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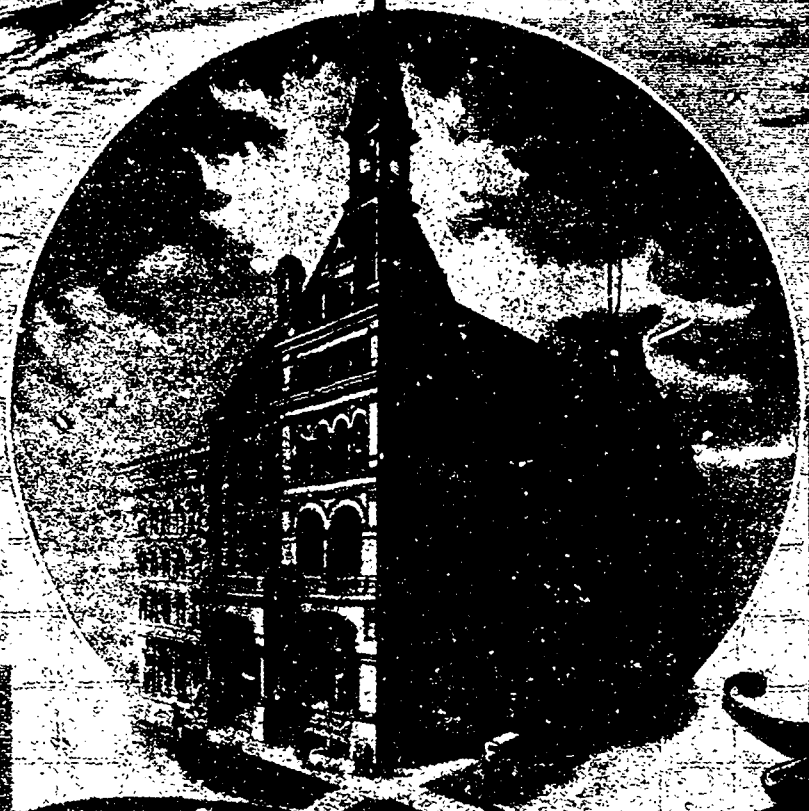
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RAILWAY LIFE

A MONTHLY JOURNAL
CANADIAN

DEVOTED TO
RAILWAY INTERESTS

Vol. II.]

TORONTO, ONT., MARCH, 1887.

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TWO LINES TO THE SAULT.

WE take advantage of an unexpected delay in the closing of the forms to note the passage of the Ontario & Sault Ste. Marie Railway Company's Amendment Bill in the Railway Committee of the Ontario Legislature, under an agreement with the Canadian Pacific. The decision of Vice-Councillor Ferguson in the preliminary case brought against the Canadian Pacific was in favor of the Ontario & Sault Ste. Marie Company. A conference of leading representatives of the latter company, and Mr. Van Horne, on the part of the Canadian Pacific, resulted in an agreement, under which the advantages of the line, located by the Ontario & Sault Ste. Marie, will be open in part to the Canadian Pacific. Where difficulty arises in securing full width of way for two lines, owing to the natural obstructions, Mr. Walter Shanly, C. E., or an

engineer appointed by him, if he cannot act, shall be called upon to arrange for room for the two lines, with power to divide the cost of work thus rendered necessary, as seems fair to him. In reply to a question by a member of the committee, Mr. Bell stated that the work on the Grand Trunk extension had been begun under this Ontario & Sault Ste. Marie charter, and that it would be pressed forward as soon as arrangements could be made to that end. There was no need to push the work to the Sault before American lines were ready to connect, but the Grand Trunk was desirous of reaching the Sault, and the work would not be unnecessarily delayed.

THE *Parthia*, the *Bataria* and the *Abyssinia*, of the Cunard Line, will hold the route between the Canadian Pacific, western terminus, and China and Japan until new steamers are built. The vessels will run monthly for the present.

THE submarine tunnel between New Brunswick and Prince Edward Island not having materialized yet, communication is still kept up by boats. This winter the communication has been maintained with great regularity, the boats making trips daily with the exception of two days which were too stormy to justify the crews in starting out with the boats.

A SAMPLE "wave breaker" for spreading oil on the ocean has recently been sent to the Hydrographic Office from Copenhagen. It consists of a conical shaped canvas bag fitted with a metal top and metal apex in which there is a small sieve. Oakum is loosely stuffed into the lower part of the bag, and the oil soaking through drops out of the sieve. The English channel fleet was recently provided with a number of these bags while at Copenhagen, and they have been introduced into the Italian navy.

"I've heard all the stories of long telegraphic circuits," said a postal telegraph operator at Buffalo, "and in my time I've worked some pretty long ones myself, but I've never heard of anything that equalled one that we had this afternoon. Our people are building a line from the terminus of the Canadian Pacific to Frisco, and I heard Vice-President Henry Rosener talking with President Chandler in his office in New York city. Mr. Rosener was in New Westminster, which is on the Pacific coast, just opposite Vancouver Island, so they were talking across the continent. By that route it is about 3,000 miles, for the wire was made up via Buffalo, Toronto and the Canadian Pacific. Every few minutes I could hear Medicine Hat chip in, and all along the circuit the operators were 'on.' It was a wonder to everybody, and the instruments were working as clear as a bell on that long copper wire."

THE following despatch from New York appeared in the daily papers of 14th inst:—An immense iron combination is being formed here which aims at nothing short of owning and controlling all the known valuable iron deposits of Canada, now being ascertained to be the richest iron country in the world. The Central Ontario Railway, which runs from Trenton, on Lake Ontario, through the central part of Canada and all the iron interests connected with it are to form part of this scheme. The road is to be extended 150 miles through the heart of the iron district to a junction with the Canadian Pacific Railway at Lake Nipissing. The capital of the company is to be ten millions, more than two-thirds of which are already pledged. The syndicate, it is said, will own more than a hundred different properties at various points in Canada, and a mineral development even greater than that on Lake Superior is predicted. Among the principal movers in the matter are Senator Payne, Stephenson Burke, S. J. Ritchie, all of Ohio; James McLaren, of Ottawa; Erastus Wiman, A. B. Boardman, and other prominent parties in New York.

Personal.

MR. J. W. HECKMAN has been appointed Resident Engineer of the road which is now being built across the Island of Cape Breton.

MR. S. BARKER, general manager of the Northern & North-Western Railways, who has been ill for some time, is improving.

W. T. REED, for the past four years master mechanic of the Western Division, C.P.R., has resigned and accepted a similar position on the St. Paul, Minneapolis & Manitoba Road.

SIR JOHN LISTER KAY before leaving for England had completed arrangements with the Government and the Canadian Pacific regarding his schemes for model farms of Manitoba and North-West.

MR. S. OAKLEY, foreman of car shops of C. P. R. at Winnipeg, has resigned and accepted the position of foreman of car shops at St. Paul, on the St. Paul, Minneapolis & Manitoba, under Mr. W. T. Reed, master mechanic.

GENERAL SUPERINTENDENT EGAN, of the Manitoba R. R., announces by circular that W. T. Reed, formerly with the Canadian Pacific, has been appointed master mechanic of the Manitoba, vice Thomas Downing, resigned. He will have general charge and supervision of the mechanical department, with headquarters at St. Paul.

MR. BALFOUR, of Vancouver, has been appointed bridge inspector of the Mountain Division of the C. P. R., between Donald and Revelstoke. It is believed he will make a very efficient inspector, as he had a vast amount of experience on bridgework during the construction of the C. P. R.

MR. ALAN MACDOUGALL, C. E., one of the council of the new Canadian Institute of Civil Engineers, has been appointed assistant city engineer of Toronto. The best man has been chosen for the place, which is not always the case in civic appointments. Mr. Macdougall's special knowledge of sanitary engineering will be of great benefit to the city.

MR. A. F. WEBSTER, of Toronto, has been appointed general agent of the State Steamship Company, for Canada, with full power to appoint sub-agents and transact the passenger business for the line in the Dominion. Mr. Webster is a successful and enterprising agent, representing a number of important railway and steamship companies, and the appointment is one on which the company, as well as the appointee, is to be congratulated.

IN electing Hon. J. J. C. Abbott to the mayoralty the citizens of Montreal have conferred fitting honor upon one of the most distinguished of their number. Mr. Abbott evidently deemed the honor great, for before becoming a candidate he resigned his high and lucrative position as solicitor of the Canadian Pacific Railway. The charge is made that the election of Mr. Abbott will give the Canadian Pacific an advantage, but the lightness

with which the statement is made shows that those who make it do not mean what they say, and the fact that it attracts little public attention proves that the citizens generally do not believe it.

MR. C. SHIELDS, formerly of the Canadian Pacific, with headquarters at Medicine Hat, has been appointed superintendent of the Montana Division of the Manitoba Road. This is a new division extending from Minot, Dak., to Great Falls, Montana. Superintendent Kemp, of the Breckenridge Division of the Manitoba Road, has resigned and has been succeeded by Roadmaster Mayer. E. J. Roberts has been appointed chief engineer in charge of construction of the road west from Minot. Mr. W. B. Scott, train despatcher of the C. P. R. at Winnipeg, has been offered and accepted the position of chief train despatcher under Mr. Shields.

THE *Harriston Tribune* says:—The other day when the Canadian Pacific Railway exhibition car was at Galt station some little boys were on the platform of the car, and while doing so incurred the displeasure of the porter in charge. Out of revenge for some boyish freak the porter struck one of the lads a heavy blow with a cane, cutting one of his ears open. The matter was reported to Mr. Callaway, district passenger agent at Toronto, who immediately telegraphed the dismissal of the porter. Mr. Callaway is deserving of commendation for his prompt action in the matter.

Construction.

IT is expected that the last section of the Lake St. John Railway will be graded early in this spring and that the road will be completed to the lake before the end of the summer.

SIR CHARLES TRIPPER, during the recent election campaign, announced that the Government, if sustained, would complete the railway from Oxford to New Glasgow as a public work.

THE Montreal & Western Railway will be built from St. Jerome, Que., to the Desert, a hundred miles up the Gatineau River. The new road will open an immense and wealthy country.

JAY GOLLO says he expects to build as many miles of new railway as he did last season. This is taken to mean that the king of American railway affairs has no fear of the new Inter-State Commerce Bill.

THE location of the Thunder Bay Colonization Railway from Beaver mine to a point 43 miles west of the junction with the Canadian Pacific, has been authorized by the directors. The work is in charge of Mr. Wickstead.

A ROAD is proposed from the Piles branch terminus at St. Tite, Que., to Lake St. John. The new line would open up a country of great wealth in good land, timber, mines and fish. Some local bonuses have been voted and a Government subsidy, it is believed would be granted.

THE Union Pacific Company has put everything in readiness for the extension of its system into the Territories of the far North-West. There are, however, several contingencies that may arise and prevent this building of new roads. Still the construction of branches and feeders into this new region would be wise.

INSTEAD of bridging Moosehead Lake, Me., as was at first intended in the short line extension of the Canadian Pacific through Maine, the company will build by the foot of the lake after securing permission from the Maine Legislature to change the location. The Bangor and Piscataquis road will be crossed at Greenville, Me., and will be paralleled as far as Brownville. From Matawamkeag to Vanceboro the European and North American Division of the Maine Central will be used after making great improvements upon it, the cost of which will be borne by the two companies equally.

THE *Sarnia Canadian* says:—The proposal of the Michigan Central Railway to erect a bridge at Detroit for a winter crossing has elicited very strong navigation interest all along the lakes. On its face, the proposal of the railway people to use the bridge only during ice blockades, and remove everything that interferes with navigation every spring, looks innocent enough, but vesselmen have very little faith that the railway people would be contented with their own proposal. They are very certain that the winter use and spring removal of the bridge would be only the entering end of the wedge, and that a summer bridge with all the annoyance to navigation that that implies, would speedily follow.

MR. J. R. BOORN, who has a large interest in the Canada Atlantic, is credited with having made the following statement to an interviewer: The Canada Atlantic Railway Company will, before they begin to think of selling, extend their road to Georgian Bay, and the route of this extension will be from Renfrew *via* Eganville up the valley of the Bonnechere running near the Big Opeongo Lake thence westerly to the Georgian Bay, thus forming the shortest possible route to the seaboard by 200 miles. When the scheme I have just outlined is an accomplished fact, when I get the Canada Atlantic Railway completed and running from the sea to the Georgian Bay, and if a satisfactory price is offered me, then, but not till then, I may be willing to sell my interest in it, as I would my interest in any other enterprise if a satisfactory price were offered; when that day arrives, there will be no lack of would-be purchasers.

THE location of the Quebec, Montmorency & Charlevoix Railway has been completed, and estimates are now being made for bridging, etc. The work will be pushed through as quickly as possible in the spring. The full length of the line is thirty miles, running east from Quebec from the Palais station, skirting the north shore of the St. Lawrence, passing the Montmorency Falls, and working its way to Ste. Anne through the oldest settled part of the Province of Quebec. Those who have sailed down the St. Lawrence below Quebec

will recollect the grandeur of the scenery through which the road passes. For miles the shore is one continuous village. H. J. Beemer is the president of the company and Israel Tarte, of Quebec, vice president. One of the original promoters is Mayor Langelier, of the city of Quebec.

THE following description of the proposed bridge across the St. Lawrence, at Quebec, is from the *Montreal Star*:—The plans for the bridge and its approaches have been prepared by Sir. James Brunlees, the eminent English engineer, assisted by Mr. A. L. Light, M. Inst. C. E., government engineer of the Province of Quebec. The St. Lawrence, at the point selected for the bridge, is comparatively narrow, the width from shore to shore being 2,400 feet. But the great depth of water prevents the construction of piers in the centre, hence the new cantilever principle has to be adopted for the superstructure. Two massive piers of granite masonry will be built at a distance of 500 and 240 feet from the shores of the river in a depth of about 40 feet of water, and on these the enormous cantilever iron work will be erected. The piers will be built sufficiently high to allow the masts of the largest ocean steamers to pass under the centre span. The dimensions of the bridge will be as follows: Length of centre (cantilever) span, 1,442 feet; length of northern shore span, 487 feet; length of southern shore span, 487 feet; total length of bridge and approaches, 3,460 feet; height from high water mark to bottom of bridge, 150 feet; height of piers above high water, 150 feet; extreme height of top of cantilever above high water, 408 feet. The centre span will be 290 feet shorter than that of the cantilever bridge now being built over the Firth of Forth, which has a span of 1,730 feet and a total length of 10,000 feet. The Quebec bridge has been designed for a double track, but for economical reasons this may be altered so as to provide for a single track only. Mr. Sandford Fleming, C. M. G., in his book "Old to New Westminster," speaking of this proposed bridge, says that "the railway system of the Dominion will always be incomplete until the St. Lawrence is bridged at Quebec."

The Disallowance Question.

THE following appeared in the Ottawa correspondence of the *Toronto Mail* recently.—"Mr. LaRiviere, provincial secretary of Manitoba, was in the city. Your correspondent showed him the following paragraph appearing in the *Mail*: 'It is stated with a good deal of positiveness that some concession will shortly be made to Manitoba with respect to the disallowance question by the Dominion Government.' Mr. LaRiviere was asked for a definite statement in regard to the disallowance question. In reply he said disallowance had taken two forms, one under the monopoly clause of the Canadian Pacific Railway bill, the other as a general policy of the Dominion Government. Some acts that were disallowed in the first instance were in contravention to the Canadian Pacific Railway charter, but some later acts of the Manitoba Legislature

which, speaking from memory, he could not enumerate positively, had been disallowed as a general policy by the Dominion Government under the veto power which they possessed. That part of the disallowance question, which was entirely under the control of the Federal Government, he had reason to believe, would not be exercised any longer, and the government candidates in Manitoba had been permitted to make such an announcement. The Canadian Pacific Railway monopoly clause did not affect the original Province of Manitoba, but only the added territory. He could not say definitely what the Canadian Pacific Railway intended to do in regard to the matter, but he understood the company was willing to give up the present rights within certain limits.

Railway or Railroad ?

THE *Railway Age* says:—Although the *Railway Age* has held its peace for some time in regard to the absurd custom of representing the word "Railroad" by the letters R. R., it does not cease to groan in spirit over the violence of etymology, orthography and good taste which that custom indicates. It has looked in vain for any defence of the practice of writing R. R. for Railroad while abbreviating Railway to Ry. If R. R. is right then R. W. is the proper way to abbreviate Railway. If Ry is sensible and convenient as an abbreviation, as it certainly is, then why not Rd? We observe that the Kansas railroad commissioners in their last annual report, evidently appreciating the bad taste and bad typographical appearance of R. R., have boldly adopted a new abbreviation for the two words which has the merit of uniformity and consistency, Railroad being represented by Rld. and Railway by Rly. This certainly is better than the plan of abbreviation which assumes that the full expression is Rail Road—an obsolete and improper designation. But while the Kansas commissioners should be commended for their good taste and their independence in moving in the matter of this reform, it is not evident why they do not discard the letter l in both abbreviations and simply write Rd. or Ry. It is to be hoped that in their next report they will make this final move toward the proper and uniform abbreviation; and moreover that other state railway commissioners will take the same action, even if railway officials are so bound by custom and habit that they are slow about venturing to abolish the barbarous R. R., the absurdity of which many of them admit.

American Description of the P. E. I. Tunnel.

THE following is from the *Railway Register*, of St. Louis:—

Consul Keim sends to the State Department at Washington, D. C., an interesting report of the scheme to connect Prince Edward Island with the main land by a railroad fourteen miles long, under water.

When, in 1872, Prince Edward Island went into Confederation, the Dominion Government guaranteed, among other things, to keep open winter communication with the mainland, and

in 1873 the winter steamer, *Northern Light* was put on to do this. She failed. High tides bring immense quantities of ice up and down the strait.

The amount of subsidy granted annually by the Government to Prince Edward province for ice-boat, summer steamers, and loss on island railway is about \$200,000.

In 1873 George W. Howlan, a member of the Dominion Senate, and since 1862 a United States consular agent, conceived the plan of an iron tubular railway for a railway track, so goods can be shipped through at all seasons without change of bulk, shortening the time, not hours but days, and increasing trade with the United States, as there can be no moving of freight during the winter months.

The shortest distance from Prince Edward Island (Carlton Head) to the mainland in New Brunswick is fourteen and one-half miles. It is proposed to run out on piles one mile from the New Brunswick shore.

The tunnel will be sixteen feet in diameter, built in segments of five segments to the circle, in ten-foot lengths, composed of iron, and lined inside with two feet eight inches of concrete in the bottom and one foot around the circle. It will be laid by a plan recently patented in the United States.

The Dominion Government made a survey of the strait last summer over the proposed route. The bottom was found free from rocks and composed entirely of brick clay.

The work is thought a simple and practicable one, and will take about three years to build from the time it is started, and will cost about \$5,000,000.

West Indian Trade.

THE *Ottawa Journal* says:—The announcement that the Federal Government proposes to subsidize a steamship line maintaining a fortnightly service between Canada and the West Indies created great satisfaction in mercantile circles, especially in the Maritime provinces. The importance of the trade that might be worked up in this direction has been recognized for a number of years. In 1875 a commission was appointed to visit the West Indies. The first thing they realized as necessary was steam communication, and the Governments of Canada and of the islands in the West Indies were induced to promise large subsidies, but they fell through. The trade between the two colonies in 1885 amounted to about \$5,000,000, of which about \$4,000,000 was fish, the remainder \$1,000,000 being other products of the islands. It is calculated that if steam communications and trade relations were arranged, Canada would receive direct all the tropical productions and manufactures which are now received through other countries. In 1875 Cuba and Porto Rico had an almost prohibitory tariff, so that it was impossible to do any trade with them; but now foreign vessels can trade with these islands on the same terms as the Spanish themselves.

"An act to build up the Canadian Pacific railway at the cost of the business interests of the country" might be suggested as a title for the Inter-State Commerce Bill.—*Ex.*



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Our readers are requested to send us court decisions and newspaper clippings relating to railway interests.

It is desirable that communications, new advertisements and changes in old advertisements be handed in before the 10th of the month.

W. B. CAMPBELL, *Publisher.*

Offices—64 Bay Street, Toronto.

TORONTO, MARCH, 1887.

THE SAULT CONNECTION.

WORK on the Canadian Pacific line to the Sault is proceeding rapidly and in a few months will be completed. The Grand Trunk awaits only the solution of some legal problems to proceed with its projected branch. It is announced that the Brockville, Westport and Sault Ste. Marie have completed financial arrangements, not only for the rapid completion of work immediately contemplated, but for the extension of the line to the Sault. The Pontiac and Pacific Junction, a road not now much known, but representing large capital and immense influence, is applying for an amendment to its charter, which will authorize its extension to that magical point, the Sault. Other projects are being made ready and will be heard from ere long.

These projects represent the ambitious of at least three important points, each of which seeks to direct as much of this trade as possible to its own advantage. The Canadian Pacific will carry the trade direct to Montreal and, when necessary,

on to ports which are open the year round. The Grand Trunk will bring a large part of this important traffic through Toronto and so to Montreal or other ports. By the Brockville, Westport and Sault Ste. Marie line, Brockville would be made the jumping-off place, so far as Canada is concerned, connections having already been provided, it is said, for New York and Boston. This plan, if successful, would establish a metropolis in the midst of the Thousand Islands. The Pontiac and Pacific Junction project is more to the benefit of Montreal than any other place, and the road would have a choice of routes from Hull, either by the Canadian Pacific, or by the Canada Atlantic and Grand Trunk to Montreal. If cordial relations existed with either, the connections to eastern ports would be ample. Important local interests would be promoted by this line.

It is safe to say that the connection with the Sault by the Grand Trunk would have been established before now but that the Villard interest on the Northern Pacific insisted upon the extension of the line to the Pacific ocean, instead of seeking as Villard's predecessors proposed, the most advantageous eastern outlet for the road from the first. The Northern Pacific may well regard itself, as Sir Henry Tyler says he believes it does, as the "natural ally" of the Grand Trunk. When it became clear that the Northern Pacific would build west and not east, there was no object in the Grand Trunk building a road which could only lie idle until the necessary connection was furnished. Now that an extension of the Northern Pacific is building, there is every inducement for the Grand Trunk to proceed as early as possible with the construction of the Sault line. One of the greatest claims put forth by the Canadian Pacific is that its line from ocean to ocean is under one management. With the Sault line constructed, the Grand Trunk and the Northern Pacific would each practically have a through line from ocean to ocean for they are "natural allies" and that line throughout would command a larger local traffic than the Canadian Pacific, owing to the fact that the latter traverses a newer, and therefore less thickly settled country than the former. The possibilities of traffic on such a line are simply limitless. The importance of it to Toronto is so great that this city

will wholly reverse its record if it does not assist in every way to hurry it forward.

One of the difficulties in the way of the Grand Trunk is the litigation at present pending respecting the located line. The Grand Trunk interest has appealed to the courts to prevent the construction of the Canadian Pacific over the location, as they claim, that was made for their line. The road is to be built under the charter of the Ontario & Sault Ste. Marie Company. But the technical expiring of the time allowed for the work occurred a few days ago, and on this ground, as well as others, the Canadian Pacific allege that the rights, if any were established, have lapsed. At present a Bill is before the Ontario Legislature to extend the time, and this doubtless will be passed. The greatest lawyers are engaged in this case, and it is being argued at great length. With the proverbial "laws delays," it will probably be some time before a final decision is reached. Should the case go against the Grand Trunk, it will, of course, facilitate the work of Canadian Pacific and retard that of the Grand Trunk. This will keep Toronto so much the longer out of the Sault trade; but that the Grand Trunk line must be built before long, there is no room to doubt.

The immense sums of money spent by closely competing roads in order to save every fraction of a mile of distance on the through trade proves that the Sault line, notwithstanding all disadvantages of present lack of local traffic over part of the route, and notwithstanding the vexatious barriers of international restriction, is the route of the future. It is the air line from east to west for all points north of a line drawn from San Francisco to the Canadian sea ports, and these sea ports are nearer to Europe than those further south. With every Canadian sea port there is some disadvantage, of ice, lack of existing trade, want of necessary accommodation, etc. But these are disadvantages which can be overcome or neutralized, while the shorter distance is a matter which no human device can alter, and every mile saved is a set-off against whatever disadvantages skill and capital cannot overcome. If the Sault turns out to be the best route for a great portion of the North-western States, all four projected roads might be

built to the Sault and half a dozen others besides, and still there would be traffic for all.

THE RACE TO THE SWIFT.

AN exchange in the course of an article giving sage advice to wage-workers, says:—"The country offers to every young man just as good opportunities for procuring wealth and power as it offered to Gould, Dillon, Sage, and the many other men who started poor." This is the kind of stuff that the unsuccessful in the race of life have hurled at them. In the first place it is not true. As well say that it is as easy to discover a new continent now as it was in the time of Columbus. In the second place, if it were true, it would prove nothing. The lesson that preachers of cheap advice of this kind seek to inculcate is that because the competitors all run on the same track and there are sure to be some flyers in the lead, nobody has any reason to complain because he is left behind in the race. But the mere fact that there are a few prizes and all the non-successful are distanced, is the best possible reason for complaint. To say that if a man has Jay Gould's energy, enterprise and keenness he will win a place beside Jay Gould, is to say in effect that the great prizes of the world, uncounted wealth, unlimited power, are to be offered only for excellence in the Jay Gould class. Why should the track be made to suit Jay Gould's best points, or why should it be allowed to get into that condition? Why should not the muscle of a Sullivan, the keen eye of a Carver, the poetic fervor of a Whitman or the devotion of a Spurgeon be placed on a line with quick wit or insatiable ambition? The law does not in so many words declare that to Gould, Dillon or Sage, or those like them shall be given unlimited power to purchase the good things of this world; but it is only because of the state of the law the present state of affairs obtains. Wilkie Collins has justly said that "everybody in the world is the greatest something or other, you know." It is not possible to give everybody's super-excellent qualities equal recognition with every other body's, but it is possible to move in the direction of greater equality, and in that direction the world is moving. The world makes mistakes and often imposes worse discrepancies in place of those it removes. But

that is no argument in favor of standing still. More good changes in the laws are made than bad ones, and the time of equality is approaching. This confounding of the chance of everybody to get to the front with the idea that it is possible under present conditions for all to be in the front, is not likely to do any good. On the contrary it must tend to exasperate those who know that their comparatively slow pace is due in part to the track, and exasperation is not the feeling to arouse on vital questions of public policy.

THE GLOBE SPECIAL.

A NOTABLE step in the railway development of the Dominion—and a more notable step still in its journalistic development—is the engagement by *The Globe* of this city of a special train to carry only the *Globe* to London in time to catch the early mails to all parts of the western peninsula of Ontario. It is understood that this great enterprise has been under negotiation for a long time, and it is creditable alike to the enterprise of Canada's greatest newspaper and to the resources of the Grand Trunk Railway that the arrangements have been so satisfactorily made and so splendidly carried out. *The Globe* in this is but carrying out its traditional policy, proving that the spirit that George Brown breathed into it still lives, and that those in control to day are animated by it to emulate and even surpass the deeds of the most forceful man that Canada ever produced. Men in the heat of the battle of life to day know how their fathers have told them of the times when *The Globe* first received by telegraph reports of the proceedings of the legislature and laid them before its readers a few hours after the House had adjourned—a sorcerer's feat in those days. Then the Atlantic cable came and *The Globe* had its own correspondent in England. Then to assert the pre-eminence of Toronto as the centre of the province and of *The Globe* as the metropolitan journal, a special train to Hamilton was run, at an expense which, in those days, was deemed simply fabulous. But rivals were asserting their equality with the great journal, some even affected contempt for its "slowness," in that *The Globe* having prepared the way they, the rivals, were able to move speedily along the beaten path. The truth so often asserted, that

The Globe leads and all others follow, needed to be exemplified once more. The word is spoken and at one stride the great journal places itself years ahead of those who aspire to become its competitors. *The Globe* is in the present age and others are in the past.

The new train runs on the Southern Division of the Grand Trunk Railway, one of the best roads in the Dominion, leaving Toronto at 3:55 a.m. and reaching London at 6:40 a.m. The whole distance of 112 miles is thus covered in two hours and forty-five minutes. This is not a mere trial spurt or fancy experiment, but a feat which must be accomplished six days in the week every week in the year. It must be done, therefore, without seriously interfering with the traffic of the line, which is as heavy as any line of equal length in Canada. None but a thoroughly efficient staff could have so quickly adapted itself fully to the new state of things set up in a single day and with but short warning to them. Grave fears were entertained, even by some experienced railway men, as to the possibility of adding this new train to the regular business of the road. But the train has been running ever since the 4th inst. without a miss, without failing once to make the appointed connections, and without a mishap, even of the most trifling kind. The *Globe* train is an accomplished fact, and its daily journey is a daily certificate of the watchfulness, intelligence and care of the whole staff of the line, and through them a testimonial to the organizing powers of the chief officers of the division, Mr. Charles Stiff, superintendent; Mr. R. Larmour, assistant superintendent and the others.

The first run as stated above was made on 4th March. The man who has the honorable place of conductor was Mr. Wm. McKay, while engineer C. J. Donville, son of the Mechanical Engineer of the Southern Division, had charge of the engine—No. 900. James Rhynal was fireman, W. Cameron, brakeman, and George Gardner, baggageman. The train was made up besides No. 900, of baggage and express car No. 534, and the parlor car "Toronto." The crew has not always been the same, but in every case the most reliable and experienced men have been chosen to perform the duties on the *Globe* train.

To fully appreciate the effect of this revolution so far as journalism is con-

cerned, and in that as well as in its railway aspect RAILWAY LIFE is interested, it should be remembered that the Southern Division of the Grand Trunk Railway is the main artery of the country westward of Toronto, and that from London the centre of that fertile peninsula which, all in all is the finest piece of ground that exists, veins as large as arteries radiate like the ribs of a fan. On the way a large number of smaller lines are crossed which in turn cross others and even before the main distributing point is reached, packages of *Globes*, for scores of villages, towns and cities have been thrown off to be carried away by the earliest trains. The whole peninsula is thus reached at almost as early an hour as if a special train were run on every separate line. Speaking of this aspect of the case *The Globe* says:

When the special reaches London at 6:40 a bag of *Globes* is at once placed on the London & Port Stanley train, which leaves immediately. In this way St Thomas is reached at 7:25, while formerly by the old *Globe* train the papers did not get there by way of Hagersville until 10:30 or 11. In this way Aylmer is reached at 7:49 instead of 1:02, and Cayuga, Simcoe and Tilsonburg share the advantage proportionately. A train on the London, Huron & Bruce division of the G. T. R. now leaves with the *Globe* on board at 7:55, supplying a large district to the north. Clinton is thus supplied at 9:55 a. m. instead of 2:20 in the afternoon. *The Globe* now arrives at Wingham at 10:55 a. m. while, formerly it did not get there until 3:20 p. m. Such places as Exeter, Henshaw, Kippen and Blythe, are served proportionately early, while Goderich receives *The Globe* at 10:40 instead of at three in the afternoon. By sending papers over the London, Huron & Bruce, Brussels, Listowel and points on the Wellington Grey & Bruce are supplied about two hours earlier. Kincardine formerly could not be reached till 4:40 in the afternoon, but now the papers are there at 2:20. The people at Lucknow also get their *Globes* two hours ahead. Ailsa Craig, Parkhill, Meaford, and Forest, which formerly got *The Globe* at 1:05, 1:22, and 1:40, respectively, are now supplied by way of the L. H. & B., which crosses the Stratford line of the G. T. R. at Lucan at 9:20, and thus *The Globe* gets to Ailsa Craig at 9:31, Parkhill at 9:54, and Forest at 10:40. Stratford is supplied now at 8:40 a. m. instead of at noon. On the Sarnia line a train leaves London at 7:35 and Sarnia is reached at 9:45 a. m. instead of at 4:40 in the afternoon. Strathroy now receives *The Globe* at 8:20 as against 3:10 formerly. Petrolia was formerly supplied at 3:30 p. m. but is now at 8:35. Point Edward was not reached until five o'clock in the evening, but now *The Globe* is there at 10 a. m. St. Mary's is now supplied with *The Globe* between eight and nine in the morning as against 4:40 in the afternoon under the former arrangement. Norwich, a town on the B. N. & P. T. line, receives the paper at 9:02 a. m. instead of at noon.

Editorial Notes.

WE would direct special attention to the article in another column describing the snow sheds on the Canadian Pacific line through the Selkirks. The article is from *The Varsity*, the able journalistic representative of the men of Toronto University.

THE International Jubilee of Railways celebration is to open in Paris in May. Other countries are taking an active interest in the affair and will send exhibits of various kinds. Canada has as many miles of railway in proportion to population as any other country and also has the largest continuous railway in the world. What is being done to win us a creditable place in this great exhibition?

A CORRESPONDENT of the *Railroad Gazette*, signing himself "Resarf," points out that while improved heaters are used in first-class coaches and sleepers, the baggage-car is too often heated by a cheap cast-iron stove. In a smash it very often happens that the baggage-car is broken into match wood and the rest of the train piled on top of the remains. In such a case the improved heaters, however innocent they may be, cannot prevent a conflagration. The baggage car should not be overlooked when improved heaters are being dealt out.

As will be seen by the account of the meeting, given in another column, the Society of Civil Engineers has been formed under the happiest auspices. Such a society cannot but result in good to the profession and to the members individually. It will benefit the railways also by making a uniformly high standard for engineers. We are glad to notice also that incorporation is being applied for. Through a good charter the profession could be placed on a basis in which the qualification would be as well recognized as that of the lawyer or the doctor is now. Canadians are naturally proud of the able engineers Canada has produced. We trust that this society will be the means of giving increased usefulness to men who have already made a name for themselves and of bringing forward others who have genius, but are still without fame.

THE American North-West has everything to lose and nothing to gain by the proposed non-intercourse provisions against Canadian contemplation by Congress, and it is natural that such a proposal should arouse some apprehension in that important section. The feeling has not been better expressed than by the St. Paul *Pioneer Press*, the principal newspaper of the North-Western States. This journal points out the advantages about to accrue to St. Paul and other cities through the opening of the Sault Lines, and strongly objects to those advantages being cut off merely for the benefit of a few in the east. *The Pioneer Press* says:—

We have more than a general and national interest in the quarrel which is now being forced as rapidly as possible to extremes. The Interstate Commerce Bill, coupled with a non-intercourse act, would help Chicago to get out of the losing position in which she has been placed by the superior enterprise and advantages of the North-West.

WE regret to learn from a circular issued by Mr. M. McInteer, Grand Chief Foreman of the Brotherhood of Railway Section Foremen of North America, that this most important organization is already threatened with difficulties so soon after its establishment. It seems that an organization has been formed which claims to have vested in it the authority of the original body and which has assumed power to declare the Grand Chief Foremanship vacant and to elect another Grand Chief Foreman. Mr. McInteer, who is a man of energy and ability, as showed by the *Railway Section Foreman*, of which he is the founder and editor, has issued the circular referred to as a declaration that the organization stands as at first and that he is still the head of it. The secretary of the original order, Mr. M. Scanlan, having taken part in the second meeting is declared by Mr. McInteer to be deposed and his place filled by the appointment of S. A. Owen, until the Brotherhood shall declare its choice. Mr. McInteer also calls upon the members of the brotherhood to stand by the order and to cherish the principles it was founded to disseminate.

THE promoters of the Parry Sound Colonization Railway have received a promise of \$3,200 per mile from the Dominion Government and are seeking also a bonus from the Ontario Government.

They base their claims not merely on the importance of the road but upon the fact that the crown lands of Parry Sound yield in the shape of timber dues large revenues to the Provincial treasury and that the district has never received any fair return, while the older counties that give nothing to the Province directly have, in very many cases local railways subsidized by the Province. Judge McCurry, Mr. Wm. Beatty, Mr. Ireland, and other promoters of the road have been in Toronto personally urging attention to the claims of the project. The Province, since the Dominion assumed control of Provincial railways, has not granted bonuses, but it is not impossible that an exception will be made of this case. The road will run from Parry Sound to some point on the Northern Pacific Junction and will furnish a much needed link of communication not only for the lumbermen and farmers of the district but for the constantly increasing number of summer tourists who seek the Georgian Bay as one of the most delightful places of rest on the continent. The promoters say that with fair support from the Province they can have the road running in less than a year.

RAILWAY LIFE, desirous of being identified in the minds of railway men with study and self-improvement, submits to its readers a special proposal. If the members of any organization will secure among themselves or outside their membership twenty subscribers to this journal and will send \$20 to pay the subscriptions in advance for one year, we will send to their secretary a copy of Webster's Unabridged Dictionary. This work has been well called "a library in itself," it is one of the most comprehensive, accurate and instructive compilations ever read. There is no subject on which it does not throw light, and on many it furnishes the most complete and authoritative information within the covers of any book. A new feature of the work is a pronouncing gazetteer of the world, containing over 25,000 titles briefly describing the countries, cities, towns and natural features of every part of the globe. No man who reads can afford to be shut out from access to a good dictionary, and if Webster's Unabridged has a place in the meeting room of the division, lodge or assembly every member will have an opportunity of consulting it. If any of our readers is

ambitious to possess this work we will send it to him if he will get up a club of twenty members.

THE effect of the Inter-State Commerce Bill upon American railways cannot be bad if it does not injure those who have *bona-fide* money interests at stake or those who draw no more than fair pay for actual work in operating. Though the new law may prevent the acquirement of control of roads by inflated and unjustly appropriated stock, and thus injure the business of stock-gamblers and corporation-wreckers, that is nothing for genuine railway men or genuine inventors to feel sorry about. That this is likely to be the effect is indicated by the opinion of the *Railway Times*, of London, England, a journal published mainly in the interests of railway shareholders in Great Britain. Speaking before the new law was signed by the president the *Times* gives the following opinion, evidently after careful consideration:

The Inter-State Commerce Bill, should it become law, will of course prevent pooling or special preference contracts of any sort on tariff rates throughout the United States and it will regulate many oppressive abuses. Now, as without this Bill, and only a possibility of its passing in sight, prices have tumbled to what they are, what will be the figures when it really does step in and take control? Naturally one would say, down, down, down. We say no. Should it become law—and, we repeat, some such is bound to prevail in the immediate future—it would be the dawning of better days for American stocks. Wholesome business laws would then take the place of rapscallion methods that change with the pocket interests of the controllers of railways. The railways would be brought within the full and benign influences of the general laws of commerce, and the result would be the sweeping away of rubbish, the assumption of legitimate market values for properties, and the building up of the same from this newly created and much-wished-for foundation. We say pass the Bill by all means.

THE WISCASSET AND QUEBEC.

It is not often that so plain and convincing a statement of advantages to be reaped is given to the public as is to be found in a pamphlet issued by the company which has in hand the Wiscasset and Quebec scheme. This road proper, is chartered from deep water at Wiscasset, Me., to the boundary line at Quebec Province, where connection will be made with the Point Levis and Kennebec for Point Levis opposite Quebec City, the whole distance by the route selected being 241 miles. Of this distance a portion is already covered by existing roads, so that there remain to be built

only 167 miles. This project has been agitated by different people in former years, but not until now has there been definite reason to expect success. But Wiscasset claims to be the best harbor on the coast, not excepting New York, Halifax or any other established port and the best point for the Atlantic terminus of the Canadian Pacific. In proof of this there is a mass of expert testimony given in the pamphlet referred to, the statements being clinched and verified by a copy of that part of the authorized nautical chart which takes in Wiscasset, its approaches and surroundings. The necessary depth of water for the great vessels of to-day is found together with absolute freedom from ice and storm. The sailing distance to Liverpool is 150 miles greater than from Quebec, but the advantages of the port, it is said, more than counterbalance this. It is 250 miles nearer from the North-West to Liverpool by way of Wiscasset than by any route connecting with New York. This includes the American as well as the Canadian North-West, for the Sault Ste. Marie Line now so rapidly advancing to completion will deflect the trade by way of the Sault instead of by Chicago. Besides the through trade the new lines will open up a rich and important country in Quebec and Maine, which is already in a position to furnish a great deal of traffic and the possibilities of which are well nigh boundless. The enthusiasm shown by the promoters of this line is another indication of the tremendous importance of the Sault connection and is a feature of the great struggle of localities which is now in progress to place themselves in a position to reap the benefits which will grow out of the change. The following gentlemen are the committee representing the Wiscasset and Quebec Railroad Company:—Henry Ingalls, Joseph Tucker, F. P. Erskine, Wiscasset; J. R. Bodwell, Hallowell; Selden Connor, J. Matchester Haynes, Augusta; William Atkinson, North Anson.

RAILWAY BILLS BEFORE THE LEGISLATURE.

A NUMBER of bills affecting railway enterprises are now before the Ontario Legislature, and others are promised as soon as they can be drafted and printed.

Col. Morin, of Welland, seeks the incorporation of the International Ferry Railway Company. The act constitutes Benjamin Baxter, Edwy Baxter and W. B. Pierce, together with such others as shall become shareholders of the company, and authorizes the construction of a railway of standard gauge from some point on or near the boundary of the garrison reserve, in Bertie township, to a point within the village of Fort Erie. The company is authorized, at any point where the railway approaches any navigable waters, to purchase and hold wharves, piers, docks, water lots and lands, and to build upon them and to own and run steam vessels. At the western terminus the company is authorized to own and manage a summer resort and pleasure grounds. The capital of the company is \$50,000.

Hon. C. F. Fraser introduced a bill to amend the charter of the Brockville, West Port &

Sault Ste. Marie Railway Company. The issue of bonds and debenture stock is limited to \$25,000 per mile of the road and its branches. The company is authorized on approval of two-thirds of the shareholders to amalgamate with any other railway company now incorporated or to be incorporated, or to lease the line or acquire running powers over other lines. The time for the fulfilment of contracts with municipalities, granting bonuses, is to be computed only from the date of the deposit of the money or securities, promised in the hands of trustees as provided in such contracts. The company is given power to acquire running powers over bridges, either over the St. Lawrence and the St. Mary rivers, and the time for completing the road is extended to eight years from the granting of the charter.

A bill to amend the charter of the Eastern Ontario Railway Company is presented by M. Mack, of Cornwall. By this measure the charter, which had lapsed through non-completion of the railway, is revived, and the time for commencement of the road is extended to three years, and for completion, to eight years from the passing of this act. There is to be a new provisional board, consisting of Messrs. Alexander MacLean, Donald B. MacInnean, J. G. Snetsinger, Francis H. Chrysler and James W. Russell.

The Southern Central Railway Company seeks incorporation under a bill presented by Dr. McKay, of Oxford. The proposed line will run from Port Burwell to Stratford, via Ingersoll, with a branch to Paris and Brantford. The provisional directors are: William Watterworth, James Trow, M. P., Frank Turner, C. E., Joseph Gibson, Nicol Kingswill, W. R. Marshall, R. T. Sutton, Thomas William Dobbie and Harry Symons, with power to add to their number. The capital is half a million dollars, with power to increase as provided in the general railway act of the province. The company is authorized to own and operate vessels to ply in connection with the railway. The time of commencement of the work is limited to three and the completion to five years after the passing of the act.

The Thunder Bay Colonization Railway Company applies to have its name changed to the Port Arthur, Duluth & Western Railway.

A bill presented by Mr. Waters provides that ditches, drains or creeks running along or under railway tracks may be used as an outlet for drains constructed under the act. The award of the engineer of the municipality is all that is necessary to decide the question, subject to the same mode of appeal as provided for ordinary land owners under the act. Provision is made that the track or road shall not be harmed or traffic interfered with, and the engineer of the railway or another on his behalf may inspect the work, as it is being proceeded with or afterwards, but such inspection shall not interfere with the duties demanded of the engineer of the municipality in the way of inspection. The railway company is not to be charged for the cost of the work or any part of it, and the engineer who acts on behalf of the railway has no claim for remuneration.

Hon. Mr. Fraser presents a Bill to incorporate the Ottawa & Thousand Island Railway Company to run from Ottawa through Carleton, Grenville and Leeds counties, to a junction with the Brockville, Westport & Sault Ste. Marie, either at Brockville or elsewhere in Leeds county. The company is authorized to run boats in connection with the road. The capital stock is \$1,250,000, and the incorporators are: Robert G. Hervey, William B. Smellie, Hugh T. Fitzsimmons and William H. Jones, of Brockville; and Clarkson Jones, of Toronto.

Society of Civil Engineers.

THE *Montreal Herald*, of Feb. 25th, gives the following account of the great meeting of civil engineers held in that city:—

The civil engineers from all parts of the Dominion attended at the Harbor Commissioners' office, on Feb. 24th, for the purpose of forming an association which would look after the interests of the profession. There were representatives from Ottawa, Toronto, Kingston, Peterboro and all towns in the Dominion present, Mr. T. C. Keefer, of Ottawa, presiding as chairman. The meeting was private, but a representative of the *Herald* afterwards got the result of the deliberation. A constitution was drawn up and adopted, and the following officers were elected: Mr. T. C. Keefer, Ottawa, president; and Messrs. W. Shanly, Montreal, C. Gzowski, Toronto, and J. Kennedy, Montreal, vice-presidents; Council, Messrs. E. P. Hannaford, H. Wallis, P. W. St. George, H. T. Boeoy, P. A. Peterson, and Louis Lesage, Montreal; N. F. Broley and F. N. Gisborne, Ottawa; H. D. Lumsden and A. Macdougall, Toronto; S. Keefer, Brockville; Hurd Peters, St. John, N. B.; W. T. Jennings, London; H. N. Patton, Winnipeg and H. S. Poole, Stellarton, N. S. Montreal is to be the headquarters of the association, which is to be entitled the Canadian Society of Civil Engineers, and regular annual meetings will be held here. In the evening a conversation was given by the resident members to their visiting brethren in the Redpath Museum, which was largely attended.

Among those who were present were Messrs. Andrew Allen, Andrew Robertson, A. F. Gault, W. C. Van Horne, Sir Wm. Dawson, His Worship the Mayor, Jos Hickson, W. Seargeant, W. Wainwright, Chas. Cassils, R. B. Angus, J. K. Ward, and others. The guests were received by the reception committee in the upper hall, and a very pleasant time was passed inspecting the scientific specimens exhibited in the museum.

Sir William Dawson delivered a brief address of welcome, after which Mayor Beauregard and Mr. T. C. Keefer, the president of the society, made a few remarks. The seance was closed by the serving of refreshments in the Lecture Room.

It is stated that owing to financial difficulties, the Russian Government will suspend operations for the present on nearly all the great railways under construction, including the trans-Siberian road to the Pacific, the Asiatic counterpart of the Canadian Pacific.

The St. Lawrence Route.

At a general meeting of the Board of Trade, of this city, last month, Mr. Barlow Cumberland, well known in Canadian railway circles, brought up the question of enlarging the canals. Mr. Cumberland is a member of the Canadian Marine Association as well as of the Board of Trade, and is peculiarly well fitted to discuss this question. He put his subject before the meeting by moving this resolution, which Mr. G. A. Chapman seconded:

"That the interests of the Dominion demand that the canals between Lake Ontario and the sea be at once enlarged to the same size as the Welland Canal, and the board recommends that for the furthering of the export trade, via Montreal, the reduction of tolls continue to be made on export grain passing through the canals."

Mr. Cumberland addressed the meeting for over half an hour in support of his motion. His speech, which was full of interesting data and facts, was attentively listened to. He said it was eminently in the interests of the country that the St. Lawrence Canal should be enlarged to a uniform size, so that vessels could proceed from Lake Erie and Lake Ontario ports without breaking bulk at Kingston. The canal had been enlarged at Cornwall and Lachine, but at the other points there was barely a nine-foot draught. Next in importance to enlarging the canal was a continuance of reduced tolls on grain passing to the seaboard, via Montreal, for export. The government had merely made these concessions temporarily from year to year. The United States Government had permanently abolished the tolls on grain on the Erie Canal. This reduction on our canal was only introduced in 1855, and was but partially felt in that year, when 5,910,000 bushels of grain for export passed through the canal. In 1886 10,320,000 bushels went down.

He went on to explain that it might be objected that the country could not stand the large expenditure which these improvements would entail, but it should be remembered that this sum, however great, would be returned in the shape of reduced freights on products en route to the seaboard. That would be equivalent to a dividend on the outlay. Mr. Cumberland pointed out another immense advantage by the enlarged canals by shipping coal direct from the Nova Scotia mines to the lake ports without transshipment at Montreal, which cost from fifty to sixty cents per ton. With the deeper canal the gulf-going steamers of the lower ports could come straight through to Toronto. Nova Scotia coal of the lower grades, for manufacturing purposes, was sold on the docks at Montreal at \$2 per ton, while for the same grades in Toronto, the price had been \$3.05. Mr. Cumberland, continuing, said he could not impress upon the meeting too strongly the great importance of this project. Subsequently Mr. Cumberland said to the reporters that he thought it would require about \$10,000,000 to deepen the canal as proposed.

Mr. G. A. Chapman strongly advocated the project as set forth in Mr. Cumberland's

motion. "It was all the more necessary to make these improvements," he said, "in view of the retaliatory policy of the United States Government and of the Inter-State Commerce Bill, which had been introduced in Congress."

Mr. Thos. Davies favored sending a strong deputation to Ottawa at once to press the matter upon the government.

Mr. A. M. Smith said it would require a great deal of pressure on the government to obtain a continuance of the reduced tolls on grain for export. Last year's concession had been given with bad grace and after a hard fight.

Mr. Cumberland and Mr. Chapman were then named as the deputation.

On Tuesday, 8th inst., the Toronto deputation, together with other gentlemen from this city, Montreal, Kingston and St. Catharines, waited upon the government to lay the case before them. The following made up the whole deputation: Messrs. Barlow Cumberland and G. A. Chapman, Toronto Board of Trade; Capt. Crangle, ex-Ald. Hall and Mr. W. W. Keighly, of Toronto, representing the vessel interest of the lakes; Messrs. A. T. Freed and J. B. Fairgrieve, of Hamilton; Mr. Sylvester Neelon, of St. Catharines; Capt. Gaskin, Messrs. J. S. Muckleston, G. Richardson and John McIntyre, of Kingston; Messrs. Andrew Allan, D. A. Watt, A. G. McBean, D. G. Thomson, Ald. Grenier, Chas. Gould and A. G. Thomson, of Montreal. They were accompanied by Sir Donald Smith and Mr. J. J. Curran, of Montreal, and Mr. Taylor, of Gananoque, all members of parliament. The deputation was received by Sir John Macdonald, Sir Charles Tupper and Hon. J. H. Pope. The western men urged the deepening of the canals, and those from Montreal the abolition of tolls and the assumption by the government of the debt incurred in working the deep channel through Lake St. Peter. Sir John Macdonald, in his reply, declared that it was the policy of the government to deepen the canals as rapidly as the resources of the country would permit. The question of reduction or abolition of tolls would be taken into consideration at once. He did not refer to the subject of the Lake St. Peter debt.

Snow Sheds in the Selkirks.

The following interesting description of the snow sheds on the line of the Canadian Pacific is from the *Parasity*—Any traveller in Eastern Canada who is familiar with the light structure of the snow sheds on the Intercolonial Railway can form little or no idea of the snow sheds in the Selkirk range of mountains on the Canadian Pacific Railway, or understand the part they have to play in keeping the road open in the winter time. The snow sheds on the Intercolonial Railway are made of a framework, like that of a barn, covered with planks nailed on, with small spaces between, very much like the boards on a fence. The primary object of these sheds is to prevent snow drifts from accumulating on the road. On railways which pass through a mountainous country the snow sheds assume a much more durable and permanent char-

acter, as the service that is expected of them is much more important. It is, in fact, to keep the line open and clear from the accumulation of snow and ice brought down by avalanches, or, as they are more frequently called, "snow slides."

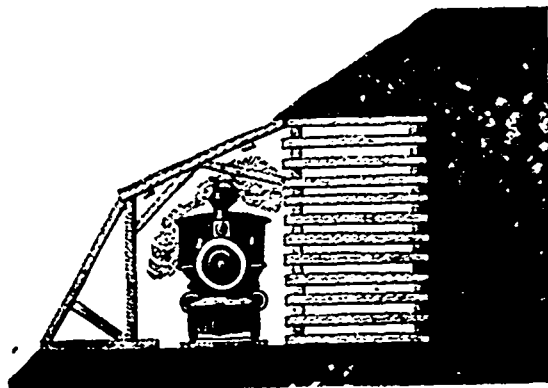
A writer in a recent number of *Chambers' Journal* divides avalanches into four kinds, viz., the powdery, the creeping, the glacier, and the true avalanche, or avalanche proper. The first he describes as being composed of finely divided snow and ice, which is broken up into the form of powder in the descent. This kind of avalanche is the most likely to disturb the air, and so produce a hurricane, the vast power of which it is impossible to estimate. The creeping avalanche, as its name implies, is produced when vast masses of snow and ice move slowly down a gradual slope. The glacier avalanche is brought about by the mass of ice at the lower extremity of a glacier becoming detached and sliding down into the moraine below. Lastly, the avalanche proper is the rapid descent of a mass of snow, which, beginning high up on the mountain slope, and increasing in volume and speed as it descends, rushes headlong into the valley below. It is to resist the effects of snow slides of this kind that the snow sheds in the Selkirks have been constructed.

The sheds themselves are composed of a crib work similar to that used in the construction of wharves. It is made of heavy cedar timbers, twelve inches square, with ends dove-tailed into one another, and spiked. The crib is securely tied, and is thoroughly filled with boulders and loose masses of rock. It stands in a space cut out of the mountain slope beside the railway track, and between it and the mountain. On the outer side of the track a series of triangular frames, placed at short intervals, made of the same material and the same sized timbers as the crib, are used to support the lower end of the roof, which extends downwards from the crib in a slanting direction. The crib is carried up much higher than the outer wall, so that the slope of the roof is, where practicable, as nearly in the same angle as the slope of the mountain as possible. The roof is strongly braced, and together with the outer wall and crib forms a structure sufficiently strong to bear the force of the descending snow, ice, boulders, and other debris, which is carried down in the snow slide. The roof and outer wall is planked, so that the interior of the shed is quite dark, but in summer time the outer wall plank immediately under the eave can be removed, in order to give light and better ventilation. The use of the crib-work on the inside is to prevent the whole shed from being carried away by the down-rush of the snow from above. The shed is of such a form that it offers very little resistance to the descending mass of snow, but allows the avalanche to pass over the roof and pile itself up in the valley below.

The track of a snow slide is very easily dis-

cernible even in summer time, from the fact that the uprooted trees, earth, boulders, and debris carried down, are piled up at the bottom of the valley, spreading out in a fan-shaped mass, and making a smoother and less acute slope than the rest of the mountain surface. The snow slide cuts a path for itself through trees, removing boulders, earth, roots, &c.; and the following summer only bushes and shrubs grow in the path made by the avalanche. The sides or margins of these slides show trees and rocks in a disturbed condition, though not carried away completely, as in the centre of the slide. Each year that a snow slide takes place in any particular locality, renders the probable recurrence of a slide in the same place more and more certain, as each year the slope becomes smoother and more free from obstructions of all kinds.

As the traveller proceeds west from Donald, or the first crossing of the Columbia River on the C. P. R., he finds himself passing down the canyon of that river on the left bank. After a few miles have been traversed, an abrupt turn to the left brings him into the narrow and rugged canyon of the Beaver, a small stream which here empties into the Columbia. The ascent through this gorge is at first made on the right bank, but as the valley opens out, the stream is crossed, and the ascent of the



eastern slope of the Selkirks is begun in earnest. As the summit of the grade is approached, several snow sheds are passed through. Rogers' Pass station, the summit of the Selkirks, near Mounts Carroll and Hermit, has an elevation of about 4,306 feet above the level of the Pacific Ocean. Leaving this station, the descent of the western slope is begun, down the valley and canyon of the Illecillewaet River. One shed on the western slope is about three-quarters of a mile long, and is passed through shortly before the "Loop" is reached. The others vary in length according to their position.

There are more snow sheds on the western slope of the mountains than on the eastern, on account of the snow-fall being heavier and the slides more frequent on that side than on the other. The effect of "weathering" on the Pacific side of all the ranges of mountains is very clearly marked. The ascent of nearly all the mountain slopes of British Columbia is, as a rule, easier when made from the eastern side. This probably arises from the fact that the warm waters of the great "Japan Current," striking the coast of America in the neighborhood of Vancouver Island, and which

renders the climate of Victoria so mild, causes a greater degree of severity farther inland. The warm water at the coast of necessity produces a great deal of moisture, which, as it moves inland, is successively caught by each of the mountain chains and is condensed and deposited in the form of snow or rain, according to the altitude, on the western slope of each range. This process, going on for ages upon ages, has produced a powerful modifying effect on the physical aspect of the country, and it is not improbable that it is to the influence of the Japan Current, analogous to the gulf stream in the Atlantic Ocean, that the skill of the engineer has been taxed to a somewhat greater extent in the Kicking Horse Pass and the valley of the McMillawaet than in the valleys of either the Bow or the Beaver Rivers.

Yale, B. C.

A. O. BROOKSIDE.

A Popular Superintendent.

At Parrsboro, N. S., on Friday, 18th Feby., the employees of the Railway Department, Cumberland Railway and Coal Company in a body invaded the residence of Mr. J. Gresham Aikman, the popular Superintendent. Mr. Aikman was found comfortably seated, surrounded by his family, reading the latest election news, and was very much surprised indeed at the appearance of such a large body of men. Visions of strikes and surprise parties flashed across his mind. However, he smilingly greeted the men and bade them be seated.

Mr. Fred Loashy produced a paper and proceeded to read the following address:—

PARRSBORO, N. S.

TO J. GRESHAM AIKMAN, Esq., Superintendent
C. R. & C. Co..

SIR:—We, the employees of the Railway Dept., C. R. & C. Co., have assembled here this evening for the purpose of showing in some manner the mutual confidence and kindly feeling existing between us and appreciation of your many good qualities as our superintendent. Although in the past we have not been unmindful of your many acts of kindness, yet we have never shown our appreciation of you in any marked or tangible form. Since you became superintendent of this railway those who have served under you can testify to your unfailing courtesy and careful management.

We ask that you accept the accompanying salmon rod as a mutual good will offering, and we trust that you may long be spared and have health and strength to wield it with pleasure and success.

With the best wishes for the continued happiness of yourself and family.

We are, Sir, yours respectfully,

FRED LOASHY,
H. H. McCLELLY,
and forty others.

Mr. Aikman, who was taken entirely by surprise, made a feeling reply: he thanked the men very heartily for their expressions of good will and said the efficiency of the railway depended largely upon the good understanding existing between employers and employees, and he felt confident that the C. R. & C. Co. would compare favorably in that respect or any other with any branch railway in the Dominion.

The salmon rod was made to order by Mr. Joe Dalzell of St. John, N. B., is of the latest

pattern and what is known as the Dalzell Combination rod, being composed of sectional strips of lancewood and greenheart, and cost over fifty dollars. The mountings are of solid silver and bear the following inscription:—
“Presented to J. Gresham Aikman, Esq., Superintendent C. R. & C. Co., by the employees of the railway department, as a token of respect and esteem.”

The Location of Railways

Mr. Wood, the representative of North Hastings in the Ontario Legislature, has introduced a Bill in that body to amend the law relating to Provincial Railways. Mr. Wood proposes to add to section 20 of the General Act, which section deals with the expropriation of lands, arbitrations, etc., the following clause:—

“Any party feeling aggrieved by the proposed location may within fifteen days after receiving the notice aforesaid, apply to a County Court Judge of the County where said location has been made, by petition setting forth his objections to the route designated, and the said Judge may, if he considers sufficient cause therefor exists, appoint three disinterested persons, one of whom must be a civil Engineer, Commissioners to examine the said proposed route, and after hearing the parties, to confirm or alter the same as may be consistent with the just rights of all parties and the public, but no such alteration shall be made except with the concurrence of the Commissioner who is a civil Engineer. The determination of the Commissioners shall, within thirty days after their appointment, be made and certified by them and the certificate filed in the office of the Clerk of the Peace for the said County. The said Commissioners shall be entitled to the same fees as Arbitrators, and such fees shall in the first instance be paid by the person applying for their appointment, but if the proposed route is altered or changed by the Commissioners, the Company shall refund to the applicant the amount so paid.”

The Bill was read the second time on Friday 18th inst., and referred to a Special Committee consisting of Hon. T. B. Parlee, Messrs. Meredith, Clarke, (Wellington), Creighton, Murray, Clancy, Morin, Hudson, Leys, Preston and Wood.

Stock Jobbers at Work.

The following appeared in the New York Tribune on February 1st:

THE CANADIAN PACIFIC BLOCKADE—TRAINS STOPPED BY SNOW, ETC.—DEAD ENGINES ABANDONED IN DRIFTS.

(Special.)

MONTREAL, Feb. 17.

“The Canadian Pacific Railway has been completely blockaded with snow for the past three weeks. It has been impossible to obtain exact information in regard to the extent of the obstruction, for everyone connected with the management preserves the closest reticence, but so far as can be learned from careful inquiry, the blockade is practically complete. The road west of Winnipeg has been blocked for twenty-three days, and especially in the Selkirks and west of Calgary. The snow sheds there have failed to afford protection in consequence of heavy land slides which have demoralized them in several places. The portion of the road running through the

Fraser river valley is blocked by snow and rock and landslides. For some time the Fraser river has been frozen up at the mouth, so that vessels could not reach Vancouver Island. To add to the difficulties of the company the supply of coal at many points has been exhausted, and the blockade prevents stocks from being replenished. It is reported that a large number of “dead” engines have been abandoned in the Selkirk range on both sides of it. General Manager Van Horne is at Huron, or rather he expected to arrive there yesterday; he started with a party of gentlemen who wished to go over the line, but on account of the obstructions to travel, they backed out, and he finally went on alone. He is making strong efforts to open the railway in the course of the next few weeks, but it is believed to be doubtful if he will be able to run trains regularly much before the first of May. In substance it appears that the whole line west of Winnipeg, and perhaps from that place east to Port Arthur on Lake Superior, is blocked with snow.”

The same day Mr. Van Horne sent the following telegram to the Tribune:

MONTREAL, Feb. 18, 1887.

To the New York Tribune, New York.

The special telegram from Montreal in this morning's Tribune reported snow blockades, land slides, dead engines, and other difficulties on the Canadian Pacific Railway, is a malicious falsehood from beginning to end. The Canadian Pacific trains are not only running through from Montreal to the Pacific every day, but they are running on time. There is not a dead engine on the line, and not a foot of it is blocked, nor is there any shortage of coal. Only one blockade has occurred during the entire winter, and the greatest delay to any train by this was ninety hours.

W. C. Van Horne,

Vice-President Canadian Pacific Railway.

The fearful weather of a week ago caused a further block, but this was “raised” with a little more delay than the other. The Canadian Pacific has made as good a record as any other line of equal length.

Legislature Railway Committee.

The following gentlemen form the Railway Committee of the Provincial Legislature of Ontario now in session.—Messrs Allan, Armstrong, Awrey, Balfour, Ballantyne, Biggar, Bishop, Blezard, Blyth, Bronson, Chamberlain, Chisholm, E. F. Clarke, (Toronto,) H. E. Clarke, (Toronto,) Clarke, (Wellington,) Connee, Craig, Creighton, Cruess, Drury, Dryden, Evanturel, Fell, Ferguson, Field, Freeman, Garson, Gibson, (Hamilton,) Gibson, (Huron,) Gilmour, Gould, Guthrie, Hammell, Harcourt, Hess, Hilliard, Ingram, Kerns, Lees, (Lanark), Leys, (Toronto,) Mack, Marter, Master, Meacham, Meredith, Metcalfe, Miller, Monck, Morgan, Morin, Murray, McKay, McLaughlin, McMahon, Nairn, O'Connor, Ostrom, Parlee, Phelps, Preston, Rayside, Robilliard, Ross, (Huron,) Snider, Stewart, Stratton, Towley, Wildfield, Willoughby, Wilnot, Wood, (Brant), Wood (Hastings), and Wylie. Nine members of the Committee form a quorum.

The Railway Service.

It is stated that the general freight agent's office of the Michigan Central will be removed from Chicago to Detroit.

THE total car equipment of the Canada Southern Division of the Michigan Central is 2,446 cars.

THE *Weekly Telegrapher* says:—It would be a happy day for the telegraphic fraternity if every railway company in America would unite in the decree that no man addicted to the use of intoxicating liquors could be employed upon their line of road.

THE *Railway Age* says:—The railways of the United States now constitute one of the effective temperance organizations in existence. Practically they encourage, and most of the companies require abstinence from intoxicating liquors on the part of their 600,000 or more employees. A great and gratifying change in sentiment as well as in practice on this subject has taken place among railway officers and men within a few years. It is a comparatively short time since to be a railway man was considered almost equivalent to being a drinking man, and the officer or employee who refused to drink was hardly considered adapted for his profession. All this is happily changed.

BEFORE the Dominion elections the following circular was issued by the General Manager of the Grand Trunk Railway:—Complaints are reaching me of some of the Company's agents and others in the service, interfering actively in the elections now in progress throughout the country. I desire to remind the staff that it is contrary to the Company's regulations for any one in its employment to engage in canvassing or in the work of influencing votes in favor of any political candidate, and the penalty for disregarding this regulation is dismissal from the service. It is my wish that every one who is entitled to vote should be allowed the opportunity of exercising that right where such can be done consistently with the proper performance of his duty to the Company.

AN American exchange has the following:—The Canadian Pacific Railway Company is an enterprising and progressive concern. Its management is in competent hands, and no opportunity is omitted to fill its ranks with the most experienced and able men to be found. Recently it has been crossing over the line, and enlisting some of our brightest railroaders in its service. It took George Olds from the Missouri Pacific, and made him its General Traffic Manager; then it wanted a Passenger Traffic Manager, and found him in Lucius Tuttle, of the Boston & Lowell; now it has filled the position of General Eastern Freight and Passenger Agent, at New York, by appointing E. V. Skinner, of the West Shore Railroad. The Canadian Pacific is to be complimented upon having secured three such efficient officials.

THE *Weekly Telegrapher*, the organ of the Order of Railway Telegraphers has a sound and thoughtful article under the suggestive heading "Pulling out in the Spring." The article refers to the tendency on the part of young telegraphers to waste their earlier years in "tramping." The *Telegrapher* says:—Many operators become possessed with a wild infatuation to see more of the world, to measure swords as it were with the lightning jerkers away from home, and think that if they can hold down their jobs just through the winter, in the spring they will pull out. When spring comes away they go, work here and there, just enough to earn a living and buy a few clothes, until winter comes, when they will try and pull in until spring. This is usually done about three or four years, when the victim will just begin to realize that that much of his young life has been wasted. Those precious years in which he could have fitted himself for the dispatcher's or even the superintendent's chair, are gone, never again to return. Those golden days are gone forever—wasted. Young brethren, you who have buoyant hopes, or bright anticipations of some day shining in the firmament of telegraphic planets, drop your rambling ideas, your thoughts of pulling out in the spring, and get down to this business seriously.

Mechanical.

It is claimed that a new system of lighting cars by electricity, tested on the Boston and Albany road, has been found thoroughly practical and successful.

MR. FRANK E. PORTER, manager of the Detroit Electrical Works, it is claimed, has a new electrical motor of his own invention which will draw light trains with great speed and at low cost.

AMONG the American patents recently issued to Canadians, as reported by Messrs. Whittlesey and Wright, Patent Attorneys, 624 F street, Washington, is one to George Harvey, Winnipeg, for a car seat, and one to S. Hill, of Allison, a device for operating train switches.

THE Canadian Pacific Co. has notified the corporation of Montreal of their intention to build workshops in the city to cost \$800,000; and the city council agreed to assess the land and buildings at \$125,000 on condition that the company employ in the workshops not less than 500 hands.

ACTING Secretary Fairchild has issued a circular to constructors of passenger cars and steamboats and other persons, throughout the United States, inviting suggestions as to the best methods of building railroad cars and steam vessels, and heating the same so as to prevent loss of life and property by fire. Correspondents are requested to send sketches or drawings of their designs when practicable.]

THE *Car and Locomotive Builder* speaks thus of an important Canadian industry:—The Canadian Locomotive and Engine Company, Kingston, Ont., are doing a good business in locomotive building. Mr. F. D. Child, so well known in the United States as super-

intendent of the Hinkley Locomotive Works, is superintendent of the Kingston works. There is now every prospect that these works will receive permanent support from Canadian railway companies. Most of the engines built yet have been the ordinary eight-wheel American type, but they have built two consolidation engines reputed to be the largest ever built in Canada.

MR. A. S. COYR, of Rochester, N. Y., recently visited the city in the interest of Mr. H. E. Sheppard, patentee of the perfection lamp burner, which is now being introduced to the Canadian public. These burners work upon a principle which has proved entirely satisfactory in actual practice, and the invention is meeting with universal acceptance on the other side of the line. Ordinary wicks are used, but two or three "cones," each with its own wick, are included under one chimney. The effect is to produce a constant draught of air giving, it is claimed, better results than have ever been known before in the way of smokeless and odorless combustion, while at the same time the hard yellow rays are eliminated, leaving a clear white light which burns with absolute steadiness. These burners, it is held, are especially adapted for railway purposes because of the brilliancy of the light and the saving of oil, as well as important advantages given by the peculiar construction of the burner. These lamps are already in use in the stations of the Flint and Pere Marquette Railway and they have been placed in the official car of the road, where they are said to have given the greatest satisfaction. At present the manufacturers have such extensive orders on hand and "in-sight" for the ordinary trade that they have not, as yet, been able to give the attention which the extension of the business railway requires. This, however, they expect to do soon.

In a recent address as President of the British Institutions of Civil Engineers, Mr. Edward Woods stated that the locomotive of fifty years ago contained the essential features of those of to-day, the great improvement wrought having been in constructive detail. The modern engines possess at least four times as great steaming power, coupled with six-fold weights. Compared with a modern locomotive, the "Planet" type of 1832 to 1836 had a weight of $7\frac{1}{2}$ tons instead of 45 tons, a fire grate area of 7 square feet instead of 40 square feet, a heating surface of 300 square feet instead of 1,400 square feet. An almost incredible economy of fuel has been effected. About fifty years ago, for instance, one railway line consumed 11,600 tons per annum, while a few years later, 3,100 tons sufficed for a greater traffic. The tractive power has been increased five fold, and all gradients up to one and twenty are now readily surmounted. Ordinary speeds have considerably increased, yet express and special trains run but little faster. In track-laying a mistake of the early engineers was the use of stone sleepers, making a road so rigid that rails were often broken. Steel has superseded iron for rails, at a present cost of only half that of iron rails in 1870, while the durability is about three times as great.

Benevolent Societies.

"The natural propensity of labor is to unite for its own protection and for mutual assistance and support."

Brotherhood of Locomotive Engineers.

68. London, Ont., meets 1st and 3rd Wednesday evenings in K. of P. Hall, Carling's Block, Richmond St., at 7.30 p.m. S. Mason, C.E., 202 Clarence St.; H. E. Crouch, F.A.E., 498 York St.; Thos. Purdom, Sec. of Ins., 33 Cartwright St. J. W. Kean, Journal Agt.

70. Toronto, Ont., meets alternate Saturdays at 7 p.m., commencing Nov. 6, 1880, at Occident Hall, cor. Bathurst and Queen Sts. Geo. Mills, C.E., and Jour. Agt., 320 Queen St. East. James Christie, F.A.E. W. P. Marks, Sec. of Ins., Richardson House, corner King and Brock Sts.

76. Winnipeg, Manitoba, meets 1st Sunday at 2 p.m., and 3rd Wednesday at 8 p.m., in Engineers' Hall, Main St. A. Kennedy, C.E. 112 Logan St. W. J. Watson, F.A.E., 29 Ross St. L. O. Lemieux, Sec. of Ins., Brandon, Man. D. Moore, Journal Agent, Box 50.

89. Point St. Charles, P.Q., meets alternate Sundays, at 1.30 p.m. F. Payette, C.E., and Jour. Agt., 12 Richmond St. F. B. Lytle, F.A.E., and Sec. of Ins., 136 Congregation St.

118. Brockville, Ont., meets in Merrill's Block, King St., 1st and 3rd Tuesday at 2 p.m. J. Chateau, C.E., and Sec. of Ins., Box 64. Samuel Scott, F.A.E. J. Rowledge, Journal Agent.

132. St. Thomas, Ont., meets every Sunday at 2 p.m., in Engineer's Hall, Acacia Block. S. W. Whitecomb, C.E., box 29. D. Neilson, F.A.E., box 561. Robert Brown, Sec. of Ins., box 561.

133. Hamilton, Ont., meets every alternate Saturday, at 8½ King St. East. Thos. Renwick, C.E., 133 Wellington St. E. Tinsley, F.A.E. and Sec. of Ins., 15 Colborne St.

138. Snow Drift, at Campbellton, New Brunswick, meets first Sunday and third Wednesday of each month, over Alexander's store, Broadway. George A. Sears, C.E., and Sec. of Ins., Box 491. Wm. Bastin, F.A.E., Box 459. A. J. Sharp, Journal Agent, Box 491.

142. St Francis, at Richmond, Prov. Quebec, meets second and fourth Thursdays of each month, at Odd Fellows' Hall. A. Sinclair, C.E., box 36. Geo. F. Howe, F.A.E. J. Wilkinson, Sec. of Ins., box 35.

162. Moncton, New Brunswick. Meets second and fourth Saturdays, in Pythian Temple, Robinson St. Jas. D. McKay, C.E. and Journal Agent. H. M. Stewart, F.A.E. B. C. Gesner, Sec. of Ins.

168. Capital, at Ottawa, Ont., meets 1st and 3rd Sundays in Manchester's Block. 447 Sparks St. D. Kelly, C.E., Rochesterville. Ottawa, Ont. A. J. Barr, F.A.E., 16 Victoria

ave. R. Pigeon, Sec. of Ins., 260 Moreau St., Hochelaga, P.Q. J. Wells, Journal Agent, 672 Wellington Street.

174. Hope, at Port Hope, Ont., meets alternate Saturday evenings. D. Mallock, C.E. John McMahon, F.A.E., box 273. W. C. Allison, Sec. of Ins., Midland, Ont. A. Miller, Jour. Agent.

188. Avon, at Stratford, Ont., meets first and third Sundays each month at 2.30 p.m. Thos. Burr, C.E., Box 337. Alex. Muir, F.A.E. and Journal Agent, Box 337. Jas. Farr, Sec. of Ins.

189. Belleville, Ont., meets first and third Sundays of each month, at 2.30 p.m. Wm. Pratt, C.E., box 1016. Geo. Teale, F.A.E., box 1016. James Brown, Jour. Agt., box 1016. E. Taylor, Sec. of Ins., box 1016.

204. Pearson, at River Du Loup, Province Quebec, meets first and third Sunday at 2.30 p.m., and alternate Fridays at 7.30 p.m. in English School House. C. E. Sawyer, C.E., and Journal Agent. W. Mackie, F.A.E. A. Shickle, Sec. of Ins., Point Levi, Quebec.

240. Point Edward, Ontario, meets first and third Wednesdays of each month. Wm. F. Hall, C.E., L. box 87. James B. Wilson, F.A.E., L. box 87. D. Cameron, Sec. of Ins., Dr. 12.

243. Kaministaqua, at Fort William, Ont., meets 1st and 3rd Sundays at 3.30 p.m. in Smith's Block. Robert Armstrong, C.E., box 243. H. C. Cooper, F.A.E., box 243. Thos. McKee, Jour. Agt.

247. Halifax, Nova Scotia, meets second Saturday and fourth Monday of each month. E. Tobin, C.E., 38 Macara St. Harvey Smith, F.A.E., 15 North St. Fred Carter, Sec. of Ins., and Jour. Agent, Annapolis, N.S.

295. Parkdale, Ont., meets in Week's Hall, Queen St., alternate Sundays at 8 p.m., commencing Oct. 24, 1885. John Neilson, C.E., West Toronto Jet., Ont. J. R. Spragge, F.A.E., 11 Northcote Ave., Toronto. C. Clark Sec. and Treas. Ins., Parkdale, Ont.

308. Nipissing, at North Bay, Ont. Samuel Porter, C.E., C. P. R. John Scott, F.A.E., Box 23.

Order of Railway Conductors.

Div. 13. St. Thomas, Chief Conductor, A. W. Martin. Sec. and Treas. W. H. Ingram.

Div. 15. Stratford, Chief Conductor, Mark Wade. Sec. and Treas., Saml. A. Hurm.

Div. 16. London, Chief Conductor, Adam Douglass. Sec. and Treas., John McAuliffe.

Div. 17. Toronto, Chief Conductor, George Pike. Sec. and Treas., J. H. Hall.

Div. 27. Hamilton, Chief Conductor, John McKay. Sec. and Treas., James Ogilvie.

Div. 29. Brockville, Chief Conductor, W. G. Murray. Sec. and Treas., W. C. Wright.

Div. 47. Winnipeg, Man., Chief Conductor W. T. Hawkins. Sec. and Treas. Jos. Fahey

Div. 88. Riviero Du Loupe, P. Q., Chic. Conductor, S. H. Livessent. Sec. and Treas., Moreau.

Brotherhood of Locomotive Firemen.

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F. P. Sargent, Grand Master
Terre Haute, Indiana

J. J. Hannahan, Vice Grand Master
Englewood, Ill.

E. V. Dehs, Grand Secretary and Treasurer,
Terre Haute, Indiana.

J. J. Hannahan, Grand Organizer & Instructor,
Englewood, Ill.

TRUSTEES.

W. F. Hynes, Denver, Col.

C. A. Cripps, Vincennes, Ind.

A. H. Tucker, Manson City, Iowa.

EXECUTIVE COMMITTEE.

H. Walton, chairman, Philadelphia, Pa.

W. E. Burns, secretary, Chicago, Ill.

F. W. Dyer, St. Paul, Minn.

C. A. Wilson, Jersey City, N. J.

Sid. Vaughan, Toronto, Ont.

Subordinate Divisions in Canada.

5. Charity; St. Thomas, Ont., meets every Tuesday. D. T. O'Shea, box 784, master. J. A. Holman, box 784, secretary. T. L. Hoyt, box 784, financier.

15. St. Lawrence, Montreal, Canada, meets alternate Sundays at 2.30 p.m. T. Clark, 19 Conde St., master. E. Upton, 7 Burgeois St., secretary. T. A. Dickson, 72 Mullin St., financier.

38. Avon; Stratford, Ont., meets 1st and 3rd Sundays at 2 p.m. A. E. Ball, box 318, master. J. Cooper, box 318, secretary. G. Nursey, box 318, financier.

66. Challenge; Belleville, Ont., meets 2nd and 4th Sundays at 2.30 p.m. J. Muir, G. T. R'y, master. C. Spry, G. T. R'y, secretary. J. Logue, G. T. R'y, financier.

67. Dominion; Toronto, Canada, meets 1st and 3rd Sundays at 2.30 p.m. R. Reid, 31 Leonard ave., master. W. C. Farrance, 68 Denison ave., secretary. J. Pratt, 73 Huron St., financier.

69. Island City; Brockville, Ontario, meets alternate Sundays at 2.30 p.m. T. Shields, box 248, master. W. H. Parsley, secretary. S. Bothwell, financier.

117. Beaver; London, Ont., meets 2nd Sunday at 2.30 p.m., and 4th Wednesday at 7.30 p.m. G. Angles, 385 Grey st., master. R. Lister, 140 Colborne st., secretary. S. T. Fletcher, 221 Maitland st., financier.

118. Star of the East; Richmond, Quebec, meets 1st two Wednesdays at 8 p.m., and the last two Saturdays at 3 p.m. J. Kelly, Richmond station, master. G. A. Pearson, Richmond station, secretary. J. Damant, Richmond station, financier.

119. Colonial; River du Loup, Quebec, meets every Wednesday at 8 p.m. G. Finday, Hallow Cove S, Que., master. L. D. Poulin, I. C. R'y station, secretary. W. Carmichael, I. C. R'y station, financier.

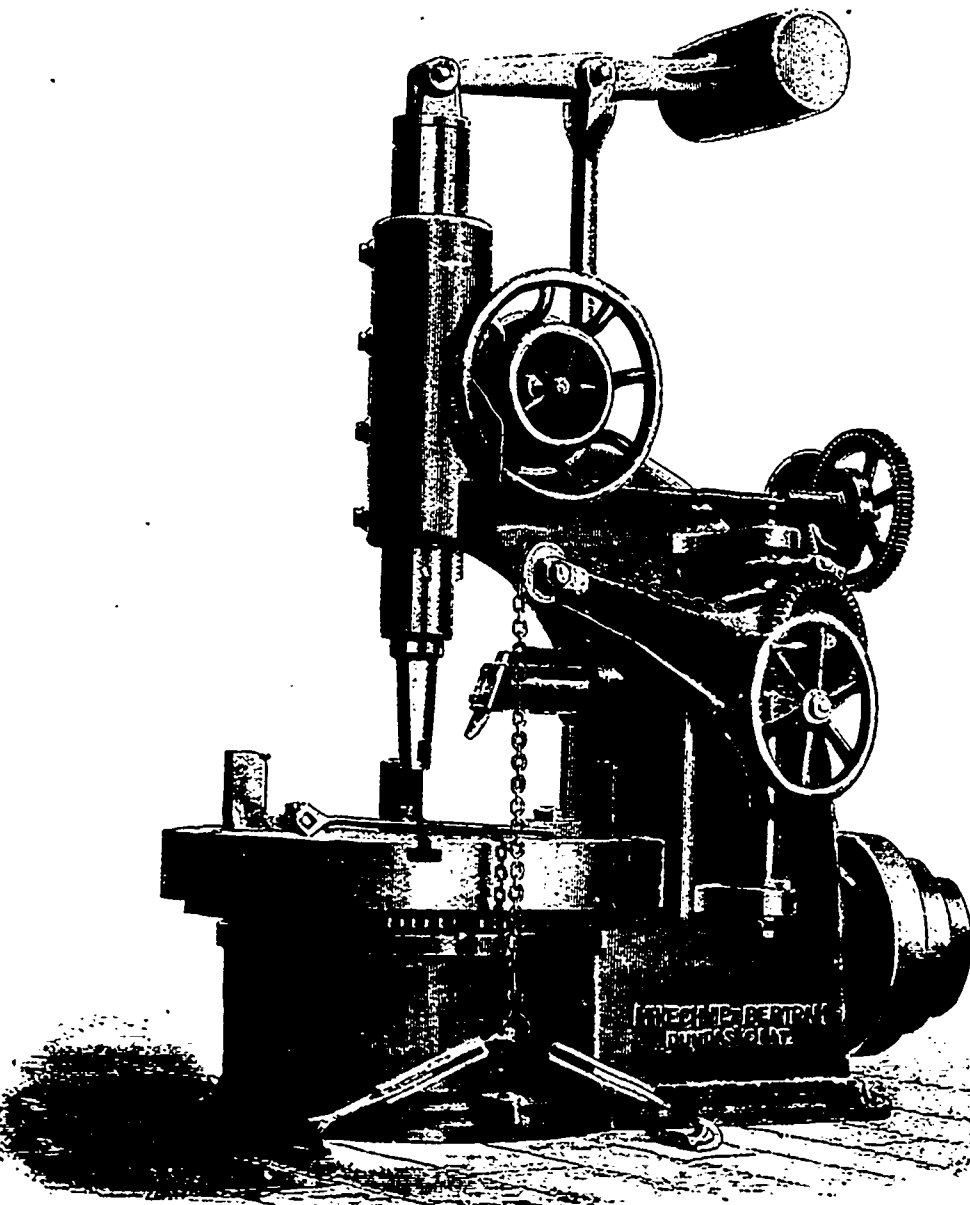
McKECHNIE & BERTRAM,

CANADA TOOL WORKS

DUNDAS, ONT.

Manufacturers of all kinds of Machine Tools and Wood Working Machinery. Our Tools are all made from new and improved patterns and with the latest improvements. A large stock always kept on hand, and those not in stock made at shortest notice. In our list will be found the following:

Lathes,
Planers,
Drills,
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Punches and
Shears,
Boiler Makers'
Rolls,
Slotting
Machines,
Milling
Machines,
Cutting-off
Machines,
Shafting
Lathes,
Pulley-Turn-
ing Lathes,
Wood Planing
and Matching
Machines,
Surface
Planers,
Moulding
Machines,
Morticing
Machines,



Tenoning
Machines,
Band Saws,
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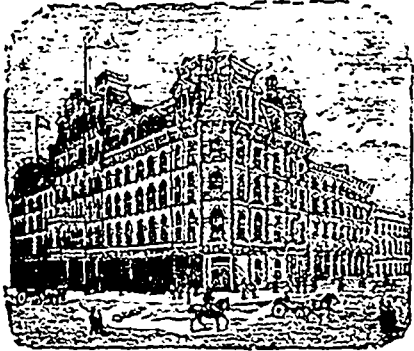
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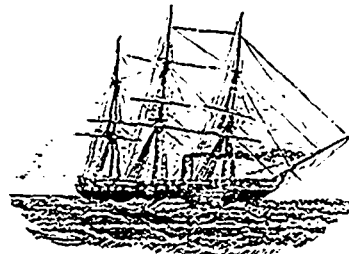
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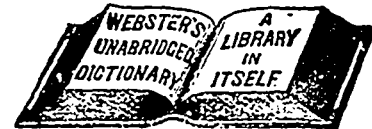
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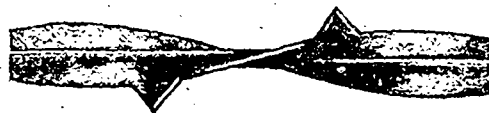
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