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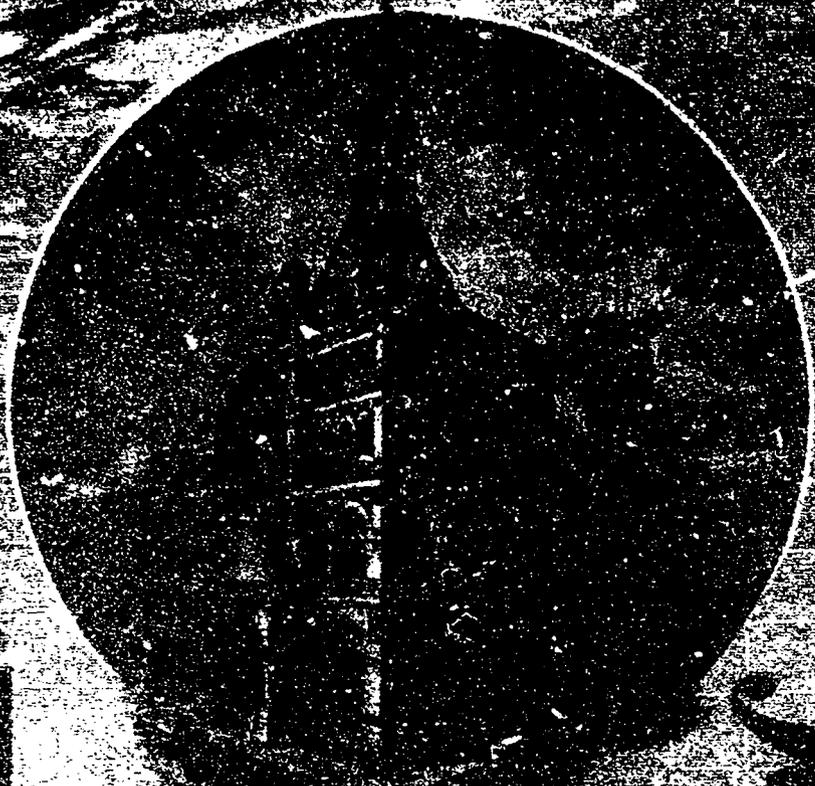
VOL. II. No. 10

OCTOBER, 1887.

Railway
TORONTO, ONTARIO.

WESTERN Assurance Co.

WRITE.



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RAILWAY GAZETTE

A MONTHLY JOURNAL
CANADIAN

DEVOTED TO
RAILWAY INTERESTS

Vol. II.]

TORONTO, ONT., OCTOBER, 1887.

[No. 10.]

CONTENTS.

Railway Items	145
Personal	146
Construction	147-148
Railway Progress	147
The Roadmasters	147
Increasing the Weight of Steel Rails	147
The International Railway Congress	147
EDITORIALS.	
Railway Commissions	148
The Red River Valley Road	148-149
Grand Trunk Report	149
Depew on Speculation	150
Editorial Notes	150-151
The Grand Trunk	151-152
The Canadian Pacific in Maine	152-153
The Canadian Pacific and Toronto	153
Short Cuts to Europe	153
The Inter-State Law	154
St Catharines Electric Railway	154
Shipping Manitoba Grain	154
Issuing Instructions	154
Sung Gould and Sage	154
New Palace Cars for the Grand Trunk	155
Railway Building by Moonlight	155
The St. Catharines & Niagara Central	155
The Railway Service	156
Miscellaneous	156-157
Advertisements	157-160

Six thousand feet of the great tunnel on the Cascade Division of the Northern Pacific have been bored, and it is expected that work will be finished by June 1st, 1888.

The Iron Age says: The condition of the Bessemer steel trade is not satisfactory as could be desired, but it is far from being as demoralizing as would appear from reports emanating chiefly in New York.

The Montreal Elevated Railway project seems to be taking shape. Hon. Louis Beaubien is president; D. Graham, manager, and M. Perrault, secretary. It is claimed for the road that it will be superior to those now used in either New York or Brooklyn; among other things curves could be turned more sharply.

A DESPATCH from Montreal, received as this issue goes to press, states that arrangements have been made for the completion of the Red River Valley Line. Of course this, like most other despatches on the sub-

ject, is already denied on alleged "good authority."

At a meeting held in St Martin's, N. B., to reorganize the St. John and North Eastern under renewal and extension of charter, the following officers and directors were elected: A. F. Kilrain, president; W. H. Rourke, Louis De Bertram, R. O. Stockton, Charles D. Jones; W. E. Skillen, secretary and treasurer.

THERE was an excursion to the end of the track of the Laurentian Railway on the 12th inst. At a lunch served there Hon. Mr. Mercier, premier of the province of Quebec, responding to a toast announced his earnest desire to put Montreal in direct communication with the whole of that splendid back country, extending for hundreds of miles from the Saguenay to the Ottawa, at the earliest possible moment.

A RECENT cable despatch contains the following:—An engineer says the prestige Canada has secured by the completion of the Canadian Pacific Railway is exercising powerful effect on the minds of the Russian government and people. One result is the virtual abandonment of the policy adopted at the beginning of the present government to build no more railway lines. Lines from Siberia to the Pacific are to be constructed, and another is contemplated from Tiflis to Kars.

THE English press generally speaks very favorably of the Canadian route and endorses the action of the government in granting the subsidy. For instance, the Saturday Review says. As far as the carriage of mails is concerned, the advantages of the Canadian route are beyond question. Before long the mails now going through the States will be transferred to Canada, which is a gain from a national point of view. The military advantages of possessing a quick over-land route to the east, wholly within the empire, are even more obvious.

T. A. EDISON, the inventor, and a party of scientists and capitalists lately went to Easton, Pa., and back again to New York on a special train to test the workings of the railway telegraph, by which messages

were exchanged between the moving train and the officers of the telegraph company in New York city. Stock quotations and news of the day were sent from the city to the gentlemen speeding away from town at the rate of fifty miles an hour. The system is now in practical operation on the Lehigh Valley Road as far as Easton.

SPEAKING of the year's railway construction the New York Tribune says—The new building this year has been to a remarkable extent accessory to or preparatory for new settlement. The precise region which is at present growing most rapidly in population, receiving the largest accessions alike from immigration and from the migration of citizens of older states, is that in which more than half the new railway mileage has been completed. Nor is this Dakota-Texas belt insignificant in area. Though it embraces only three states and two territories, it covers 643,645 square miles, about twice the area of all the original thirteen states which achieved their independence.

PROFESSOR SELWYN, Chief of the Geological Survey, has returned to Ottawa after an extended tour of inspection of the field work of the survey, extending to the Pacific Ocean. He first visited the Sudbury section and fully confirms the reports of the large deposits of copper in that region, which he classes as exceptionally rich. He next visited Port Arthur and examined the iron deposits in that neighborhood, where he was shown some splendid specimens. He then proceeded to Lethbridge and was well pleased with the coal found in that section, the quantity and quality of which he considers entirely settles the question of the future fuel supply of the North west. He crossed the Selkirks and Rockies to British Columbia, and describes that region as one vast bed of minerals almost wholly undeveloped, as there is scarcely any mining being carried on in proportion to the immense amount of mineral deposits. Altogether, the Professor's views of the regions traversed by him are of the most satisfactory character, as tending to show the immensity of the undeveloped mineral resources of Canada.

Personal.

SIR GEORGE STEPHEN, President of the Canadian Pacific, will visit England to arrange for the building of three powerful steamers 4,000 tons each for the Pacific Ocean service.

GOVERNOR DEWANEY opened the session of the North West Council on 15th inst. In his speech he expressed much pleasure at his trip over the Canadian Pacific to the coast, and is grateful at the opening up of a market in the west for staples produced in the territories.

MR. J. K. AGNEW (a former Londoner), Superintendent of Chicago & West Michigan Railroad, has declined the offer of Superintendency of the Toledo, St. Louis & Kansas City Railway, made him by President S. R. Callaway.

MR. F. M. BELL SMITH, of the Royal Canadian Academy of Artists, London, returned home recently from a two months' sketching tour in the Rockies. He brought back with him studies enough to make work for him for two or three years. Tourists who passed through the mountains while he was there have given him orders for \$3,000 worth of pictures, to be elaborated from the sketches which they saw, among the number Lord Elphinstone, Earl Kinnaird, Lord Raymore and others.

THE annual meeting of the Ottawa, Waddington & New York Railway & Bridge Co., directors and stockholders was held in the Russell House, Ottawa, recently. The resignation of the Hon. Jas. Redington, of Waddington, president of the company, was read. Mr. Redington said that owing to advancing age he was compelled to take this step. His age is 77 years. The directors emphatically deny that application has been made for a new charter as the present charter is amply sufficient for all purposes. This is what is termed the Fairling Board.

MR. C. E. MACPHERSON, formerly city passenger agent of the Canadian Pacific at Montreal, has been appointed district passenger agent for the same line for territory covering Quebec Province east of the city of Quebec, the Maritime Provinces and the States of Maine, New Hampshire, Vermont, Massachusetts and Rhode Island. Mr. Macpherson removed to his new headquarters at 211 Washington Street, Boston, early in the month. The appointment is in accord with the policy of the Canadian Pacific of choosing the very best men for the great centres of business. By faithful service in the positions he has hitherto occupied and by exceptional ability shown in the discharge of his duties, Mr. Macpherson has proven himself competent to fill a larger field, and the opportunity to extend his powers has been given him. A host of friends in Canada wish Mr. Macpherson a continuance in his new sphere of the success which has hitherto been his, not doubting that if his health is spared he will continue his rapid progress toward the top of his profession.

Construction.

THE Fredericton bridge will soon be completed. At present contractor Hogan is disbursing \$1,000 a day on the erection thereof. The bridge will be a fine structure.

THE Lake Erie, Essex & Detroit River line is being surveyed from Walkerville to Leanington, Ont., 39 miles, and construction work will be soon begun. John McAfee, of Hutton, is Chief Engineer.

MR. I. M. ROSS, of Grant & Ross, contractors for the Port Arthur & Duluth road, upon which operations have commenced, states that about 120 men and seventy-five teams are at work grading. The contract called for the completion of the road by next August. The line would run west of the C. P. R. tracks for some thirteen miles, when it would cross it at Murillo, and take a southeastern bend. The grading of the first twenty-five miles, Mr. Ross says, will be somewhat light, but after that the work will be heavier. The present contract is for the building of eighty miles, which will take the road to within about twenty miles of the boundary. The Iron Range road runs up from Duluth to the boundary, and it is said to be probable, when the Canadian line is constructed, that a link will be built to connect the two.

THE car construction works of the Rathbun Company, Deseronto, Ont., established for the purpose, in the first place, of building stock for the Napanee, Tamworth and Quebec road, have been considerably extended and are in a position to execute orders from others as well. Some cars are now being turned out for the Canadian Pacific.

THE contract for a thirty-mile extension of the Duluth and Iron Range northerly from Tower City into the mining district has just been let to Shepard, Winston & Co., to be built immediately. This is only a part of the ultimate extension of this line, which is expected to reach to the boundary, and there connect with the Port Arthur and Duluth, a part of the Canadian Pacific.

MR. HUGH RYAN, in an interview in Montreal, hints that the Red River Valley road will be completed next spring under an arrangement between the Dominion and Manitoban Governments. The Statist foreshadows an early surrender or commutation of the monopoly clause.

To show to what an extent steel is taking the place of wood in the matter of railroad ties in some of the foreign countries, it may be mentioned that one Welsh steel works is now executing a single order for 280,000 sleepers to be used on the East India State Railway. There, as in many of the other eastern countries, it is not the scarcity of wood which makes the use of steel sleepers necessary, but it is on account of the ants and other insect pests which make the use of wood almost impossible.

THE *Winnipeg Morning Call* says:—The conviction is very strongly impressed upon the mind by the course of events that the Red River Valley Railroad will not be completed in time to handle this year's crop. In fact, operations are practically suspended for the season, and are not likely to be resumed until next spring. The situation is a very unfortunate one, more particularly as it appears to have been brought about by errors in judgment. But it must be taken as it is. What the next move will be remains to be seen.

THE *Ottawa Journal* says:—The operations on the line of the Gatineau Valley Railway will be concluded for the season as soon as the snow renders it impossible to go on with the work. The work of construction is now being vigorously carried on in the vicinity of the Pêche and it is expected that ten miles of the road will be completed this fall. Mr. Beemer intends to begin the work of construction again as early next spring as is possible and it is more than likely that the line will be completed to Wakefield before the close of next season.

THE Canadian Pacific has completed the purchase of property on the Esplanade in this city for the building of their direct line in from the east and the construction of their great central station. The principal cause for delay now, if not the only one, is that the City Council has decided to extend the wharf frontage further out into the Bay, but has not decided upon a line for the extension. The Canadian Pacific representatives have asked the City Council to declare where the line is to be, so that operations may be begun upon the necessary piling.

THE Railway Committee of the Privy Council on 25th inst., heard the case of the City of Toronto v. the Grand Trunk Railway with reference to putting gates on both sides of Simco Street, and also at the York Street entrance to the Union Station. Mayor Howland presented the case for the city, and was followed by Mr. Bell, Grand Trunk solicitor, who admitted that the crossings were dangerous, but held that the streets should be closed by the corporation, which view was sustained by the committee, and an order was accordingly made that the streets should be closed.

IT is understood that a company represented by Mr. Greathead, C. E., of London, Eng., who is at present building the London and Southwark subway, have made a proposition to the Dominion Government to complete the subway across Northumberland Strait, dividing Prince Edward Island from the main land. The proposition is to take the P. E. I. Railway off the hands of the government and operate it on a tariff to be approved of by them, and also a subsidy of \$200,000 per year for fifty years. Mr. Walter Stanley, C. E., has already favorably expressed his opinion as to the feasibility of the scheme of travelling under the strait. In connection with the scheme, an announcement is made for the first time of the immense advantage to be obtained from this new scheme in making a direct line to the seaboard by running trains over the short line and utilizing the subway

and the Prince Edward Island Railroad to Georgetown, thereby making a saving of no less than 372 miles of water passage and twenty four hours of time in a passage from Montreal to Liverpool.

Railway Progress.

Just at present a falling off in the demand for steel rails and other supplies for new railroads is reported, although all the rail mills and other works are very busy on orders which will require some months yet to fill. Those who watch the markets closely, also report that new railroad securities are now not taken up at all by investors.

As has been heretofore noted, the building of new railroad lines this year will probably reach nearly, if not quite, 12,000 miles. The construction of so great a mileage requires the investment of an enormous sum of money, and a large part of the surplus capital available for such purposes has probably been already invested, and its owners are inclined to wait and see the result before putting in more. Then, again, the immediate demands of traffic will be pretty well satisfied by the new lines now under construction, and there is not much disposition among the investing public to put their money into purely speculative railroads, in view of the events of the past few years.

There are quite enough of these speculative railroads building as it is, and a condition of affairs which will prevent the undertaking of more is not an unmixed evil. The speculative road is usually not only a waste of money in itself, but it is also a hindrance to legitimate enterprises which would really benefit the country.—*Engineering Journal*.

The Roadmasters.

At the meeting of the Roadmasters' Association of America, on 11th inst., Mr Charles Latimer, Resident Engineer of the New York, Pennsylvania & Ohio, delivered the opening address. In the course of his speech Mr. Latimer said:—

You represent for the most part men who, from sheer force of adaptability of fitness, education and strength of character, have been raised to the position of guardians of the track of our great railway system; men who did not crawl in through the cabin windows, but came through the hawse hole, i. e., not by favor, but by work, selected for position because it was necessary for the safety of the travelling public that the most capable should be appointed. Whatever favoritism may do to advance others, the only touchstone for the position of roadmaster must be *fitness*, so that he stands independent; he can say, "I am roadmaster because I was faithful and worthy of my place." Only railroad men can understand the serious responsibility of the position, and as one of you, with responsibilities resting on me, I fully sympathize with you in all your aims for improvement and true advancement exhibited by this gathering.

I have said that these men were faithful; let me point to your branch of the railroad ser-

vice in these days of agitation, such as has not shaken the earth in the memory of modern times, as consisting of men pre-eminently faithful. We all remember 1877, the year of the railroad earthquake, as we may call it. While the whole transportation departments of several great systems threw down their tools and struck, the trackmen remained steadfast and no manner of intimidations nor persuasions could move them from their allegiance to their duty. They said "The track is the foundation of the whole structure, and if that goes what will become of the structure?" A remarkable situation was presented subsequently with circumstances the same as those of 1877. Your forces have remained true and firm to their trust amid many grievances. Your counsel must have been good, your influence strong and your loyalty tried to the uttermost. Your conservatism is most praiseworthy, most thank-worthy, as we look upon the millions spent to override the laws of our country.

Increasing the Weight of Steel Rails.

GRADUALLY the managers of our great trunk lines, at least, are reaching the conclusion that the rapid increase in the weight of rolling stock calls for heavier rails. The vice president of the Pennsylvania railroad, after examining English track superstructure, expresses the opinion that, "while the track superstructure of the American railroad is heavy enough for perfect safety, it is too light for economical maintenance, and that in the weight of rails and fastenings we have hardly kept pace with the increased weight of locomotives and cars." While a few of our roads are acting on this conviction, and are slowly equipping them with heavier rails, the vast majority of them, notably in the west, south and southwest, have remained indifferent, and some are not even within the limits of safety. Orders for 50 to 56 pound rails for great lines of railroad even at this time are so common that they do not even cause comment. If rails so light were used only on feeders, on which light trains at low speeds run at rare intervals, there would be little danger, and the question of economy might be doubtful, but they are laid down on roads which boast of "steel rail tracks" and fast service. Formerly those who built railroads for the sake of making money on the construction found that all that it was necessary to state to those who took the bonds that steel rails has been laid. Now capitalists are more wary. They want to know the weight of the rails. This is carrying the average up to 56 and 60 pounds, but as yet the scrutiny alluded to has not become general. It is not surprising that with light rails there is talk of poor quality, of the rapidity with which renewals are called for. In their hasty rush for new territory the first consideration appears to be to get along with as little weight as possible. This false economy is likely to prove dangerous and costly in the long run, and the sooner and more generally that fact is appreciated the better. To the steel industry of the country this means a heavy addition to the natural and steady demand for renewals which comes from the enormous expansions of our railroad mileage.—*Iron Age*.

The International Railroad Congress.

The Railroad Gazette says: The second session of the International Railroad Congress is now in progress at Milan. In view of the extent and importance of this body, it is well to prevent some of the points of their scheme of organization which is presented for consideration at this session.

It is stated first that the object of the Congress is to promote the progress of railroads. It is to be composed of governments as well as companies owning or working railroads. For executive purposes the Congress is represented by an International Commission, the headquarters of which are at Brussels, and the members serve without pay. The duties of this Commission are to designate questions for discussion, to prepare studies of these questions, to secure the publication of the proceedings of the Congress and of papers and discussions and to administer the finances of the Congress. This Commission is composed of a president, five vice-presidents, one secretary and twenty-two other members, and the members are chosen so far as possible from different nationalities and companies, and in no case shall more than nine members be of the same nationality.

The executive committee of this Commission is to hold quarterly sessions and can be called by the President or various members for extra sessions. The Congress is to sit every two years. Those who have a right to sit in the Congress are members of the International Commission, delegates designated by members of the Congress, and the secretaries and treasurer of the organization. The governments are empowered to fix the number of delegates whom they will send, but railroad companies can be represented by delegates only in proportion to the extent of the systems which they control.

At each session the Congress is to be divided into various special sections to consider the subjects, for example, of permanent way and works, of rolling stock and material, of operation, of general administration, etc. The discussions will be held in French or in the language of the country where the Congress sits, and the records will be kept in French. The expenses are to be paid by assessments, and by such special subsidies or other aid as may be received. The assessments for governments will be fixed by the governments themselves. Railroad companies will pay 100 francs minimum and an extra sum proportional to the extent of their systems.

The provincial list of delegates to the second session includes representatives from the governments of the Argentine Republic, Austria, Hungary, Belgium, Brazil, Bulgaria, Denmark, France, Great Britain and India, Holland, Italy, Mexico, Portugal, Roumania, Servia, Sweden, and Norway, and Turkey. Those nations which have state railroads also send delegates to represent them, and there are some 120 private corporations represented. The only representative from the United States announced in this list is Mr T. N. Ely, of the Pennsylvania.



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Correspondence invited. Write on one side of paper only, and be specially careful with names and dates.

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. H. CAMPBELL, & A. C. CAMPBELL, Publishers.

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TORONTO, OCTOBER, 1887.

RAILWAY COMMISSIONS.

In an interview with a Toronto *Globe* reporter Mr. Moberly, member of the Railway Commission, is represented as saying, that the visit of himself and Mr. Burpee as a delegation of the Commission to the United States, led to their being impressed very favorably with the working of the Inter-State Commerce Law and the interpretation of it by the Commission of which Judge Cooley of Michigan is the head. There can be no doubt that the moderate course taken by the American Commission has almost entirely dissipated the fears which at one time existed of disastrous results to follow the carrying into effect of the law, and it is hardly to be wondered at that Mr. Moberly was favorably impressed with the existing state of affairs. The establishment of a commission on the other side of the line must modify to a considerable extent the opposition of many to a commission in Canada, for the great fear was that it would be ruinous to Canadian railway interests to allow the imposition of higher rates on through

traffic than were charged on the through lines of the United States. There is no reason why a commission of Canadians should not show equal good sense in our affairs with that which has marked the course of the American Commissioners, and if this was done, the railways of Canada would not suffer more than the railways of the United States have already done. This is not necessarily an argument in favor of establishing a commission in Canada, but there are two facts which always have been in favor of that view and, in our opinion, in the changed state of affairs since the proposal for a commission was last before Parliament, should be regarded as more important than they were at that time.

The first of these is that a commission is a protection to railway companies against one another. The increased competition of the two great railways of Canada must necessarily lead to dispute and litigation as also are the extensions of both likely to lead to difficulties with smaller companies. A bench of experts in railway law and practice devoting their time wholly to the consideration of the intricate problems arising out of the present condition of railway affairs would be more likely to give definite and satisfactory judgments upon these questions than any ordinary judges possibly could.

Again the tendency toward Government control, as we have previously pointed out, and as indicated elsewhere in this issue, is growing. Such control, we believe, would be an unnecessary addition to the Government's functions, and injurious to the public interest. But many things injurious to the public interest are carried through legislative bodies as the result of public clamor against some real or fancied evil simply because nobody comes forward in time to propose the true remedy. It is, in our opinion, more than probable that if the growing public desire for fuller public control over public corporations such as railways is not met in some way, the result will be that public ownership and management of these institutions will be demanded with such vigor that legislators will be found some day weak enough to enact the law necessary for carrying out such a change. The great objects to be achieved in railways are enterprise and careful management together with consideration of the public interest. This can best be achieved by

leaving the management in private hands with proper powers of check in the hands of the representatives of the people, or in other words, a public commission to arbitrate on fixed lines between the public and the companies. We notice that in a recent interview Mr. Chauncey M. Depew, President of the New York Central, while opposing government ownership of the roads, expresses himself heartily in favor of government checks and supervision. This we take as strong reason for believing that the giving of full weight to legitimate public interest in the management of railways will result beneficially to the roads themselves rather than otherwise.

It is not improbable that the present Commission which is to "investigate and report" on this subject will advocate the appointment of a permanent commission and, if this is done, there will be many who will advocate that side of the case who previously were indifferent or even hostile to the plan.

THE RED RIVER VALLEY ROAD.

GREAT as was the complication caused by the attempt to build the Red River Valley Railway, it was as nothing to the confusion worse confounded which has arisen since the abandonment of the work for the present season. To present even a summary of the "facts" brought out in the public press on "undeniable authority," by alleged interviews with public men, proceedings in public courts, and otherwise, would require far more space than we can give, even to so important a subject. To attempt to follow the charges, countercharges, and wonderful, legal, political and economic discussion, which have taken place within the month, would be a still more hopeless task.

There is no doubt, however, that the work has been suspended with every probability of not being resumed this season. The reason given by the Manitoba Government for taking this position is inability to raise the funds necessary for carrying on the work. It is to be supposed that, before yielding to this humiliating, not to say disgraceful necessity, the Government of Manitoba sought by every means to proceed with the work, so that when the facts are all out it will probably be found that some almost desperate make-shifts were resorted to. While on this question of

funds it may be instructive to notice the effect which this failure, on the part of Manitoba, may have upon the provincial credit, as well as upon the credit of the whole Dominion. Is it not a disgraceful thing that a province of free-born British subjects, wanting a paltry few hundred thousand dollars, cannot raise that amount on its credit? It will be said of course that there was doubt of the strict legality of the bonds it was proposed to issue. But this could easily have been got over by an undertaking to issue securities which should comply with the letter of the law in every respect. If the Dominion of Canada wanted money, would the people be satisfied that failures should be recorded because of some technical defect of this kind? There may be reason, and there doubtless is reason, from the point of view of many good men deeply interested in Manitoba's prosperity, to be glad that the money was not raised and that work on the road has been suspended. But there could not have been a more unsatisfactory ending of this dispute. If there is a principle at stake it should be fought out to the end and decided on reasonable grounds. If there is no principle at stake and it is simply a question whether an existing road shall have a competitor, the putting of a province to shame for such an end as has been reached is not a desirable thing.

The latest effort to raise money has been by the issue of \$300,000 of bonds at par, to be taken up by the people of Winnipeg.

The following resolution of the Winnipeg city council explains the situation on this point up to a recent day :

Moved by Ald. Riley, seconded by Ald. A. Macdonald, "that in the event of a satisfactory assurance being obtained from the local government that the sale of the \$300,000 treasury bonds, now under offer, will enable them and that they will at once complete the R. R. V. R., and one half of the issue being already subscribed for by the public, this council would recommend to the trustees of the city sinking fund the advisability of purchasing \$150,000 of the bonds, and approve of the finance committee taking such steps as may be necessary to pay the amount due from the city to that fund, and that his worship the mayor, the mover and second be appointed to confer with a committee of citizens and others interested in building the said railroad and wait upon the government, with a view to obtaining the assurance above referred to.

It would be taken for granted by most people that it would be a simple matter to arrange with the government either for the taking or refusal of the bonds according as the "satisfactory assurance" required was given or otherwise. But, according to the *Manitoba Free Press* (hostile to the government), this is what took place after an appointment had been made by the government to meet the committee, at a time when the "results of other negotiations then pending would be known":

Friday, accordingly, Messrs. Ashdown and McDonald again returned to confer with the Ministers, when they found that Hon. Dr. Harrison had broken his appointment, and had fled to the country, Hon. Dr. Wilson had also disappeared, Mr. Norquay had taken the train east, the attorney-general was in the midst of hasty preparations to follow him, and Mr. La Riviere was not present at his office. A conference was therefore impossible, and Messrs. Ashdown and McDonald were thoroughly burked in the attempt to negotiate the purchase of the bonds.

This is a thoroughly wild western way of doing business. What our fellow citizens out there are going to do about it has not yet come out. It looks, however, as if all efforts to arrange for a resumption of the work this season would be unavailing, for the premier, Mr. Norquay, is at Quebec attending the Inter-Provincial Conference and nothing can be done in his absence.

In the meantime there have been hints and rumors and "authoritative statements" that this, that, and the other firm of contractors is ready to undertake the work in return for the bonds of the province. What truth there is in these allegations cannot be definitely ascertained. What the other negotiations are, of which the Ministers spoke, is also a mystery.

Those who contend for a principle in this question can have no feeling but one of disgust that the matter has ended as it has. Every point of difference which existed has been left as it was before, to be revived next season with all the accumulated bitterness of party and personal strife, senseless side issues and clap-trap appeals to sentiment and passion, while in the meantime public confidence is disturbed and a most unfortunate cause of disturbance left to add to the rancor of politics. There are certain plain questions to be asked and answered, all of which are fairly open to discussion and on none of which, in our

humble judgment, can any one, even the greatest lawyer or economist in the country, afford to dogmatise:

Has the Canadian Pacific Railway a legal right to monopoly in the North-West, including Manitoba according to the old boundary?

Is it in the interest of the country that the monopoly should be maintained by the Dominion Government?

Has the Dominion Government a constitutional right to disallow charters of railways to the boundary in "old" Manitoba?

Has the Province of Manitoba a constitutional right to charter railways to the boundary to connect with lines from the South?

However it may suit certain interests to have a settlement of these questions postponed, it is in the interest of the country at large, and especially of the great railway interest, to have them set at rest by appeal to the proper tribunal, whether it be court, parliament or people.

Doubt, misunderstanding and agitation are injurious, not helpful to railway interests.

THE GRAND TRUNK'S REPORT.

THE report of the Grand Trunk Railway for the year ending 30th June last is in every respect one calculated to give the greatest pleasure to the friends of the Company and of Canada. Greatly increased gross receipts accompanied by great economy and comparatively little increase in the working expenses leave a net revenue balance of no less than £553,353. The net traffic receipts are more than 25 per cent better than those of 1885, and almost ten per cent better than those of 1886. The net receipts would have been much larger but for the heavy expenses of snow clearing caused by the severe weather of the first two months of the year.

The results show the immense reservoirs of traffic and revenue upon which the Company can draw and give a good idea of the recuperative power of the enterprise. The prospect of a report for the current half year quite as satisfactory as this is exceedingly favorable, for there probably never was a time in the history of the road when the traffic has for so long a period been so heavy all over the system.

DEPEW ON SPECULATION.

THE newspapers have been vigorously discussing questions arising out of an alleged interview with Mr. Chancey M. Depew, President of the New York Central. This is a part of what Mr. Depew is said to have said and fairly summarises the whole:

The real estate craze, and the craze to build railways where there is nothing for them to haul, have been the direct cause of more financial disasters in this country than all else put together. However, the coming trouble will be discounted before it arrives, otherwise no enterprise could survive the shock. Nearly all the older and stronger business establishments of the country are becoming more and more conservative, and because they are the country will have safe and substantial rallying points, and hence the greatest damage will fall upon those who have invested their all wholly in prospective real estate equities and worthless railway securities, but the shock will be felt more or less sensibly in all business plants.

It says a great deal for the solidity of the present state of affairs that such a bearish declaration attributed even to so prominent a man and so high an authority as Mr. Depew caused so little excitement. However, enough trouble was caused in some quarters to make some further announcement from Depew necessary, consequently a second edition of the interview was put out in the form of a despatch from Mr. Depew himself to his private secretary as follows:

"Your message received. I said nothing about a panic or cyclone. I commented on the fact, known to everybody, that the real estate boom in the towns had been pushed too far and there had been considerable railroad building, paralleling old lines which would be unprofitable. On the other hand the business activity all over the West and North-West is phenomenal and healthy. A personal and careful inspection of each of the Vanderbilt lines and 5000 miles of track showed the highest degree of efficiency and a condition to both lower operating expenses and work a very long time on little expenditure if it became necessary. The financial condition of our lines was never better, and their prospects for earnings and dividends never more sure. This applies to the lines both east and west of Chicago."

This is decidedly unsatisfactory. In his second and authoritative utterance Mr. Depew simply disclaims the title of alarmist, mentions one fact to cause uneasiness and others to give a contrary impression and there leaves the matter. Nobody said he was an alarmist and nobody disputes the facts he quotes. The question that the public are most anxious to be informed upon is what the

future is to be, and it has a right to expect Mr. Depew and others in like position either to say nothing or to say the best of what they think and say it in a clear way.

In the meantime it would be safe for the public to "go slow" and not to take any unnecessary chances, seeing that the men supposed to be on lookout are not giving clear warning as to what is ahead of the good ship of trade. Speculation has undoubtedly been overdone in the West and other places and when the boom flattens out, as it must some day, the man will get along best who is nearest to shelter.

Editorial Notes.

THE text of the important speech of Sir Henry Tyler at the last meeting of the Grand Trunk comes to hand too late to be dealt with at length in the present issue. There are some points in it, however, which will call for attention next month.

THE directors of the St. Catharines & Niagara Central believe that if they can secure running powers over the Burlington Canal bridge they will have overcome the only serious obstacle on the road to Toronto. If this line were completed it would go far toward securing the rapid transit between Buffalo and Toronto which is so much to be desired.

ALL the contractors on the Grand Trunk double tracking work are making good progress and it is expected that all the sections will be finished within the specified time. The work has been carried on under special difficulties owing to the heavy traffic on the line while double-tracking has been going on. The casualties during the progress of the work have been exceedingly few, considering the hazard involved in carelessness of many of the workmen themselves and the constantly passing trains.

AT the meeting of the Association of North American Railroad Superintendents, held in New York on 10th inst., attention was called to the fact that officers on some roads performing the duties of superintendents have other titles, and a proposal was made that

steps should be taken to bring about uniformity in this respect. But it was decided without much discussion that it would be too great a task to undertake. Desirable as uniformity in this respect, may be, the association undoubtedly took the right view of the situation.

THE Beauharnois Junction line, which is the Grand Trunk extension westward from Montreal south of the St. Lawrence River, will be opened to the town of Beauharnois, one of the principal centres of the district, about the 15th of November, and is expected to be completed to Valleyfield by the end of the present season. This line will serve an exceedingly rich and prosperous district, and will be an important feeder to the main line.

THE Grand Trunk line to Fort Covington & Massena Springs, N. Y., to connect there with the Rome, Watertown & Ogdensburg, will furnish a new through connection for a very considerable part of Northern New York, the railway facilities of which at present are not by any means what they might be expected for so wealthy and progressive a community. The road is nearly ready for traffic and the trains will be running over it by the end of next month.

THE car stove question is still agitating the people of the United States and the approach of another winter without any definite and concerted steps having been taken for improvement has set the editors and the humorists to work again upon the subject. There are a dozen other causes leading to far more loss of life than the car stove, which should rather engage public attention, on the principle of "the greatest good to the greatest number." Still it is much better to remedy even the minor ills than to leave all unremedied, and it is to be hoped, therefore, that the efforts now being put forth to bring into general use some safe system of heating will meet with early and complete success. The *Railroad Gazette* publishes a summary of facts, so far gleaned, from which it appears that many lines have adopted, or are experimenting with systems believed to be better than the present, which is practically no system at all. The Martin system seems to be the one most in favor.

It has not taken long for the first step to be made toward the verification of the prediction we made two months ago regarding the coming of an agitation for handing the railways over to the control of the Government. Already the New York *Herald*, which, after all, said and done, is the most widely influential newspaper in the United States, has declared in favor of such a course. The George party, in whose revolutionary platform this is only a minor plank, are making progress which must undoubtedly carry consternation among the politicians. Their campaign is only a year old and the very lowest calculations that their opponents make of their strength is 80,000 votes in the state—more than the prohibitionists are likely to get after twenty years political work. The George men talk with confidence of carrying Brooklyn and probably New York City, with a fair chance of carrying the whole state and a certainty of being at least second in the race. Split the difference between their own estimates and those of their opponents, and allow them one hundred thousand votes out of the half million that will be cast in the state. Is it not reasonable to believe that many of these votes will be not in favor of the land tax theory but in favor of government control of railways? And isn't it reasonable, moreover, that there are many in each of the old parties who believe in government control of railways, but who do not vote with George? What more natural than that the party which fails this time should offer government control of railways as a means of catching public favor? The struggle is coming and it is coming very soon.

The Grand Trunk.

A DISPATCH from London announces the issuance of the half-yearly report of the Directors of the Grand Trunk Railway of Canada:

The gross receipts for the half year ended June 30th are £1,692,853, compared with £1,557,040 for the corresponding half of the previous year. The working expenses are £1,185,955, compared with £1,097,714. The net receipts are £506,898, compared with £459,326. Adding the amount received from the International Bridge Company (£14,467), interest on Chicago & Grand Trunk bonds (£14,348), interest on Wellington, Grey & Bruce bonds (£6,121) and the balance of the general interest account, the net revenue receipts reach £553,353, compared with £494,633. From the total revenue receipts £415,576 has to be de-

ducted, leaving the net balance to the half-year's working £137,777. This amount, added to the balance of £811 from the last half year, makes the total £138,588, which provides for the payment of the full half year's dividend on the 4 per cent guaranteed stock, amounting to £104,395 and a dividend on the first preference stock at one pound per cent for the half year, amounting to £32,149, leaving a balance of £2,043 to be carried forward. A comparison of the June half of the years 1887 and 1883 shows that whilst the gross receipts were less by £141,335, the working expenses were reduced by £136,263, the net traffic receipts of the last half year being thus within £5,072 of the net traffic receipts of the June half of 1883, the most favorable June half year since the fusion of the Grand Trunk and Great Western Companies.

There was an increase of 201,847 passengers carried compared with the June half of 1886, the increased receipts being £470,820. Since 1883 the average fare per passenger has been reduced from 5s. 4d. to 4s. 0½d. Freight and live stock traffic shows an increase during the past half compared with the June half of the previous year, of 332,225 tons. The receipts were £85,529, being the largest in any June half in the history of the company, extending to both local and through traffic. The working expenses of the past half were increased by £88,241 as compared with the last corresponding half year, while the gross receipts were increased by £135,812. The number of passengers and the tons of freight of live stock are greater than in 1886 or in any previous half. The removal of snow in January and February cost £15,037. The total cost of snow clearing for the half year was £21,939, being £7,800 more than any preceding half during the past four years. The increase of engine miles run was 762,347, while in spite of the bad weather the working expenses increased only 8.05 per cent. The charges to capital account during the half year were £44,627. The principal items were £17,455 for new works, including £11,198 on account of the new station in Montreal, and £27,205 for new rolling stock. The debit balance remaining on renewal accounts is £22,604, against £30,328 in the June half, and £21,618 in the December half of 1886. The accounts of the controlled lines are only finally adjusted at the end of each year. The estimated revenue results of the past half year, compared with the corresponding period of the previous year, are: Chicago and Grand Trunk, gross receipts, £338,148, against £290,273; working expenses, £251,963, against £237,373, leaving a balance of £86,160, against £52,900; debit balance, £2,915, compared with £36,853 for the half of the June previous year, and £49,459 for June, 1885. The Detroit, Grand Haven & Milwaukee, gross earnings, £114,940, against £114,925; working expenses, £91,049, against £87,576, leaving a balance of £23,900, against £27,349; debit balance, £9,644, compared with £5,897 in the June half of last year, and £12,055 for the June half of 1885. The subsidiary lines have shown better results during the past half than during the previous June half year, the improvement being continuous. The annual amount of interest payable on these sub-

sidary lines is as follows: Michigan Air Line, £15,500; Midland Railway, £105,651; Montreal and Champlain Junction, £8,630; Grand Trunk, Georgian Bay & Lake Erie, £15,510; total, £145,291. Of the authorized bond capital, the Michigan Air Line bonds amount to £25,300 not issued to the public, but held by the Grand Trunk Company as security for advances on authorized bond capital. The Grand Trunk, Georgian Bay & Lake Erie bonds amount to £46,400, not issued but held by the company to provide for future extensions or improvements, and these bonds will not be acquired under the powers of this act until the proceeds are required for such purposes. The bond capital of the Wellington, Grey and Bruce Railway is not included in the schedule to the act, power to acquire the bond capital of that line by the issue of debenture stock having been previously obtained. The bonds of that line acquired amount to £253,700.

The interest on the two controlled lines included in the act is as follows: Chicago & Grand Trunk, £197,664; Detroit, Grand Haven & Milwaukee, £75,890. The Grand Trunk Junction Company being leased to the Chicago & Grand Trunk, the annual interest on the bond capital of the former line is included in the statement of authorized bond capital. The Grand Trunk Junction line bonds amounting to £230,000, representing an annual charge of £11,500, have not been issued, but are held to meet necessary extensions in Chicago. Against the charge for 1886 for interest on the bonds and obligations of the Chicago & Grand Trunk Railway, £6,684 is credited as having been received mainly for the rentals of property on State street, Chicago, and £4,983 is credited for interest on advances, on account of Lake Michigan steamers, against the Detroit, Grand Trunk & Milwaukee Railway. The charge at the average rate of interest on the securities scheduled in the act is £5 7s. per cent, and the interest on the perpetual 4 per cent consolidated debenture stock at the present marked price represents only £4 5s. It is anticipated that, by the operation of this act, a large reduction in the preferential interest charges of the Grand Trunk system will be eventually secured, and the position of the 4 per cent debenture stock also materially improved. The Grand Trunk Railway Act will be submitted to the proprietors at the meeting on October 13.

Since June 30 last, the doubling of thirty odd miles of main line between Montreal and Toronto has been commenced, and it is hoped the work may be completed, and the double line be available for traffic during a portion of the current half year. When this has been done there will be nearly forty-five miles of double line between Montreal and Toronto.

In conclusion the Directors say the half year has been unfavorable in respect of the severe winter, unusually prolonged, and the increasing competition of the Canadian Pacific Railway from the connections that railway has extended through the provinces of Ontario and Quebec. Having regard to these disadvantages, the Directors cannot but consider that so far the improvements shown on the Grand Trunk system have been satisfactory, and the results of the work of the half year are encouraging in showing the strength and capacity of the

system as now established to retain a fair share of the business of the country, and to make progress even in the face of further competition which must undoubtedly be expected.

The Canadian Pacific in Maine.

The *Boston Herald* has had the enterprise to send a correspondent to "write up" the construction of the Canadian Pacific Railway through Maine. The correspondent, writing from Granville, sends a graphic and interesting description of the work, of which the following is a condensation. Lack of space only prevents the presentation of the article in full:

The *Herald* writer has been making reconnaissances at the principal points where the line is being constructed. The road enters the State at its western boundary, where a year ago operations were begun in township 2, range 8, in the northern part of Franklin County. From that point, following the route as it has been surveyed across the State to its eastern terminus at Mattawamkeag, in Penobscot County, on the line of the European and North American branch of the Maine Central, with which road it will form a close connection, the distance is 128 miles. Mr. H. D. Lumsden, of Montreal, has general management of the work of construction in Maine, with headquarters at Sherbrooke, in Canada. He succeeded Mr. James Ross last summer, who resigned to take a contract to build 70 miles of the line between Sherbrooke and Farnham. This is the only unfinished link in the road between Montreal and the Maine boundary. Mr. A. L. Hogg, of Montreal, is the chief engineer in charge of the work of construction in Maine, whose duty is to see that the contractors perform their work according to the surveys. The work is divided into four divisions, each in charge of an engineer. These engineers constitute Mr. Hogg's staff. Mr. James A. Pattison has charge of the Moose River division, with headquarters at Moose River. This division is about 30 miles in length. He has three resident engineers under him. Mr. S. B. McKee has charge of the Greenville division, which is about 36 miles in length, with headquarters at Greenville. He has resident engineers under him. Mr. Matthew Neilson has charge of the Brownville Division, which is some 31 miles in length, with headquarters at Brownville. He has three resident engineers under him. Mr. Alexander Middleton has charge of the Mattawamkeag, or last division, which is about 31 miles in length, with headquarters at Mattawamkeag. He has three resident engineers under him. The resident engineers employed are all young men, who are graduates of the Canadian colleges of engineering at Toronto, Kingston and Montreal. Most of them held similar positions during the construction of the Canadian Pacific through the Rocky Mountains.

The work of construction is let out in ten contracts, and the time of their expiration ranges from this fall till next spring. These contractors belong in Canada, like the engineers, and they have had large experience in building railroads. One of them has made

\$250,000 in the business. The contracts are divided as follows:—Contracts 1 and 2, covering 24 miles and extending from the western end of the line to Holeb stream, is let to Luke Madigan, whose headquarters are at Moose River. Contract No. 3, from Long Pond to the Kenneka River, a stretch of 17 miles, is let to Starrs, Askwith & Co., whose headquarters are at Greenville. Contracts Nos. 4 and 5, from the Kenneka River to 12 miles beyond Greenville, covering some 22 miles, is let to Wm. McKenzie, with headquarters at Greenville. Contracts Nos. 6 and 7, covering about 30 miles in distance, are let to D. D. Mann, with headquarters at Greenville. Contracts Nos. 8 and 9, or some 23 miles, are let to Angus Sinclair, with headquarters at Lincoln. The last contract, No. 10, for a piece of road ten miles long and extending to Mattawamkeag, is let to James A. Gordon & Son, with headquarters at Mattawamkeag. Some of these contracts have been sublet in order to facilitate the progress of the work of construction.

The road, after it crosses the western boundary of the State, traverses the water shed between the Chaudiere River and Moose River, the head waters of the Kennebec. It follows the Moose River until it reaches Holeb Pond, the shores of which it skirts, as it also does those of Atteau and Wool Ponds. Thence it runs along the Moose River to Long Pond, and from there along the rapids between Long Pond and Little Brasana Pond. All these ponds are connected with the Moose River. At Little Brasana it leaves the Moose River, and runs across Misery Stream and through Misery Notch, which is a natural passage in a range of mountains. The gorge is barely wide enough in some places for the iron horse to pass through.

The walls on either side rise to a perpendicular height of between 300 and 400 feet. It was very fortunate for this portion of the route that this natural passway was here. Had it not been it would have necessitated an entirely different location of the line. About two miles from the gorge the road crosses the west outlet of Moosehead Lake, some four miles from that inland sea. Nearly four miles further on it crosses the eastern outlet of the lake, or the Kennebec River proper, just below the dam, at about one-fourth of a mile from the lake. This is the dividing line between Somerset and Piscataquis Counties. This dam was built to hold back a reserve of water for log-driving purposes. From that point to Greenville, the road follows the shores of the lake, so close in several places that the embankment requires protection by riprapping, which is now being done. Quite a number of places along the shore of Moosehead require great engineering skill to overcome the difficulties met with in locating the line around rocky points and across deep bays, to avoid too deep cuttings or heavy fillings in the lake. Several rock cuttings along the lake shore are 50 feet in depth, with corresponding high embankments. At Greenville (West Cove), the Canadian Pacific will connect with the Bangor and Piscataquis railroad. Greenville is the terminal point of the Bangor and Piscataquis on the north, while its other terminus is Oldtown, 89 miles distant, where it connects with the Maine Central and

runs its cars over that road to Bangor. The Canadian Pacific crosses the Bangor and Piscataquis at Greenville, on an overhead trestle and iron spans, some 20 or 25 feet in height above that road. A transfer station for both roads will be built on the shore of the lake and convenient to the steamboat wharf. Its location was decided to-day by the railroad commissioners, with the approval of the officers of both roads. Thence the Canadian Pacific runs in a south-easterly direction to Wilson's Stream, passing about half a mile south of Greenville village. Crossing Wilson's Stream on an iron viaduct, some 120 feet in height from the valley below, and 1,300 feet in length, it follows the windings of that stream for several miles, or until it reaches Boar Stone Mountain, where it runs along the southern shore of Ship Pond, crossing its outlet on another iron viaduct 100 feet in height and 1,000 feet in length. Both of these viaducts will be built during the coming winter. Thence the road traverses along the two Benson Ponds, and thence takes a due easterly course through the townships of Rowenbank, Barnard and Williamsburg, following the valley of the Rowing Brook through the latter township. It then flits across the little Bangor & Katahdin Iron Works railroad, which runs from Mila, on the line of the Bangor and Piscataquis railroad to the Katahdin iron works, a piece of road 19 miles long, and then it crosses the Pleasant River, about three miles north of Brownville village. From there it runs across Brownville township to Schoolic Lake, following the south-western and southerly shores of that sheet of water in township four, range eight, until it reaches the line between Piscataquis and Penobscot Counties, when it takes a north-easterly direction, crossing the Matamiscontia and Madunkeunk Streams, and thence it runs through Chester township, crossing the Penobscot River at Mattawamkeag, its terminus.

The building of the road I find is being hindered by the rock formations which are being encountered. No slate is encountered after crossing the western boundary of the State, but a granite rock instead, as far as Little Brasana, which is an expansion of Moose River, and whose valley is lined with terraces of siliceous slate. Thence to Misery Notch the formation is Oriskany sandstone, containing characteristic fossils, while further onward, at Ledge Point, a group of Lower Helderberg is encountered. Along the shore of Moosehead, within a mile of Greenville, is a belt of syenite that crosses the lake east and west at Ledge Island. On both sides of this belt are mica schists. From Greenville to about four miles west of Ship Pond are slate rocks. Then is struck a belt of granite rock about three miles long. From Ship Pond easterly is found a large granite formation that furnishes an excellent stone for culverts, for which it is being used. The face of the country beyond, and indeed as far as Mattawamkeag, is not as rugged or broken as that already mentioned. The heaviest and most expensive work I find is between Greenville and Ship Pond, where there are a number of heavy earth and rock cuts. Two of the latter are nearly 20,000 and 24,000 yards apart respectively, and there are many exceeding 10,000 yards each. The char-

acter of the earth generally is hard, with large quantities of boulders. In the sandstone belt what appears to be rock in situ are immense boulders, many of them weighing hundreds of tons each. One of these boulders that has been removed was as large as an ordinary dwelling house.

All along the line an army of laborers are employed in hastening the progress of the work. The pick and shovel brigade number some 4,000 men. Of these some 1,500 are Italians, while the remainder of the force is made up of Canadians, Norwegians, Hungarians, Swedes, and, in fact, almost every kind of nationality and mixed race. One thousand houses or so are employed, and some 14 or 15 steam drills are used. The laborers receive \$1.50 per day for their work, and they are paid regularly every month. As a general thing they are a rough set, and it is fortunate that some of them are so far away from civilization. During the past summer they have lived in canvas tents and rude board shanties, but now that cold weather is approaching they are providing themselves with more comfortable and better quarters. A large number of them are building log houses, covered either with boughs or roofs of turf. Life in their camps is not unlike that of the lumbermen, who are now coming into the woods for their winter's work, and their "grub" is about the same, with the exception of the Italian contingent, who huddle in their own dirty huts, and subsist on their favorite black bread and macaroni, with soups made of putrid meat and pungent onions. I am told that it does not cost these swarthy and brigandlike looking fellows over \$6 a month for what they eat. The food of hundreds of others of the immense gang of laborers is equal to that of a first-class country inn. The men indulge in various kinds of rough amusements, and at night the blaze of the crackling camp fires can be seen at a great distance. One of the principal evils that exists among the men is that of drunkenness. No sooner do they get their month's wages, than hundreds of them have a regular jaunt. Bottle peddlers are numerous in their camp about the time their pockets are jingling with their earnings. Within the past two weeks since the men were last paid off, these bottle peddlers have infested their camps and supplied them with all the liquor they wanted. The contractors are powerless to rid the camps of their presence, and they are making many bitter complaints on account of the non-enforcement of the liquor law, because, when the men get drunk, it delays the progress of the work.

The sanitary condition of the men is carefully looked out for, and prompt medical treatment is given in cases of sickness. There is a fully arranged medical staff along the whole line, of which Dr. J. A. Sweat, a Maine man, formerly of Brownville, is director. The services of the physicians are paid for by the men, who are obliged to contribute 50 cents each monthly for such a purpose. There has been very little sickness since the men began work last May. Only three men have been killed while at work.

The work is being pushed with energy, and one year from this fall, it is confidently ex-

pected, the road will be completed and ready for the public traffic.

The entire road, it is manifest, is being constructed in a substantial manner. All bridges, trestles and cattle guards will be covered with 8x8 ties, 14 feet in length, with 8 inch space. The two large viaducts will have only 4 inch spaces. The guard rails of the road will be 9x9, 12 feet apart, to admit of the passage of the largest snow ploughs, and a substantial protection to derailed trucks. As a matter of remarkable precaution, on the entire road there will not be a single opening by which a derailed truck can be dropped. This is the standard that is being adopted by the Canadian Pacific.

The Canadian Pacific and Toronto.

BEFORE the Railway Committee of the Privy Council on the 25th inst., a lengthy discussion took place on the dispute between the Canadian Pacific and Grand Trunk railways with reference to the new entrance into Toronto by the former by way of the Esplanade formed by the Don improvements.

Mr. VanHorne stated the case for the Canadian Pacific Railway, producing a map showing the proposed new route and pointing out its advantages. He desired permission to cross the Grand Trunk track at Parliament street, his company having secured a right of way twenty-eight feet wide south of the Esplanade from Yonge street to Berkley street, then crossing the Grand Trunk railway track at Parliament street and passing north of Mill street to a connection with the Don improvements.

Mr. Bell, solicitor for the Grand Trunk, and Mr. Wragge, engineer, opposed the application on the grounds that there were other ways for the Canadian Pacific Railway to get to the Don without crossing the Grand Trunk tracks. The Grand Trunk was quite willing that the Canadian Pacific Railway should come down the Don embankments, strike the Grand Trunk double track and use it into the city, but the proposed crossing would damage the traffic of the Grand Trunk and interfere with the working of the road for all time to come. If the proposal were persisted in it would lead to great litigation, as the Grand Trunk Railway were determined to resist the proposal by every means in their power.

Mr. VanHorne said the Canadian Pacific Railway were willing to spend any amount of money in offering greater facilities to Toronto. He was surprised to hear what Mr. Wragge had said, considering it was Mr. Wragge who suggested this very crossing. The crossing could be protected by the interlocked switch system.

Mayor Howland said the Council had passed a resolution and had drawn up a petition approving of what was proposed to be done by the Canadian Pacific Railway. In the first place they had made arrangements to come down on their Don improvements, which the city had made, and the Esplanade. Having partially agreed that the Canadian Pacific Railway should use the Esplanade, it would be a very serious disadvantage if it were not carried

out. There was no population in the vicinity of the Esplanade, and there would be no danger.

Mr. Blackstock, on behalf of certain owners of property, asserted that if the C. P. R. were allowed to cross at the spot they desired it would injure the property in that locality. They were not averse to the C. P. R. making an entry at another point.

After some further discussion the matter was taken on deliberation by the committee.

Mayor Howland and the Toronto Deputation made some enquiries at the Public Works Department with reference to the proposed extension of the Windmill line into the harbor, but owing to the illness of the Minister and the non-return from British Columbia of Chief Engineer Perely, the matter could not be discussed.

Short Cuts to Europe.

MR. JAMES HANNAY has an article under above caption in the current issue of the *Epoch*. In this the writer shows to New York readers how greatly they can shorten the ocean voyage to Liverpool by keeping the land route as far as Halifax in winter, and to Chatham in summer, when the railway bridge at Fredericton is completed. The tables are convincing:

New York to Halifax, all rail	miles 943
Halifax to Liverpool	2,468
New York to Liverpool	3,411
Difference	311
New York to Chatham	753
Chatham to Liverpool	2,350
	3,103

It will be seen, as Mr. Hannay points out, that going via Halifax the ocean voyage of a New York passenger to Europe would be shortened by 632 miles, or 36 hours very fast steaming, and there would be an actual gain of 12 hours in time if special through trains connected Halifax and New York.

The summer route from New York via Chatham and the Gulf would give practically the same mileage between New York and Liverpool, with the difference that 53 miles would be on land, and 500 miles more on the land locked waters of the Gulf, with less danger of severe storms.

Mr. Hannay's article also shows the advantage of the Canadian route to passengers from Chicago, and discusses the advantages of White Haven and Shippegan as points of departure or arrival on this side of the Atlantic.

London Free Press.

MR. JOHN A. MILLER, of Cairo, Ill., correspondent of the *Railway Service Gazette*, who has been a practical watchmaker for many years, says that never before have watch repairers been so troubled with fine timepieces "getting off all at once." This is due to the watches being brought into such constant contact with electric currents. Railroad watches are the most unreliable. Mr. Miller explains that the iron brake shoe generates a current of electricity that is carried direct to the watch of the brakeman as he presses his watch in his vest pocket tight against the brake-wheel.

The Inter-State Law.

It becomes interesting to note the decided changes in the views of leading men in regard to the Inter State Commerce Law. For some time after the law went into operation, it was not difficult to find men possessing the reputation of shrewdness in business affairs, including prominent railroad managers, who were ready to believe that the effect of the law upon the earning capacity of the railroads would be decidedly injurious and would tend to depreciate the value of railroad securities. The history of the past six months has demonstrated beyond all question that these views were erroneous, and now every one admits that the law has proved beneficial to nearly all the railroads of the country. There has been some opposition to the construction placed upon certain provisions of the law by the railroad managers among merchants who have believed that they were suffering on account of the misconception of the true meaning of Congress, and complaints have been made to the commission on this account; but in most cases the railroads have been sustained where decisions have already been rendered.

Judge Cooley, whose ability as a railroad man is recognized everywhere, is quoted as saying that at the proper time it is very probable some changes in the law will be recommended to Congress, although the time has not yet arrived for the announcement as to what those recommendations will be. He is inclined to think, however, that they will be less numerous or vital than many persons suppose. On the whole, he regards the law as carefully drawn and as expressing what its framers intended better than is shown by many statutes now on the books. In some parts of the law there is ground for doubt as to the question of its application to corporations other than railroads engaged in transportation, such as the express companies, may not be as clear as it might have been framed, but the changes which are really necessary, it is believed, Congress will show little if any hesitation in granting. No one believes that the law will be repealed, a point about which there was a good deal of discussion soon after it went into force, and very little is heard now in regard to the question of its constitutionality. Manifestly the law has come to stay, subject to such modifications as may be found necessary or desirable, and it is equally manifest that it is a decided blessing to that large and growing class of the community interested in railroad securities.—*Stockholder.*

St. Catharines Electric Railway.

A DISPATCH from St. Catharines, October 7, says:—The St. Catharines street railway opened six miles of road between this city and Thorold recently. It is run by electricity and proved a perfect success in every particular, far exceeding the expectations of the managers. The system adopted is known as the Van Depoele. The electricity, which is generated by water power at Lock 12, Welland Canal, with a 1,160 horse power dynamo, is

conducted by overhead copper wires connecting with the cars by means of small wheels which run along on the wires and thence through a flexible conductor. The cars are equipped with a 15 horse power motor weighing about 1,000 pounds, which is placed on the front platform. The people are enthusiastic over its success. The company expect to have twelve motor cars on within two weeks. The time of travelling between this city and Thorold has been reduced twenty minutes. The cars are under perfect control, being stopped and started without any jerking motion, going around curves of forty degrees and up grades of 7 per cent. without the least difficulty.

Shipping Manitoba Grain.

THE *Winnipeg Free Press* says: Superintendent Whyte returned recently from Port Arthur, whither he had gone to look into the prospects for handling the grain crop. He was afraid that the grain would be brought in so rapidly that the elevators would be filled up and the company reduced to the necessity of using their cars as storage warehouses. His fears he soon discovered to be unfounded, he says, and this chiefly from two causes: On the one hand, the farmers have been prudently attentive to their fall ploughing and have not rushed all their crops upon the railway at once. In addition to this the reports of the great harvest attracted a great number of tramp vessels to Port Arthur, from which point they have contracted to take over 600,000 bushels. This is an immense relief to the railway, as the space of the company's steamers and of the Beattie line was chartered ahead. Instead, therefore, of finding the elevators full, or nearly full, Mr. Whyte was gratified to learn that the Port Arthur elevator is empty and that there are only 120,000 bushels in the one at Fort William. When the rush comes after the close of lake navigation the prospects are that there will be lots of room in the elevators for the surplus brought in by the farmers over the immediate carrying capacity of the railway.

Mr. Whyte regards it as a very fortunate thing for Manitoba that the crop in Ontario is so very light this year. A large part of the west's crop will be bought by the millers of Ontario, which means a very much larger profit than if the wheat were to be exported. Between the growing competition from India and the long haul to the Atlantic the prospect of a good price for wheat raised here is not very encouraging. But between the local demand from the Ogilvies and that of the Ontario millers, most of this year's harvest will be disposed of at a good figure.

THE electric lighted train which is to be placed on the Canada Atlantic Railway has been thoroughly tested and found to work very effectively, and the train is now part of the regular service. It is said the parlor cars are ahead of anything of the kind on the road, as far as luxury and conveniences are concerned. The lights are so arranged that reading is made easy and pleasant.

Issuing Instructions.

GENERAL MANAGER BROUGHTON, of the Chicago & Atlantic, had only recently issued to his men a long circular rehearsing many of the dangers to be guarded against, and giving numerous exhortations to care and faithfulness. The Kouts collision is a sad commentary on this order, and forces the question whether it would not have been better to make sure that even a few of the rules already issued were well known and understood, than to thus vaguely put forth a multitude of heterogeneous precepts devoid of any plan or arrangement; and this in a way that might almost as well have said "we know that you have not conscientiously studied and tried to carry out the instructions given you, and we know of no way to remedy the matter but to issue this general appeal which can be disregarded with the same impunity that has followed your disregard of previous orders."

In dunning a debtor whom we are afraid of, and who must be handled with tenderness, we send "appeals," "reminders," and such like; we carry the idea, falsely or otherwise, that he may pay or not, as he deems most agreeable; but in proceeding against a person from whom we are determined to compel payment we take a different course. Ambiguous phrases and those that give merely sound or smoothness are laid aside; directness is employed in everything said, and is compelled in the answers. The same principle applies in getting information as in getting money. The superintendent who wants positive knowledge that his men understand certain rules and are intelligently trying to obey them must ask plain questions, require positive answers to them, and pursue the process until he tests not only their willingness but their intelligence.—*Exchange.*

Suing Gould and Sage.

Two gentlemen who, by their names, appear to be Hollanders, as holders of Kansas Pacific consolidated mortgage bonds, have begun a suit in the New York supreme court against Messrs. Gould and Sage, which promises to be full of interest should it ever be carried through to a trial. The defendants are sued as trustees of the Kansas Pacific consolidated mortgage, and the complaint is based upon the famous withdrawal from the Trust of the 30,000 shares of Denver Pacific stock and its alleged use for their own benefit. For this reason it is asked that they be removed as trustees and forced to account for the stock or its proceeds and that a receiver be appointed for the trust funds during the litigation.

This action is of course one of the first outcomes of the work of the congressional investigating committee, the testimony given before that body having revived the memories of the great Union-Kansas Pacific deal, while making clear a great deal about the transactions of that time which was obscure. It of course remains to be seen whether the litigation thus started will be permitted to go on, but it is pretty certain that if suits of one kind or another growing out of these old

transactions are likely to be going on Mr. Gould he must feel very much like taking an active hand on the bull side of the stock market. We need only point out to our bull friends what excellent policy it would be on Mr. Gould's part to do so! The fact is, however, that the trouble about these ancient historical matters has only begun, and Mr. Gould will have his hands too full to think of boosting up stocks no matter how much certain people would like him to do so. *Financial Daily Record.*

New Palace Cars for the Grand Trunk.

A RECENT issue of the *Montreal Gazette* contains the following: There are just now being finished at the Grand Trunk shops, Point St. Charles, for the Pullman Company, two new sleepers, built expressly for service between Montreal and Toronto, which for thoroughness of workmanship and elegance of finish have probably never been excelled either in Canada or the United States. These cars were built from working drawings and specifications furnished by the Pullman Company, and are of the following dimensions and style: Length of body, 65 ft. 2 in.; length over all, 71 ft. The general plan is 10 sections, drawing room, smoking-room and buffet, giving a capacity of 25 berths. The general woodwork of the car is of mahogany, very highly polished, and in place of inlaid work the entire ornamentation is in elaborately carved designs. The ornamentation throughout is of the Louis XV. style. The ceiling is something new in roof ornamentation, having a gold border about six inches in width, and in the centre a beautiful design in panels of gold with raised ornaments on a groundwork of very light blue. The upholstery in the body of the car is of peacock blue glasse plush, the seats having high backs, furnishing a comfortable head-rest for each passenger. The carpet is a heavy Wilton, of colors and patterns to correspond with the general finish of the car.

The drawing-room is upholstered in old gold plush, and a special feature is an elegant mantel and mirror of Louis XV. style surmounted by a drapery lambrequin of old gold silk plush. The drawing-room is provided with separate washstand and toilet facilities, supplemented with a full length pier glass of finest French plate with beveled edges.

There are two ladies' dressing rooms with all the toilet accessories. The smoking-room and gents' end are finished in English oak, elaborately carved and highly polished. The gents' washstands are situated opposite each other and crossway of the car, thus furnishing more room. A finely carved cull rack, with brass front guard surmounting a plate glass mirror between the two stands, gives a fine finish to this end of the car, which is enhanced by a full length pier glass at the side.

The smoking-room is finished in English oak, with panels of embossed leather elaborately ornamented in gold. The centre panel in this room merits special mention, being ornamented with a border of tobacco leaves and plant in gold, surmounting a trophy of crossed pipes, pouch and full smoker's outfit.

The cars are fitted with lamps of special pattern to correspond with the general ornamentation, heavily plated with silver. These, however, are only provided for emergencies, as the cars are to be lighted throughout by electricity. Electric force for this purpose will be furnished by the Julien system of storage batteries under each car, which will be furnished with 24 incandescent lights, distributed as follows: Body of car, 10; drawing room, smoking room and buffet, 2 each; vestibule, at each end, 2 each; toilet rooms, 1 each, and one under the head over each platform.

The outside ornamentation is of the latest pattern known as the "Pullman Limited." The outside appearance of the cars is a marked change from the earlier styles, the double Gothic windows and large size of the lower windows, the new ornamentation and panelling giving a very pleasing and rich appearance. The letter board contains the single word "Pullman," while below the line of the window sills in a handsomely ornamented panel are the words "Sleeping Car," with the name of the car underneath.

The buffet is a very fine piece of carving ornamented with gilded scroll work and plate mirrors. The silver ware was made to order from Pullman patterns and the crockery was imported specially for these two cars.

The cars are heated by the Baker system of hot water pipes, and electric bells from every section and room give ready means of calling the conductor or porter to any part of the car when their services may be needed.

The cars are mounted on "Pullman 5" trucks with 2-inch steel tire wheels. They are named "Canadian" and "American," and will be on exhibition at Bonaventure station for a day or two before being put into service, due notice of which will be given.

Railway Building by Night.

THE *Railway Age* editorially says: In the early days of railways the idea of running trains at night was not thought of, but at the present time the greater part of the freight traffic and perhaps of the passenger traffic is handled in the hours of darkness. A similar change seems to have been begun in the work of railway building. The feasibility of carrying on grading and even track-laying at night was hardly suggested until recently, but now it is not uncommon. The rush of competition between great lines to reach given points and the necessity sometimes imposed of building a certain distance before a fixed date in order to secure local aid have necessitated the employment of the night hours in numerous cases; and it is found that men and teams work fully as efficiently by night as by day. A contractor who has been doing a large amount of grading on one of the western roads tells us that he finds that the men accomplish more between 7 p. m. and 7 a. m. in shoveling than in the same hours of daylight, because their attention is not distracted by other things at night, and in the summer the air is cooler than in the daytime. Of course it takes the men some time to become accustomed to the unnatural inversion of the hour of work and sleep, and some of them are inclined to

waste the daylight hours in drinking and thus are unfitted for night toil; but these worthless fellows are gradually sifted out and the force engaged in the night work soon accomplishes fully as much as those who work only by daylight.

Where machinery is employed, as in the case of steam shovels, etc., there is evidently great economy in running night and day, as the plant then is not standing idle half the time. The comparative efficiency of steam driven machinery over human muscles is so great that this is becoming recognized as an important consideration. Thus it is estimated that one steam shovel working day and night will do the work of about one hundred men, and as steam shovels do not get drunk or strike, and as their systems do not call for rest at night they evidently possess important advantages over human machinery. The employment of the night hours has made possible some of the extraordinarily rapid railway construction which has characterized the last year or two. When a company has decided to build a line and has the money or the credit to do it with, every day lost before the road is put in operation means a loss of interest, and if the time of building can be shortened one-half by night work, thus putting thousands or millions of dollars at work in half the time ordinarily allotted to the construction, the aggregate saving thus effected may be very large.

The St. Catharines & Niagara Central.

THE St. Catharines & Niagara Central Road has been completed from the Niagara River to Thorold, and a train has already been run from the American side over the Cantilever Bridge (over which the company has running powers) to Thorold, thereby saving the bonus from this town. The right of way into St. Catharines has been secured and it is expected that the road to that point will be completed this year. The directors expect a favorable outcome of the negotiations for running powers over the Hamilton and North-western bridge over the Burlington Canal, this being the only point of serious difficulty between St. Catharines and Toronto.

A Paraguay Railway.

THE Republic of Paraguay is not agitated over railroad pools. Its single line is 43 miles long, extending from the capital, Asuncion, south-east to Paraguay. This road, with a gauge of 4ft. 3.5in., and steepest grade 1 in 75, was begun by the state in 1864. The work was soon interrupted by war and not resumed till 1870. The state managed the road till 1877, then gave it over to a private company, but bought it again in 1885. All the engineers, material, and equipment were brought over from England. The equipment in 1886 consisted of seven locomotives, six passenger and fifty freight cars. The gross earnings have been—in 1878, \$28,920; in 1881, \$63,000; in 1885, \$83,027; in 1885 net earnings were \$28,080, and 118,943 passengers were carried. The road is valued at \$1,223,910. An extension to Villa Rica is contemplated.—*Railroad Gazette.*

The Railway Service.

TRAFFIC on the Kingston & Pembroke is said to be heavier than ever before.

AMONG the recently issued patents in the United States is one to Mr. E. H. Cheno, of Brenton, N. S., on an improvement in station indicators.

THE C. P. R. library committee, Rat Portage, have added seventy-five more books to their library last week, and have ordered two hundred more from Montreal.

TRAINMEN are not troubled by tramps so much this fall as formerly. It is true that the constitutional tramp is still on the rounds, but there is now much more work for nearly all classes of labor. The "houncer" of the train crew may have a little leisure this winter.

At the meeting of the Fruit Growers' Association recently held at Grimsby, President Allen stated that he was going to try the experiment of shipping apples to India via the C. P. R. The future possibilities of this business he said were a demonstrated success. He hoped to see fruits shipped in cold blasts, and their keeping qualities, and with this process apples would carry to India as well as to Liverpool.

THE annual meeting of the Canadian Ticket Agents' Association was held in Toronto, on Saturday, 15th inst. The Secretary's report showed that the Association was in a flourishing condition. The following officers were elected:—President, H. J. Hunt, St. Catharines; First Vice-President, W. R. Callaway, Toronto; Second Vice-President, P. J. Slatter, Toronto; Third Vice-President, W. J. Grant, Hamilton; Secretary-Treasurer, E. De la Hooke, London; Auditor, W. Jackson, Clinton; Executive Committee, H. J. Sharp, St. Marys; T. E. Long, Port Hope; Barlow Cumberland, Toronto; C. E. Morgan, Hamilton, and W. R. Clmie, Bowmanville. The next annual meeting will also be held in this city.

A NORTH-WEST exchange says: The C. P. R. freight department officials are making their preparations for the shipment of export cattle from the Calgary district. Within the last few days strings of cars have been sent west, and very shortly the first shipment, probably about fifty carloads, will be eastward bound. C. P. R. people say that the prospects this season are very good, and beef is reported in good condition. Ranchers are shipping principally on their own account, thereby saving the commission which would otherwise fall into the hands of agents. From seven to nine days will be required, including all stops, for the transportation of stock from Calgary to Montreal. This is considered good time by shippers and railway men.

THE Victoria, B. C., *Standard* says: We learn that the Canadian Pacific Railway Company and the Canadian Pacific Navigation Company are negotiating for a new line of steamers from Vancouver to northern coast points, especially with a view to meet the re-

quirements of the constantly increasing stream of tourists coming from the East. It is proposed to put on first-class steamers that will make the round trip in a few days. The objective point of the new line has not been determined, but it is very probable it will be some port in Alaska. Taken in connection with the report published the other day that the Canadian Pacific Railway has purchased steamers for a line to San Diego, it indicates the determination of that corporation to draw trade to its line from the entire coast.

SOME time ago there were published in this journal a number of instances of long continued service by different locomotives without repairs. Later experiments in this direction are reported. A Pennsylvania railroad engine last year ran during one month 16,368 miles in regular daily train service. Subsequently an engine of the Wilmington & Baltimore accomplished 17,112 miles in a month, covering the distance between Philadelphia and Washington, 138 miles, four times every 24 hours. This is a remarkable record indeed, and it justifies the position taken several years ago by some managers, and at that time discussed in these columns, that there is economy in keeping locomotives continually going with changes of crews, instead of allowing the engines to lie idle from twelve to sixteen hours out of twenty-four because a single train crew cannot be kept in constant service.

THE papers are giving well deserved praise to J. Ernest Smith, express messenger on the Northern Pacific Railroad, between El Paso and San Antonio, Texas, for his plucky and successful resistance of an attempt to rob his car. The despatch says:—The messenger was J. Ernest Smith, and with him was J. R. Beardsley, clerk in Wells' Fargo office, at Fort Worth. When they heard the firing they put out the lights and went to the rear end of the car. At the command of the robbers they came out, Smith leaving his revolver just inside the door. The robbers ordered Smith and Beardsley to hold up their hands, and then searched them. Smith was then ordered to go back into the car and light the lamp. He climbed back, and the foremost robber started to follow. Smith seized his pistol, placed it almost against the robber's breast and fired, sending a bullet through his heart. The robber fell back dead, but fired twice at Smith while falling. Smith and the other robber also exchanged shots. The robber then attempted to get his comrade's body on the engine, intending to uncouple it from the train and run on. While he was trying to lift the body upon the engine the messenger got his double-barreled shotgun, leaned out of the car and shot at him. The robber sank down, then sprang up and ran out of sight. The dead body of the man was found next day a few yards from the scene of the attempted robbery. Messenger Smith is from St. Louis, living now at San Antonio. He has been employed by Wells, Fargo & Co. for four years. The citizens of El Paso presented him with a suit of clothes and have raised over \$100 for a medal. J. W. Nichols, Superintendent for Wells, Fargo & Co. for Texas and Louisiana, telegraphed Smith congratulating him on his

victory, and saying if his example were followed train robbery would be a thing of the past.

Miscellaneous.

OWING to the immense freight traffic on the Michigan Central, unprecedented in the history of the road, Train-master F. P. McDonald has found it necessary to promote fifteen brakemen to the position of conductors.

THE *London Times* editorially approves the subsidy of the trans-Pacific route and expresses regret that the Government did not arrange for a fortnightly service, and adds: "What we now want to complete the route for strategic purposes is a cable across the Pacific, with both ends under our own control, and a branch to Australia." The evening papers likewise praise the Government's action.

The people of Trenton are elated over the prospective starting of smelting works in that town. Peter McLaren, who is a stockholder in the Central Ontario Railway, will give a bonus to the enterprise to the amount of \$200,000, providing the town gives \$50,000 for the same purpose. A resolution of the Council was passed, unanimously accepting the proposal, subject, of course, to the approval of the ratepayers.

THE *Railway News* of London, England, speaking of the Grand Trunk's latest report, says:—Progress, and that of the most gratifying nature, is stamped on every page and every table of figures in the reports and accounts now presented to the proprietors. To many of the readers of this document it will be difficult to concentrate attention upon any one point, in order to gauge with accuracy the full measure of the progress which the company has made during the past two or three years. There is nothing in the history of colonial undertakings which can compare with, and but little in the records of home railways which can approach, the marvellous increase in the receipts of the company for the past half year, as compared with, for instance, those for the same half of 1887.

SPAKING of Edison's latest invention the *Electrical World* says: The results thus far obtained lead to the conclusion that the economy of production of electric energy from fuel by the pyromagnetic dynamo will be at least equal to and probably greater than that of any of the methods in present use. But the actual output of the dynamo will be less than that of an ordinary dynamo of the same weight. To furnish thirty sixteen-candle lights in a dwelling-house would probably require a pyromagnetic generator weighing two or three tons. Since, however, the new dynamo will not interfere with using the excess of energy of the coal for warming the house itself, and since there is no attendance required to keep it running, there would seem to be already a large field of usefulness for it. Moreover, by using the regenerative principle in connection with it, great improvement may

be made in its capacity, and its practical utility may very probably equal the interesting scientific principles which it embodies.

An Elegant Car.

THE car in which President Cleveland and his handsome wife are to travel round the country during the next month is George M. Pullman's private car. It is now being fitted with a new system of electric lighting, and also partly refurnished. It has every possible convenience, from a piano and library to a cook stove. It also has a history, for it has carried nearly every great man, native or foreign, who has made an extended tour of the country in a dozen years. Gen. Grant came east from San Francisco in it, and he used it with his family on several other journeys. It carried the late President Arthur when he made his memorable trip to Florida, and the Duke of Sutherland journeyed in it across the continent. Mr. Pullman is rather proud of the car on account of these associations, and he has no present thought of parting with it. "The newspapers are always building new cars for me at fabulous prices, and furnished with all the splendors of an oriental palace," said Mr. Pullman recently, "but I am going to stick by the old love. I suppose the reporters will be mad, but I can't help it."—*N. Y. Sun.*

Almost a Disaster.

THE press dispatches have the following:—The presidential party had a narrow escape on their way to Memphis, Tenn., last week. When the train arrived at a trestle between Bonnierville and Jonesboro, Ark., the trestle was seen to be on fire. As soon as possible the train was stopped, though not before the engine had passed over the burning portion. The engineer found that a section about ten feet square was in flames and that the fire had been started on the under side of the timbers. The fire was soon put out, when it was discovered that the flames had not eaten dangerously

far into the wood and the trestle was still safe for the passage of trains. A careful examination of the burned timbers was made, which gave unmistakable evidence of an attempt at train wrecking. The fire was started on the under side of the cross ties in such a manner that there can be no possible belief that sparks were the cause of it. Then, too, the fire was certainly set to more than one tie at a time, for it could not have jumped from one to another without burning the sides of the timber more than it did. Another account says that the fire was discovered by a pilot engine

A Use for the Cyclone.

THE *Car and Locomotive Builder* says: Parties in Montreal claim to have harnessed the cyclone to useful mechanical operations, and there is said to be millions in it. As the cyclone has been accustomed for ages to waste itself upon the desert air tearing down shanties and uprooting harmless trees, it seems right and proper that its power in that direction should now be utilized in making it do pulverizing operations under perfect control. How the cyclone force is going to be developed in the first instance is not stated, but an associated press despatch assures all concerned that a capitalist of New York has purchased from the Montreal parties control of the invention, which illustrates an entirely new principle in mechanics growing out of the application of the natural principle developed in a cyclone. The results are said to show that iron slag can be reduced to an impalpable powder, and that other refractory substances, such as nails, can be ground finer than flour without the aid of tooth, stamp or roller. We repose the most child-like confidence in the motive power of the cyclone, for we once saw one at work; but when the new reporter begins to tell us about the new principle in mechanics, all the blandishments of the invention vanish. That accomplished persuader, Mr. Keeley, lately of Philadelphia, was strong in new mechanical principles, and it was New York capitalists who helped the

development of his industry. On the whole, we think New York capitalists ought to be left in undisputed control of the cyclone new-principle invention.

Another Trans-continental Line.

THE project of another transcontinental railway from the Pacific coast has taken form in the incorporation in California of the San Pedro, Los Angeles & Utah Railway Company, which proposes the great work of constructing a line from the Pacific Ocean, a few miles west of Los Angeles, eastward to Salt Lake. While the enterprise is ostensibly that of a few prominent citizens of Los Angeles there is some reason for the belief that the Missouri Pacific Company is the real moving power, as by the construction of this road and an arrangement with the Denver & Rio Grande it would have practically a line from St. Louis to the Pacific coast. The Missouri Pacific and the Atchison, Topeka & Santa Fe are now engaged in a sharp competition in Kansas, Colorado and Texas, and it would not be strange if Mr. Gould should have determined to carry the fight into California. Still the completion of such an undertaking, if it has been actually resolved upon, will require much time, and speculation as to the result of the construction of still another trans-continental railway is premature.—*Railway Age.*

THE first part of the administrative report on the railways in India for 1886-7 has just been issued by the Indian Government. Accompanying the report is a letter from the Director-General of Railways, stating that the net receipts for the year 1886 show an increase, as compared with 1885, of 6,314,996 rupees, and the percentage on the capital expended on open lines gives a return equivalent to 5.90 per cent., against 5.84 of the previous year. There had been a general increase in the net receipts and percentage earned on most of the lines in India, but more especially on the great Indian Peninsula and Rajputana-Melwa Railways.

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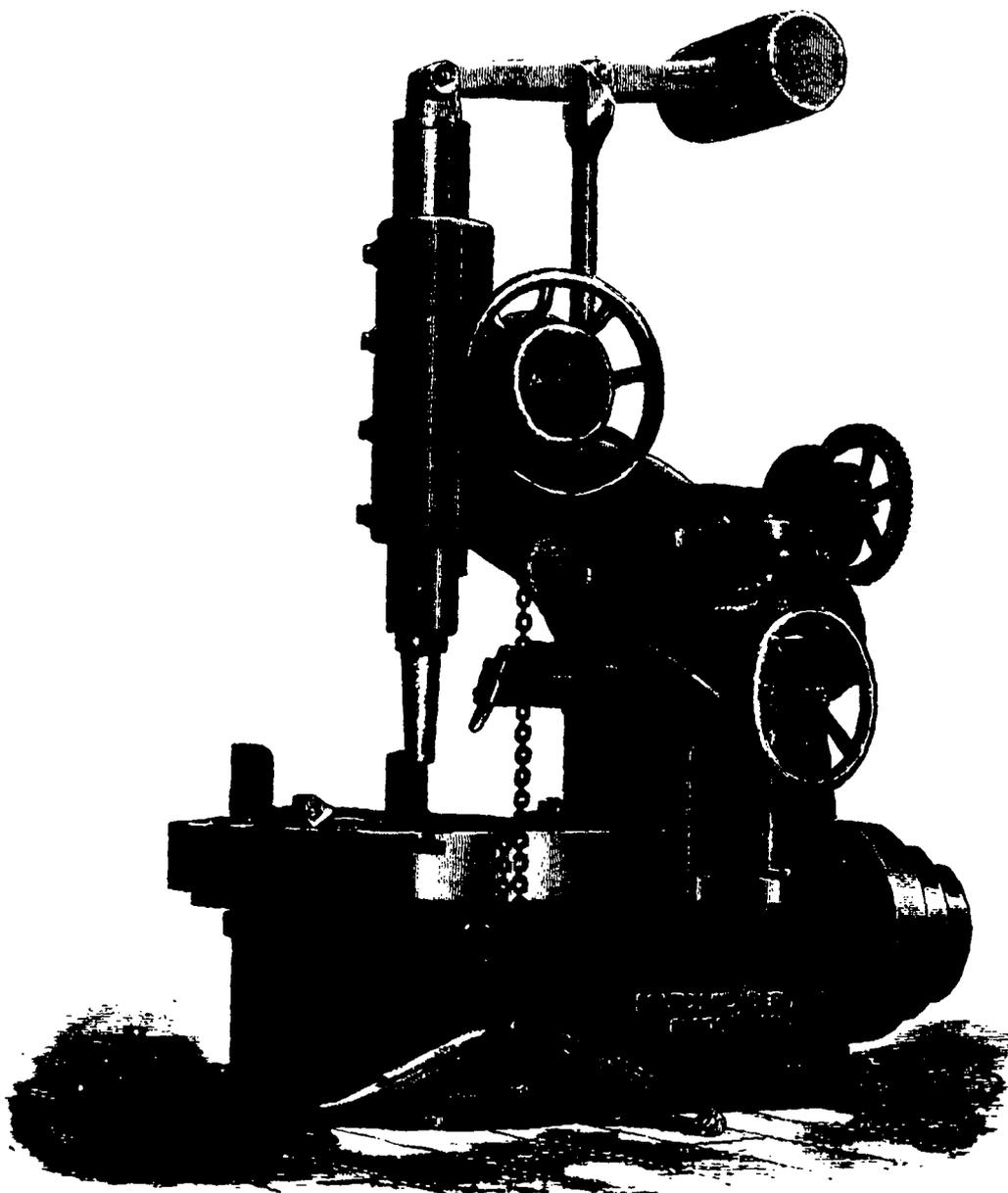
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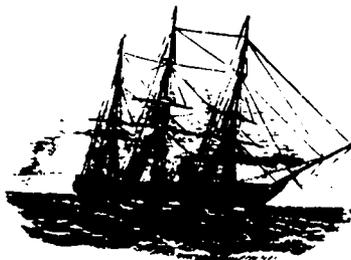
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