerk, Remscheid, copying-press.

The Patent Review.

- 45,722 Edward Thunderbolt, Carlton, Victoria, Australia, governor for machinery.
- 45,723 Philibert Gauthier, St. George, Que., water elevator.
- 45,724 John C. Grant Peterborough, Ont., curd cutting machine.
- 45,725 Albert Penhollow Jones, Toronto, Ont., wooden bicycle rim.
- 45,728 John Horace O'Brien, East street, Kilda, Victoria, Australia, nut lock.
- 45,729 Gustave A. Drolet, Montreal, electric fire alarm system.
- 45,731 Theron Rudd Gue, Halifax, N.S., explosive.
- 45,734 Wm. Luther Teter, Philadelphia, Penn., furnace.
- 45,735 Wm. Pinkerton, Toronto, process of making building composition.
- 45,736 Clarence Leroy Wheeler, Marion, Indiana, rail joint.
- 45,737 Joseph Lachace, St. Francois de la Beauce, Que., nut locks.
- 45,744 James Wright, Jackson, Tennessee, belt tightener.
- 45,747 George T. Orton, Winnipeg, Manitoba, ventilator.
- 45,749 Matthew Belk, Palmerston, Wellington, New Zealand, apparatus for preventing locomotives from leaving the rails.
- 45,750 Edward Wilson, Exeter, England, hot water heater.
- 45,755 Albert Franklin, Kingsley, Washington, boiler furnace.
- 45,759 James Lund, Ardwich, Manchester, England, oiler.
- 45,760 Hubert T. Chailfoux, St. Hyacinthe, Que., horse power or capstan, etc.
- 45,762 George Wellington Butler, Oxford, Ont., oil cup for carriage axles.
- 45,763 Willard F. Richards, Buffalo, N. Y., car coupler.
- 45,764 Wm. S. Wilson, Brantford, Ont., process of manufacturing rivet studs, etc.
- 45,767 John Horner, Dubois, Penn., nut lock.
- 45,770 Robert A. Danning, Bath, Maine, weighing scales.
- 45,772 George L. Klein, Toronto, stem winding watch.
- 45,781 Gasper S. Grosch, Milverton, Ont., over-stocking.
- 45,782 Wm. Silver, Oliver, Halifax, N. S., army accoutrement.
- 45,783 Louis Gauthier, St. Pie, Que., sap evaporator.
- 45,784 Franklin Streater Randall, Philadelphia, Penn., electric wire covering.
- 45,789 Wilford A. Shaham, New Whatcomb, Washington, dredging and gold saving machine.
- 45,790 Vincent Davis, Auburn, N. Y., rotary engine.
- 45,791 H. C. Hogarth, Tilsonburg, Ont., road cart.
- 45,793 Parker Pillsburg Hogue, Cincinnati, Ohio, injector.
- 45,802 Joseph Greenfield, Hamilton, Ont., ventilator for stove pipes.
- 45,804 David Cameron Ferguson, Ottawa, Ont., electric burglar alarm.
- 45,805 Thomas W. Van Tuyl, Petrolia, Ont., gear chain wheel.
- 45,806 Margaret Killeen, Halifax, N.S., fire escape.
- 45,807 Richard Turner Gilliam, Chicago, Ill., railway switch.
- 45,808 Eugene Beaubien, Montreal, washing machine.
- 45,809 John G. Dundalk, Owen Sound, Ont., fire extinguisher.
- 45,812 Wallace Thurmann, Chicago, Ill., sprinkler head for fire extinguisher.
- 45,816 John White, London, Ont., bolt heading machine.
- 45,821 Wm. H. Starr, Liberty, Nebraska, motor.
- 45,822 Edward B. Hyre, Elk Fork, West Virginia, wrench.
- 45,825 Wm. Timmis, Pittsburg, Penn., tank for the storage of compressed air.
- 45,825 Levi Hildreth Young, St. John, N.B., nut-lock.
- 45,832 Lyman Jones, Toronto, stirrer for mixed paint.
- 45,836 Francis J. Bell, Kingston, Surrey, England, ore separator.
- 45,839 Walter G. Davis, Portland, Maine, lobster trap.
- 45,840 John Henry Rings, Lowell, Mass., police patrol system.
- 45,841 Joseph Bingeman, Berlin, Ont., brush.
- 45,842 Harold R. Hayden, Chicago, Ill., car coupler.
- 45,843 Henry Vachon, Golden, British Columbia, car coupler.
- 45,847 Alexander Turnbull, Bishopbriggs, Lanark, Scotland, valve.
- 45,848 Oscar Friedrich, Dinsberger Eisensund, Prussia, Germany, method of manufacturing seamless metal tubes, etc.
- 45,850 Wm. C. Trethewey, Mission, B.C., can labelling machines.
- 45,851 Job Dubley, Toronto, ticket punch.
- 45,853 James E. Weyman, Guildford, Surrey, England, explosion engine.
- 45,872 Thos. H. Stackhouse, Philadelphia, Penn., stencil printing machine.