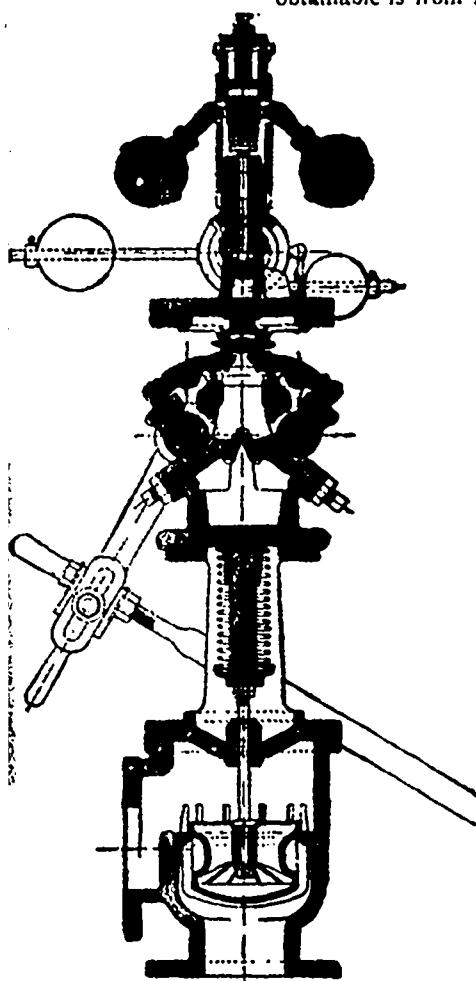
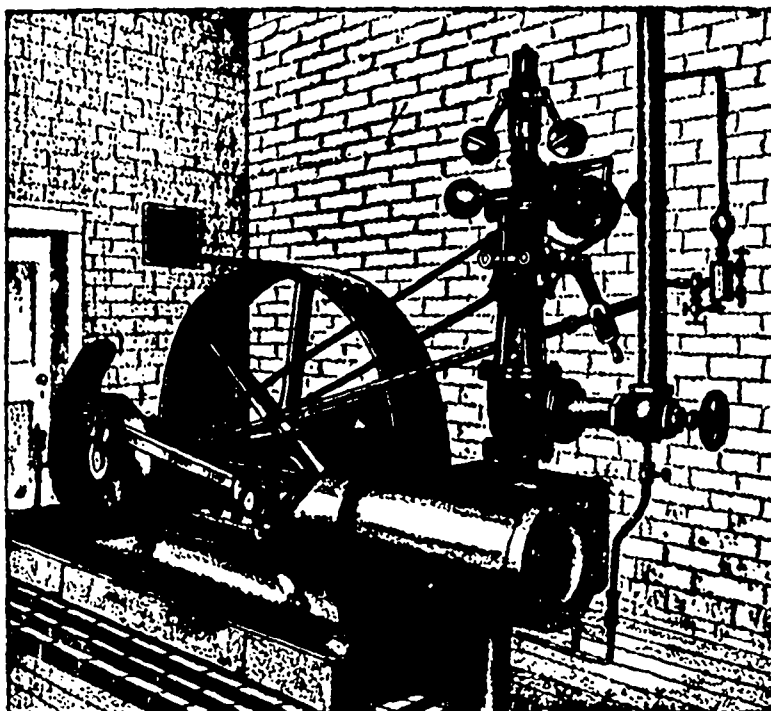


THE NORDBERG AUTOMATIC GOVERNOR.

THE accompanying illustrations are of the Nordberg Automatic Cut-off Gear and Regulator.

It is a combined trip and cut-off gear, designed to be attached to the steam inlet nozzle of slide valve, rocking valve and similar engines to regulate the speed. The steam is admitted at full boiler pressure, and cut off at a point corresponding to the demand for power, and expanded. The resulting terminal pressure is very much lower than if a throttling governor were used, consequently, with this governor, less steam will be used than with the throttling governor, as the terminal pressure is the measure of the steam consumed. This governor consists of a double beat poppet valve operated by a double trip mechanism. A sensitive regulator sets the point of cut-off according to the demand for steam. The range of cut-off obtainable is from zero to three-fourths or seven-eighths of stroke. An air dash pot causes the valve to drop gently onto the valve seat. All contact edges about the trip gear are made of removable hardened plates of best steel. These plates are reversible, and all of the eight edges can be used as contact edges. The cut-off gear is operated by an independent eccentric, and the regulator is driven by a belt. All these machines are provided with a patent safety stop which will stop the engine in case of accident to the governor or belt, or if the regulator should stick. It will maintain a uniform tension on the governor belt, and it will in no way interfere with the starting of the engine. It can be run at a speed of 200 revolutions per minute.

The Nordberg Automatic Governor is manufactured in Canada by Messrs. Darling Brothers, at their



Messrs. Darling Brothers have fitted up a special plant for manufacturing this governor, and are prepared to meet all demands for it. They invite correspondence.

Reliance Works, Montreal, and they inform us that they are enjoying a large and growing demand for it. They show letters from a number of manufacturers and others who are using it, the testimony of some of them being as follows:—
Jas. Robertson, Montreal, "I have found a saving in fuel of at least 25 per cent, and an additional amount of power, with much better regulation in speed." H. R. Ives & Co., Montreal, "We are not only saving 15 per cent. in fuel, but gaining 20 per cent. in power." Montreal Rolling Mills Co., Montreal, "In regard to fuel, using the same coal, the first week we saved nearly 25 per cent." Moses Parker, iron founder, Montreal, "The saving of fuel is about 15 per cent." Wm. Buck, Brantford, Ont., "We consumed with the old governor 2,700 lbs. of coal for 10 hours run—with the Nordberg Governor 1,900 lbs., and our regulation is perfect."

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The B. Greening Wire Company, Hamilton, Ont., have sent us a copy of a brochure recently published by them entitled, "Wire: its Manufacture, Antiquity and Relation to Modern Uses." It traces back the manufacture and use of wire to the time when gold wire decorated the sacerdotal robes of Aaron 1,700 years before Christ; and it alludes to a specimen of wire made in Nineveh 800 years B.C. About the year 1600 it is recorded that at Tintern Abbey, on the Wye, pins and needles were manufactured by a Mr. Greening, who, it may be supposed was an ancestor of the people to whom we are now indebted for this little book. At any rate, about the year 1799 Nathaniel Greening, of Tintern Abbey, commenced the manufacture of wire at Warrington. It was with this concern that the late B. Greening served an apprenticeship to the business, and in 1858 removed to Canada and became the founder of the business now conducted by the B. Greening Wire Company. The book is exceedingly interesting, and contains a wealth of information which it would be difficult to obtain from any other source. We presume it will be sent to any who may apply for it.

The Legal and Commercial Exchange of Canada, whose headquarters are at Toronto, with branches in many other parts of the Dominion, have sent us a copy of their 1893 Reference Book which gives most important information regarding the commercial standing of we suppose about every person, company and co-partnership doing business in Canada. This edition does not differ from previous ones in so far as the superior style of rating is concerned, telegraph code and other advantages specially adapted for all business men, whether financiers, manufacturers or merchants, but the new revision of the whole Dominion evinces extreme carefulness. Some new and important features indicate the trend of trade in Canada. The first portion quotes Ontario, Manitoba, North-West Territories and British Columbia, while the second quotes Quebec and the Maritime Provinces. This arrangement has been made so as to allow of two volumes being issued to suit firms both in the east and west. There has been a desire for some time past to have a dividing line in some classes of goods, and this division of the Reference Book anticipates as usual the requirements of the time. The book is of a size convenient for office or pocket, the type is of clear agate, and the binding is of the most tasteful description. There are many most valuable features of the book which are not observed in other similar publications, the desirableness of which will be readily observed on examination.