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CONTENTS OF THIS NUMBER :

	PAGE
Boiler Explosions	141
" (Correspondence)	141
Bollers, Facts About	149
Canadian Association Stationary Engineers (Convention)...	153
Canadian Electrical Association	163
Coast Railway of N.S.	161
Electric Flashes	166
Electrical Statistics	147
Facts About Bollers	149
Horseless Vehicle Test	145
Horseless Carriages (Correspondence)	163
Huron County Electric Railway	146
Kerosene Yachts	145
Lightning, Photo. of	145
Mining News	152
Montreal, Ottawa and Georgian Bay Canal	137
Personal	148
Powell, C. Berkeley	148
Telegraph in Canada	139

For THE CANADIAN ENGINEER.

THE MONTREAL, OTTAWA AND GEORGIAN BAY CANAL.

BY ARTHUR J. FORWARD, OTTAWA.*
(Concluded from last issue.)

COMPARISON WITH OTHER ROUTES.

The commercial results to be derived from the opening for traffic of a great waterway by the Ottawa to the lakes could not be otherwise than satisfactory. To quote Mr. Shanly once more :—" To those who have made the laws that govern western traffic their study, I leave it, to estimate the height to which Canada would be elevated in commercial importance by opening through the heart of her Dominion a continuous navigation, shortening by fully one hundred and fifty miles, the shortest water communication that now does or ever can exist besides between tide-water, whether on the Gulf of St. Lawrence or the estuary of the Hudson, and the broadest extent of grain growing country in the world." Late years have brought about a most noteworthy shifting of trade centres on the lakes, the change being one altogether in favor of the Ottawa route. In the first half of the century, the commercial transactions of the country bordering on Lakes Erie and Ontario were everything. There was no West. Later on came the unparalleled growth of Chicago, and the development of the country about Lake Michigan. Now, Lake Superior bids fair to far surpass them all in the magnitude of her traffic, while Lake Erie ports derive the major share of their present importance from being receivers of the grain, ores and timber of Lakes Huron, Michigan and Superior, except

in one or two instances where they are large shippers of coal. For various reasons the growth of the Canadian North-West has been slower than was hoped for. But Manitoba has this year a wheat crop estimated at 25,000,000 bushels, which will tax every existing means of carriage to the utmost to provide transportation for it. And nothing is more certain than that the centre of the grain-shipping area will move steadily northward year by year. This has plainly an important bearing on the future of the Ottawa route, because it affords the most direct line possible from Lakes Huron, Michigan and Superior to tide-water. The general course from the mouth of French River to Montreal varies but little from a direct line, the route lying almost along the 46th parallel of latitude from a point near the entrances to Lakes Michigan and Superior eastward to Montreal, a distance of nearly 600 miles. A gentleman well acquainted with the Ottawa writes as follows :—" The route from Lake Superior to Montreal by way of the Ottawa River is *more nearly an air line than any other stretch of inland navigation which can be found in all the world*, and presents besides, physical conditions which will enable it to be improved for the passage of the largest vessels for a less cost than any other which can be found."

The saving in distance due to this feature is very great.

Chicago to New York via the Erie route....	1,415 miles.
" " Montreal " " St. Lawrence..	1,348 "
" " " " " Ottawa.....	980 "

From Lake Superior ports the showing is even more favorable to the Ottawa, owing to the more direct course through the north channel of Lake Huron to the mouth of French River. Montreal being 280 miles nearer Liverpool than New York is, the total distances from Chicago to Liverpool will compare as follows :—

Via the Erie route	4,495 miles.
" " St. Lawrence	4,148 "
" " Ottawa	3,780 "

The actual advantage in distance is greatly increased also by the comparatively small amount of canalizing to be done on the Ottawa. Thus taking Mr. Clark's plan, as altered to meet existing conditions, there would be 33½ miles, as against 71 on the St. Lawrence, and 351 on the Erie route, or 220 via the Welland canal and Oswego. The net result will be a saving of from 30 to 40 hours on the trip as compared with the St. Lawrence, and not less than 90 to 100 compared with the Erie. Nor will this be materially decreased by the additional lockage required, three to four hours being a sufficient allowance for the amount above that on the St. Lawrence, and about one hour for that in excess of the Erie. Not only will this saving of time render possible a larger number of trips, and thus the carrying on of a larger traffic in proportion to capital invested, but the absolute safety of the route will reduce insurance rates to a minimum. All the way from the Sault to Montreal, with the exception of a few miles on Georgian Bay, is practically a land-locked channel which the flimsiest of river steamers may navigate in safety.

All these elements combined make the Ottawa the

*By an error the first instalment of this article in last issue was credited to another writer.