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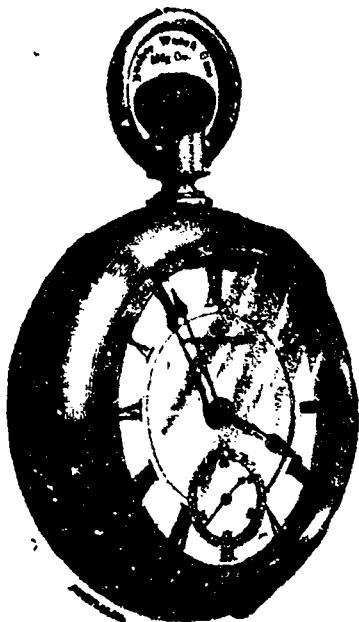
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MARCH, 1888.

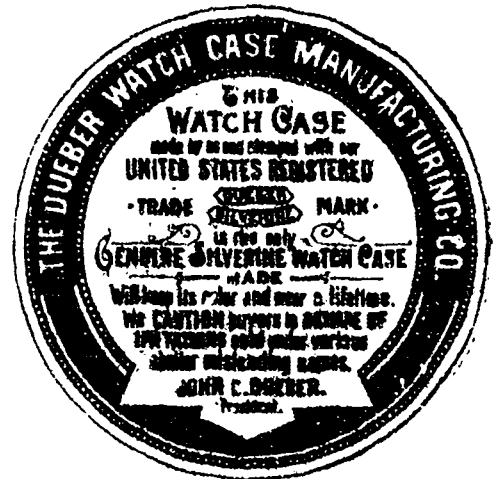
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16 75	20 75	27 75	35 75	56 25
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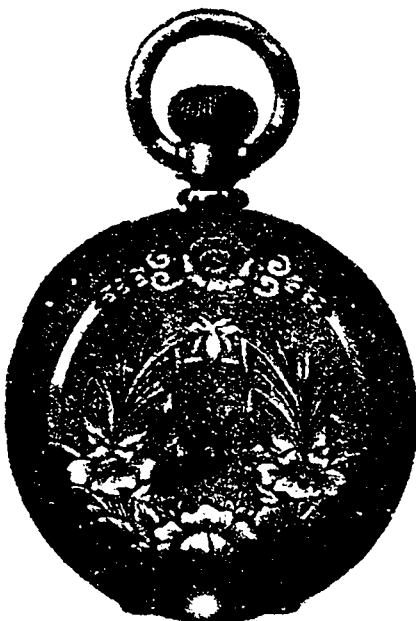
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# RAILWAY LIFE

A MONTHLY JOURNAL CANADIAN

DEVOTED TO RAILWAY INTERESTS

Vol. III.]

TORONTO, ONT., MARCH, 1888.

[No. 3.

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**PASSENGER**—It seems to me that we're a very long time in getting to Wildcat station. Conductor You forget, sir, that last night's blizzard blew it ten miles down the track. Life.

INDICATIONS point very conclusively to the building of a railway from Salt Lake City, Utah, to Los Angeles, California, under the name of the San Pedro, Los Angeles & Utah, by the Union Pacific Railway Company.

THE Interstate Railroad Commission has rendered a decision in the famous Standard Oil cases. It holds that any company which quotes "barrel rates" and "tank rates," in which the latter is made lower per hundred pounds than the former, is guilty of unjust discrimination. But oil companies owning tank cars may be allowed a reasonable recompense for their use by the railroad companies.

ONE hundred and eleven employees of the Panhandle shops were treated to a genuine surprise when they were presented with tickets of indefinite suspension. This is one of the ways of wealthy railroad corporations. What a howl there would have been if 111

men had quit them in a busy time without warning. —*Toledo Daily Bee.*

**THE RAILWAY AGE**—Indications point to the building of an unusually large amount of rolling stock during the present year. The prominent manufactories are full of orders and inquiries are such as to dispel all thought of any unfavorable turn. Even the near approach of the presidential campaign does not thus far produce any visible effect on the business of the country.

A DESPATCH from Albany says. Mr. John Jones, once an employee of the New York Central Railroad at West Albany, arrived here recently. Mr. Jones has been engaged by a railroad company in China for the past three years and his mission is to hire 500 engineers, firemen and brakeman to run trains on the American system in China. It is said the engineers will be paid \$250 monthly, firemen \$175 and brakemen \$125. All those engaged will have to sign an agreement to remain five years with the company.

PROBABLY the most remarkable railroad in the world is that running from Gloggingtz to Lounering, near Vienna. It is only 25 miles in length, and cost over \$7,000,000. It begins at the little station of Gloggingtz, at an elevation of 1,400 feet, and from there the train, hauled by two powerful locomotives, winds round and round over some fifteen double viaducts and through as many tunnels. It creeps along precipices affording glimpses of some of the wildest scenery in Europe. Its terminus, Lounering, is at an elevation of 3,500 feet.

A PITTSBURGH despatch states that in an interview on February 26th, Andrew Carnegie stated that, notwithstanding the natural facilities of Pittsburg, the iron and steel manufacturers were unable to compete with Chicago and the North-west. The cause of this was the advantage of lower freight rates. The steel-rail trade, he said, was unusually dull. Last year the consumption was 2,225,000 tons. From the present outlook, it will not reach half that amount this year. There is not a steel-rail mill in the country that has orders

to run them for sixty days, and many could not continue in operation a month.

A SINGULAR car has been built at Woolwich arsenal to carry the latest English gun, which weighs 248,640 pounds, or as much as the whole armament of a frigate 30 years ago. The car is supported on twelve wheels in all. Eight of these wheels are in two ordinary four-wheel trucks placed near the ends of the car. The remaining four wheels are placed near the centre, each pair of axles having an independent radiating motion. The whole load to be carried, including the chocks on which the gun rests, is nearly 300,000 pounds, and the car passes round curves of 40 feet radius in the line which passes through the shops of the arsenal and runs to the proving butts.

THE *Chicago Mail* says. The strike on the "Q" reminds me of a romance. In one of the towns on the main line lives a man who for years has been the employ of the corporation which is now having trouble. From apprentice boy in the workshop he worked his way up until he became an engineer. One night he was called up and sent out on an extra. He had not gone far on his run when something danced before the glare of his headlight, and as quickly did he reverse the engine. Leaving the pilot he walked down the track, and found a child, neatly wrapped and wide awake. He took it back to the pilot, made a cot, and proceeded on his run. On his return home the wail of the road was taken to his home, adopted, reared, and educated. She became one of the beauties of the little town, and grew into womanhood. The engineer, although nearly thirty-five years older than the pretty faced creature, loved her, and they were married. The other day, when there were rumors of a strike, the old engineer appealed to his child wife for advice, and she begged him to remain with the company and not desert the road on which he found her, and from which he rescued her. He consented, and there is one of the old engineers who is true to the throttle. I have this little story from a gentleman who lives in the town where the old engineer makes his home.

## Personal.

SAYS the *Railway Service Gazette*—It is pretty evident that if Hon. Chauncey Depew wants the Republican nomination for President, he can have it. But is Mr. Depew not a bigger man now than he would be if elected President?

MR. GEORGE H. CORLISS, the distinguished inventor and the builder of the famous Corliss engine which furnished the motive power for the Centennial Exhibition, died at Providence, R. I., of paralysis of the heart, on the 21st inst. Despite his 70 years he was considered in good health until a few days before his death, when a gastric fever induced the trouble that ended his life. He was born in New York, but located in Providence in 1844, and soon after made improvements in the construction of steam engines, which have revolutionized that industry. In 1856 the great Corliss works were built. Mr. Corliss received awards for his inventions at the Paris, Vienna, and other world's fairs.

"YEARS ago, when the New York Central and the Erie Railroads were engaged in a desperate and destructive battle of cut rates, Jim Fisk played a shrewd dodge on Commodore Vanderbilt. The freight rates from Chicago to New York City were so low that there was no profit in transportation. Fisk seized the golden opportunity to buy cattle; shipped the cattle over the Commodore's road, and so blocked the Commodore's transportation facilities that the Central was obliged to refuse all other freight. Fisk then put up the price of freight on the Erie, and was not only able to do a lucrative business while the Central was carrying cows at a loss, but was also able to get his cattle to the market, via the Commodore's line, at such low terms that he made a profit on every head."—*Railway News*.

CONCERNING the late Thomas J. Potter, Vice President and General Manager of the Union Pacific Railway, who died at Washington on the 9th inst., the *Railway Register* says: When he had reached the highest rounds in the ladder of preferment he was as unostentatious as while he occupied a humble place, and he was known affectionately by his old and new friends as "Tom" Potter. Many incidents are told, illustrating his genial qualities, and his keen appreciation for exact justice to all, high or low, and by those who knew him most intimately he will be remembered less as a general manager who attained distinction than as a man who always had time to listen to requests and to see that full justice was rendered to those who were still laboring in the ranks from which he had come up.

Two Danish engineers, Messrs. Ludt and Stenbergh, have constructed a car to convey fish alive by rail without the number of dying and dead fish rendering the undertaking unprofitable. The car consists of two square iron tanks mounted on a specially constructed truck, the salt water being kept fresh by a circulating pump deriving its supply from a tender. All excrement and sediment can also

be easily removed, while by another apparatus a uniform temperature is maintained in winter as well as summer. Some experiments with these cars have proved highly satisfactory, and the inventors maintain that they can forward live fish 200 to 300 miles by rail with only a minimum loss by death. They have also obtained a patent for their invention in Germany, where the transport of live fish from the coast to the inland towns is attracting much attention.

A CHICAGO dispatch, dated March 16th, says. General Manager Olds, of the Canadian Pacific Railway, appeared before the Interstate Commerce Commission here to-day to answer questions regarding the competition of the foreign road with American lines. Mr. Olds asserted that his company was not a disbarber, but that it had given American shippers the advantage of reasonable rates. He said that the Canadian Pacific was not responsible for the competition in Chicago and the west, as the American roads were the initial lines and the Canadian Pacific only took such business as they brought to it. He asserted that his road was working in amity with the transcontinental lines, and by agreement was allowed to make a lower rate fixed upon. The statement that the Canadian Pacific had robbed the American lines of \$12,000,000 in 1887 was all bosh. The gross earnings of the Canadian Pacific in that period were \$11,600,000, and the revenue from its interstate traffic \$165,000.

### Nothing to Fear from Firemen.

THE *Locomotive Fireman's Magazine* says: On more than one occasion in the past this *Magazine* has sought to give prominence to the fact that locomotive firemen are to locomotive engineers what a Fellow Craft Mason is to a Master Mason, what a first mate of a ship is to the captain, he is a fireman because he wants to be hopes to be—an engineer. He takes his position on the left hand side of the cab with pick and scoop and patiently works for years at low wages, that he may qualify himself for the responsible position of locomotive engineer. And just here let it be stated that the great majority of engineers have been firemen. It has been said, and well said, that the best sea captains come from the fore-castle, that is, they have been sailors, they know a ship, every rope and sail; know a ship from stem to stern, aloft and aloft. They know how to sail a ship, not only when winds and tides are favorable, but they know what to do when the storm god comes down in his wrath and the billows of old ocean are black hills in motion. It is in this sense that a locomotive fireman learns to be an engineer. He learns the machine. He knows her from pilot to throttle. He is the engineer's mate, all the ambitions that animated the engineer when he was a fireman now quicken the aspirations of the fireman. The intimacy is not a matter of fancy but a fact, an association of mutual peril from which, while on the rail, there is no divorce-ment, and in which the fireman is steadily developing into an engineer.

Contemplating such conditions and propositions, we are led naturally to the contemplation of the two great brotherhoods of locomotive engine men—engineers and firemen. The engineer has reached the goal of his ambition, the fireman, with all the energies he can command, is reaching forward for the same prize. The question arises, what interests can the engineer have, that is, as an engineer, that are not shared by the fireman? We know of none—not one. The fireman wants the engineer to receive good wages: if not for the interest of the engineer, for his own interest, because, he too, expects to be an engineer. We do not place the fireman's estimate of the engineer's services upon that selfish basis, but if only selfishness influenced men's motives and actions it is easily seen that self-interest would make firemen stand by their engineers, since they soon hope to be engineers, and just here we remark, and it is worthy of remark, that since the organization of the Brotherhood of Locomotive Firemen, there is not an instance on record where the fireman did not fully recognize the rights of the engineers when those rights were involved, and the engineers sought to remedy any wrong imposed upon them—and here we repeat the caption of this article, that locomotive engineers have nothing to fear from the action of the locomotive firemen when their rights are invaded. In this connection we refer to the strike of the engineers on the Mexican Central Road, where firemen were offered, and could have taken the places of the engineers, but not a man swerved from his loyalty to an unwritten obligation—self-imposed obligation, to do unto engineers as they would like to have firemen do unto them if they themselves were engineers. As a result the firemen on the Mexican Central to a man sacrificed themselves on an altar of their own erection, that of fealty to association, to right, to justice, demonstrating that engineers have nothing to fear from firemen in any emergency when their rights are involved.

Most gladly do we record such facts, and in giving them prominence in the *Magazine* we accord to locomotive firemen a meed of praise justly their due. And we believe the time has arrived when the great Brotherhoods of Locomotive Firemen and Locomotive Engineers, though separate and distinct organizations, must realize that they have so much in common, and that moving in the same line of endeavor and ambition they are bound by ties which neither constitution nor law can sever; that any antagonism is necessarily artificial rather than inherent, and that the growth, power and influence of both ought to be productive of sentiments of good will rather than estrangement.

### Montreal Harbor Freight Facilities.

A DISPATCH from Montreal says: Unless important reforms are made by the harbor commissioners in the rules governing the handling of railroad freight, a gigantic blockade is predicted by railroad men. The matter has been brought to the attention of the commissioners, who have asked the advice and cooperation of the railroads in devising a scheme

by which the immensely increased freightage from the west can be handled. Mr. Shaughnessy, assistant general manager of the Canadian Pacific railway, says: "Even last summer, when we were not handling anything like the amount of freight, we had a larger blockade here every day than at any time in Manitoba this winter. To-day we have upwards of 445 cars at Sault Ste. Marie en route for Montreal, and throughout the summer we will receive at least 150 a day over the 'Soo' road alone. We have only accommodation for 175 cars on the wharves, and as a rule last summer we had a daily blockade of from 250 to 300 cars." It is understood the G. T. R. find themselves in exactly the same position as the C. P. R., so that Montreal must wake up and see that the proper authorities provide more ample harbor accommodation.

#### Grand Trunk Railway and Northern and North-Western Railway.

**SPEAKING** of the fusion of the Grand Trunk and Northern & North Western, the *Railway Times* of England says:

In our last issue we referred to the terms of the proposed annexation by the Grand Trunk Railway of the Northern of Canada and the Hamilton and North-Western systems, and it is satisfactory to record that the arrangement was ratified at the special meeting summoned for the purpose by the unanimous vote of a crowded room. One eccentric member of the proprietary had indeed essayed a "wild shriek of freedom" from directorial suggestion by signing a proxy in opposition to all or any union whatsoever that was, or might be, proposed, but, as he was not apparently disposed to be responsible for the stamp which a thrifty board had hesitated to waste on so foregone a conclusion, his protest came necessarily to nothing beyond provoking a not unnatural curiosity to be informed as to his identity. The chairman considerably covered the retreat of the deserter by a reference to the very slender nature of his holding—a fact which seems to have sometimes a stimulating effect in exact contrast to the presumed moving cause. It would appear that the present "union of hearts" is the consummation of nearly nine years of devoted courtship on the part of the Grand Trunk, which, with varying course, has ultimately ended so auspiciously for the happy trio. Not only so, but the City of Hamilton, which had long stood out against any possible interference with the independence of the Hamilton and North-Western, now approves the fusion as advantageous to its interests by securing a larger and better worked system; whilst the Governor of Ontario, who might possibly have been suspected of a lurking affinity for other interests, offers no opposition to the scheme. Last, but by no means least, so far as considering the arrangement as in any degree hostile to its own position and prospects, the Canadian Pacific regards it from the same point of view as the Grand Trunk—namely, as a medium for the interchange of traffic with Toronto, by Nipissing with the North-West, and elsewhere on mutually beneficial terms, and as forming a bond of union instead of an element of distrust or discord.

By this fusion not only will there be an improvement of communications, but a reduction of expenditure through the acquired lines, while the substitution of the Grand Trunk rate of 4 per cent. on borrowed capital for their liabilities under that head as a higher interest will further tend to a saving of more than sufficient to provide the service of the preference stocks. On the other hand, Sir Henry Tyler remarked that the superior system of the Grand Trunk assured relief from some financial embarrassment on the part of the new lines, and greater consequent certainty as to the exact outcome of their working, a point of some importance to the former, inasmuch as it holds 74,500 of the Hamilton and North-Western preferred stock, which will be naturally rendered at once more marketable and more valuable by the proposed change. As to the ordinary stocks of the acquired railways, which together only amount to 372,451, and which cannot therefore be said in any way to overshadow the 20,000,000 of Grand Trunk ordinary capital, with which it is henceforth to be incorporated, the chairman humorously observed that no one could object to the new comet enjoying the same privileges and extended prospects which were indubitably equally valuable and free from cavil. At the same time he referred to the prolonged labors that had attended the fusion of three independent railways at such a distance from the governing head in the case of the Grand Trunk, for the successful issue of which he accorded an appropriate tribute to Mr. Hickson, whilst he twitted certain other persons with the difficulty apparently surrounding negotiations of a similar character at home.

After this a few individuals whose names appear to be inseparably, although not of necessity, connected with the present position of the Grand Trunk Railway, conceived themselves compelled to offer their individual opinions on certain abstract points of general policy, such as the addition of certain directors to the board, which some contended was sufficiently, if not too large already, the qualification of its members, the desirability or otherwise, of a local board in Canada, and other subjects, most of which would have been more appropriately treated at the ordinary general meetings shortly to be held. Altogether entire harmony of feeling prevailed, and was expressed as to the policy of the board in regard to their new departure, and much satisfaction appeared to be caused by the assurance that whilst extended facilities of traffic would be afforded by the acquisition of the new lines, they are not entangled by any engagements as to extension or otherwise that might hamper the free action and policy of the Grand Trunk.

#### The Additions to the G. T. R. System.

**SPEAKING** of the recent absorption of the Northern & North Western by the Grand Trunk, the *Railway Times* of England says: Those who are acquainted with Canadian railways cannot fail to be impressed with the belief that such an acquisition must prove of great advantage to the Trunk system even if

it stood alone, but the arrangement further carries with it the lease of the Northern Pacific Junction Railway, which has an extension of 112 miles running up from a point on the joint system to the Northern Pacific Road, making virtually 494 miles of road to be taken over. At present the lines are locally important to the Grand Trunk in the matter of exchange of traffic at various points, but when worked as part and parcel of that company's system they will serve to open up direct communication with the Canadian Pacific at Nipissing Junction by the best and shortest route for traffic passing between the peninsula of Ontario and all points on the Canadian Pacific Railway from Nipissing along the main line to Winnipeg and the Pacific coast. It also appears that by means of these lines a good route will be formed in connection with the Grand Trunk system, near the Suspension Bridge at Niagara and the International Bridge at Buffalo, from the Canadian Pacific Railway and the Northern Pacific Railway and the cities of St. Paul, Minneapolis, and Duluth, to New York.

This absorption is not like experimental extensions into new and untried districts. Both the Northern and the Hamilton and North Western have shown that there is work to be done—the former with an experience dating back to 1855, and the latter from Port Dover, on Lake Erie up to Collingwood, Georgian Bay, since 1879. Their value has been materially enhanced by the completion of the Northern and Pacific Junction line, which was only opened throughout in May last year, and which has already shown satisfactory results and promise for the future. A further important advantage will be derived from the use, which is much required by the Grand Trunk Company, of the extensive terminal facilities of the Northern Company in the City of Toronto, whereby, whilst better accommodating the public both as regards passenger and freight business, there will at the same time be a considerable reduction of the expenditure. Under these circumstances there can be no doubt as to the advisability of the step which is about to be taken, the only questions remaining for the Grand Trunk shareholders to consider being those relating to terms, and a perusal of the company's circular in relation to that matter should at once set at rest any doubts on that score. The Northern and the North-Western have both in the past paid the interest on their bonded debts and other charges, and the traffic which they command is a growing quantity.

A NEW YORK Central conductor found \$400 on his tram just before the holidays. Learning of its owner, he wired him to be on hand on the return trip and get the shekels. After the amount was handed over and found to be intact, the loser took a half dollar from his pocket and held it out to the veteran of the punch. Without hesitation the latter held up his hand to the engineer—and shouted "All aboard" sorry I haven't any change for that," stepped aboard the train, leaving the half dollar in the hand that had tendered such a magnificent reward for the return of \$400. *Buffalo Express*



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

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

W. B. CAMPBELL, Publishers,  
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Offices 61 Bay Street, Toronto.

TORONTO, MARCH, 1888.

#### THE LESSONS OF THE STRIKE.

No subject is now so generally discussed in railway circles, either in the United States or Canada, as the great strike of engineers and firemen on the Chicago, Burlington & Quincy Railroad. The American railway journals devote a great deal of space to discussion of the merits of the dispute, each having a very decided opinion as to which side is right and which wrong in the matter. Living in another country in which the railways and their employees are much differently circumstanced from those of the United States, we do not presume to express an opinion upon the merits of the case, leaving that to those who are more deeply interested and whose opinions may have some weight in the dispute. But there are certain general principles involved, which have been more or less discussed, and the consideration of which is a matter of interest and profit for Canadian as well as for American railway men.

The first principle, and that which in fact covers all the others, is as to the right of the men to strike at so short notice as they did. If we read the newspaper reports aright, the men left their locomotives at a fixed hour, regardless of where they were at that time. If this was the case, they did exactly what was done in the case of the Grand Trunk in the strike of twelve or thirteen years ago. Under the antiquated law then in force in Canada summary desertion of employment was a criminal offence, but in discussion which followed led to a law being passed exempting from the criminal charge all desertion of employment save by persons upon whom the public depends for important services, such as this very case. Under the law as it stands the same action which we understand was taken by the "Q" engineers would be a crime. Without discussing the right or wrong of this, it may be pointed out that there has been no strong attempt to further change the law so as to exempt these classes from the criminal list. But many of the newspapers go further and declare that the position of the Brotherhood men is tantamount to an assumption of the right to dictate to employers what wages they shall pay. This is absurd. The men simply decline to work for less than a stated wage, and they would not be free men if they had not a perfect moral as well as a legal right to take this position. Do not the railway companies do the same thing every time they make a schedule of freight or passenger rates? The men sell labor and fix the lowest rate they will take for it; the companies sell transportation, and they exercise the same right of naming their own terms. But there is this difference between railway companies and engineers. The companies cannot absolutely refuse to work without foregoing all their rights, for the reason that they exist by reason of a public franchise guaranteed to them and accepted upon the terms of rendering certain public services. Every engineer on the line would have a perfect right to give up his position and cease work altogether if he chose, and would violate neither legal nor moral rights of others, nor would he render himself liable to any penalties whatever by doing so. Taking this view of the case, such utterances as the following, from the *Railway Register*, seem a trifle absurd:

If to bring to a standstill the business of every community on 6,000 miles of railway does not constitute a conspiracy, we are unable to understand what does. The acts of the engineers partake more of the nature of communism than anything else.

So far we have not noticed that the engineers have engaged in any rioting or threatened violence to those who have taken their places. If an organized effort on their part to improve their wages is to be declared by respectable and intelligent editors to be a conspiracy, what is to be said about a "trunk line arrangement," or any of those numerous devices for keeping up rates on railways. In view of the tremendous effects of such a strike as the one now pending, it is to be expected that American writers will get excited about it, but it would be much better to keep cool and say less until something can be said which can be logically defended.

The fact is that railway employees have a perfect right to decline to sell their labor except on terms satisfactory to themselves. It may be a great inconvenience to many people, but the employee, receiving nothing from these people, is not bound to consult their convenience. It is not a case of absolute refusal to do what is desired, but a conditional one, the condition being the refusal to grant the terms demanded. To compel men to stay at work under conditions with which they do not wish to comply would be tyranny, and enough of that exists under the name of democratic freedom already.

A great outcry is made concerning the power wielded by such men as Chief Arthur of the engineers and Chief Sargent of the firemen. It is true that these men have power beside which that of the autocrat of many a state is insignificant. If that power is derived directly or indirectly from any legislative enactments, those holding it should be held responsible directly or indirectly by the people who make those enactments. But, so far as we are acquainted with the matter, the authority of Messrs. Arthur and Sargent is theirs solely by reason of the belief among the men that they have a common cause, and that these two leaders are best fitted to represent that cause before the world. It is true that even such power may be, as it too often has been, used for the injury of the people. But it has

been wielded by the men in this case for years not merely without objection from any influential quarter but with the greatest acceptance even to those self-appointed formulators of public opinion who now stand in such dread of results. The excuse is that these men have no right to use their power as they have used it. This is simply another way of saying that they had no right to hold their power at all. And yet to deprive them of it would simply be to declare by law that men of one trade have no right to make common cause and elect leaders. That kind of thing may do well enough in Turkey, but it is out of the question in a civilized country.

If it is decided, in view of the importance of their work to the public, to make engineers and firemen responsible in some way to the public for the performance of their duties, the first step is not to demand of them compliance with new and arbitrary laws but to give to them advantages in proportion to the demands to be made upon them. Let them be recognized by the state as lawyers or cabmen are, protected by forms of various kinds from competition and given the right to demand certain emoluments. To attempt otherwise to compel men to yield service at fixed rates is as absurd as it would be to regulate by law the price at which a farmer shall sell his wheat. In this connection it may be noted that the majority of the railway journals assume that the men caused the trouble, and on this assumption they speak of this strike as a "rebellion." One would suppose, to read what they say, that the Chicago, Burlington and Quincy management was the United States of America, to defy whose mandates was treason. How men, born in a free country, can write such nonsense, or even read it with patience, passes our comprehension. An engineer is not bound to continue his work until his employers undertake to change the character of the bargain with him any more than they are bound to continue to employ him at the same terms forever. And it is no more "rebellion" for one engineer or three thousand to quit work than it is for a railway to discharge one engineer or three thousand of them.

Unfortunately, although the Burlington officials are already claiming a victory over their men, it seems all too manifest that the strike is destined to last for some

time yet, and that it may spread in different directions until it becomes the most formidable conflict between labor and capital that the world has ever seen. Consider the parties to the conflict—on one hand, the Brotherhoods of Locomotive Engineers and Locomotive Firemen, two of the richest and most conservative organizations in the world, headed by able and determined men; and, on the other, the vast capital and privilege of the Chicago, Burlington and Quincy and probably other great railways. Chief Arthur of the Engineers said in his pronunciamento on the subject of the strike: "The Engineers and Firemen's Brotherhoods have entered upon a struggle of life or death, and they will exhaust every honorable means to win."

It is not to be supposed that, after such an announcement, a man of such tremendous force as Chief Arthur, backed by his thousands of sympathizers, will give in after a mere skirmish. Depend upon it, the trouble will be far greater before it grows less. In view of all the circumstances, then, it is to be hoped that the American press representing railway interests will discuss the matter calmly and not in the spirit of anger and partizanship which has been too greatly manifested. The eve of a crisis is the very time when the people who claim to lead should make sure that every word is dictated by reason, not by prejudice or passion.

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### Editorial Notes.

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In another column will be found a judicious, fair and complete reply from an American standpoint to the New York *Sun's* rabid attack's upon the Canadian Pacific. What the *Sun* hopes to achieve by its ravings, unless it be to pander to the Anglophobist passions of the worst class of its diminishing circle of readers, it is hard to understand.

It is announced that the "Locomotive Firemen's Mechanical Club," made up of enginemen, has been organized at Chicago, and its declared purpose is, "to bring together the locomotive enginemen of Chicago, for the discussion of all matters pertaining to the management, care and construction of the locomotive." This is an idea worthy of imitation in other cities.

We give this month an account taken from the Montreal *Witness* of the progress of the Grand Trunk, and would commend the same to the careful attention of our readers. Since it was written the Northern & North Western system has been added to the Grand Trunk's already immense property, making it more than ever an example of the pluck and enterprise of its proprietary and management.

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 THE statement in another column concerning the threatened grain blockade next summer, must remind the citizens of Toronto of the state of affairs here last summer when it was stated on the best authority that the Canadian Pacific actually refused certain classes of freight on the ground that they could not get the room to handle them. The Grand Trunk had barely room for its business. With the new works in progress, the Canadian Pacific will secure ample terminal facilities and the taking over of the Northern will greatly improve the situation with the Grand Trunk.

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 THE Trunk lines in the United States have grappled with the under-billing and false classification frauds, and have arranged to establish places at the several termini to weigh and inspect freight. The frauds, it would seem, have cost the railways enormous sums. An example is alleged to have been given by Mr. Blanchard, of the Central Traffic Association, in which there was, by actual weighing, a shortage of 50 tons in the bills on one train alone. If this kind of thing is as generally practised as the Trunk line officials seem to think, the new inspection and weighing stations will pay their cost many times over.

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 THE time must come soon when more attention will be given to the use of railways for a great deal of the traffic now carried over the carriage roads. The work done by the railways in distributing products is one of the marvels of the century, but it is capable of even finer work. The railway of to-day is not much like that which Stevenson constructed half a century ago, and with the increase in the size of locomotives and the weight of cars, it grows more unlike it every day. A return to a road of the calibre of the early railways is wanted in order to do by steam power more of the detail work of transportation



than is now done. Many inventors, perceiving this, are at work upon plans for a light, cheap railway. In America the want has not been so pressingly felt, for the great problem here has been to span the immense distances which exist. The efforts made to answer this problem in America have mainly taken the form of electric motors, and the results so far achieved have been most encouraging. In Europe they have made many experiments in the same line, but have devoted also a great deal of attention to reducing the cost of road-bed and track. One of the latest experiments in this line is a new single railroad opened last month in Ireland. This line exemplifies the Lattigue system. The principal wheels of the locomotive and cars run on a single steel rail about 3½ feet above the ground, with light rails on either side about a foot from the ground to steady the train.

WE call attention to the advertisement in other columns of the great sale of American watches now being conducted by Messrs. Jos. P. Wathier, wholesale jewellers of 178 West Madison St., Chicago, Ill. Aside from the enviable reputation that this firm has built up for itself since beginning business fourteen years ago, the very form of the advertisement is a guarantee of the character of the goods they offer. The watches advertised are standard makes, and by quoting prices of cases and movements separately, the purchaser can be certain of getting exactly the value he pays for. A railwayman's watch is as important to him as the compass to the mariner, and it is not well to take any chances in purchasing an instrument so constantly consulted. It should be remembered that the watches advertised by Messrs. Wathier & Co., are those of standard makers, and a comparison of the prices advertised with those quoted by other dealers for goods of equal excellence will show that Messrs. Wathier & Co. offer some bargains which those in the Canadian railway service cannot afford to neglect.

THEY are establishing a new refrigerator car service between Chicago and Florida, intended to take meat south and fruit north. Instead of ammonia, chloride of ethyl is used for refrigerating purposes. This passes through a mass

of pipes at the end of the car, having the same effect on the air in the car as the ammonia has on water in ice factories. The fluid, in being forced through the pipes, is changed to gas, which passes back into a condenser, where it is again converted into fluid, and by means of the pump is forced back through the pipes, and so on indefinitely, 100 lbs. being all that is required to refrigerate the car for several years. This service is another of the enterprises of the great Armour firm of Chicago. Each car is accompanied by an attendant whose duty it is to push it through to destination as rapidly as possible. The car is supplied with air brakes, and can be placed on any passenger train.

THE telegraph is threatened with rivalry over even long distances by the telephone. The Bell Company has been making long distances all over the eastern portion of the United States. One important branch of the system is very nearly completed, so far as its construction is concerned. That is the line between Boston and Washington, which also includes the cities of Worcester, Springfield, Hartford, New Haven, New York, Philadelphia, and Baltimore. In a short time experiments will be made over this line to determine its exact value as a means of communication. The company had no reason to doubt the ability to satisfactorily telephone to all these places from any one of them, as it has improved instruments capable of transmitting the human voice by telephone over an almost unlimited distance. It seems only reasonable to suppose, in view of the rapid development of the telephone so far, that the day is not far distant when it will supplant the telegraph even over long distances, at least for ordinary messages. With the new telegraph type-writer, press despatches and other messages which require to be read or recorded can always be sent best by telegraph.

A curious decision has been given by the Minnesota Railway Commission, according to the Bradford, Pa. *Era*. This decision is to the effect that the occupant of a lower berth in a sleeping car has the right to have the upper berth fastened up, so long as it is not required by another person. This is clearly a piece of "granger interpretation." Both

berths belong to the sleeping-car company, and the company makes a business of renting them. A passenger has the right to rent two if he desires to do so, and when he rents them can have them disposed of as he pleases, subject to the right of property in them of the company. But if he rents only one and another person rents the other, the first clearly has control over only one. If the company has the right to rent the upper berth, it must have quite as good a right to it and as complete control over it, until it is rented, as the person renting it has after he has paid for it. If the lower berth man has not the right to demand as against the upper berth man that the upper berth shall be closed, no more has he the right to make such a demand against the company, from whom the upper berth man has bought control. We believe in protecting the public against impositions by railway companies, holding that in the end such impositions work out injury not only to the public but to the railways, but the public is only inviting sharp practice and bulldozing by taking advantage of its power to compel the companies to give something for which they get no return.

THE Rapid Transit question has gain become urgent in New York City, although it seems only the other day that the "L" Roads which were constructed, claimed to be the solution of the difficulty for fifty years to come. Nothing will satisfy New York now, it appears, but underground railways, the system which London adopted many years ago. Mayor Hewitt, who was elected by the Democrats as an honest, far-seeing practical man, in opposition to the reactionary tendencies of the Republicans and the revolutionary ideas of Henry George and his supporters, has taken hold of this, as well as other matters, with a firm hand. He has drafted and sent to the State Legislature a measure embodying his plan of Rapid Transit. This measure provides for the incorporation of a Board of three Commissioners to have charge of this branch of the public service. The Mayor is to be the head of the Board, and the other two members are to be respectively the Comptroller and Commissioner of Public Works. To this Board is to be left the duty of arranging for the construction of such roads as may be deemed necessary. From the account before us it does not seem clear

that it is mentioned in the Bill that underground roads are mentioned, but practically nothing else is possible. The contractors to whom the work of construction and operation is to be let are to pay 5 per cent. on the money expended. As New York borrows money at 3 per cent., 2 per cent. will go for sinking fund, which will wipe off the debt in about thirty-five years. At that time the property fully paid for will revert to the city. Already \$3,000,000 or more has been given by the city to assist in making depressed tracks as a means of rapid transit north of the Grand Central Depot, and Mayor Hewitt's scheme, it seems, will make use of the works so created. The scheme is an enormous one, and worthy of the great metropolis, which Mayor Hewitt and his enthusiastic fellow citizens declare is destined ere long to be not only the greatest city in the world to-day, but the greatest that the world ever knew.

**The Grand Trunk's Great Record.**

OWING at first to oversight, and afterward to pressure upon our columns, because of the presentation of the Railway Commissioners' Report, the appearance in RAILWAY LIFE of the following able article, which appeared originally in the Montreal Witness, has been delayed:

The recent completion of the Canadian Pacific Railway has created a great national highway, uniting the two oceans and opening up a vast extent of valuable country. The consideration of the manifold advantages which will accrue from such a novel and gigantic undertaking, tends naturally to obliterate the remembrance of another enterprise which at one time was just as novel and gigantic, namely, the foundation of the Grand Trunk Railway. The old Grand Trunk has often earned much criticism, and probably the harshest knocks on those occasions have been administered in our columns. But thoughtful and intelligent Canadians freely admit that the construction of the Grand Trunk Railway proved to be the pioneer of modern Canadian prosperity, and that the vast railway scheme was not contemplated only as a speculative work, but was introduced by its promoters as a means of developing the enormous resources of the country, and of providing fresh field of enterprise for the surplus populations of the old world.

Prior to 1849 the Canadian Government had expended the sum of \$20,000,000 in constructing canals and improving the lake and river navigation. These grand works, which are ranked amongst the finest waterways of the world, were found inadequate to compete with the simplicity and speed of railway transit, which was then making astonishing progress in the adjacent United States. It became evident that the western trade to the Atlantic

cities was being diverted from Canadian channels, and that a system of railways must be devised which, combined with her splendid inland navigation, would enable Canada to compete with her wealthy and enterprising neighbors. The rapid and easy communication by railway between the great centres of population and trade was felt to be not only advantageous, but also an urgent necessity. A number of the leading men in Canada interested themselves in the matter, and an Act was passed in 1849 by the Canadian Parliament offering guarantees, under certain conditions, to railway companies that might be formed. Owing to the encouragement afforded by this Act, the following railways were commenced: The Great Western Railway of Canada; the Northern Railway of Canada; the St. Lawrence & Atlantic Railway (from Longueuil to Island Pond).

The movement thus initiated was not allowed to drag, and another Act was passed in 1851, making provision for the construction of a "Main Trunk Line of Railway" throughout the whole length of the Province.

In order to facilitate this desirable undertaking, the Government offered substantial guarantees and concessions. The projected enterprise created intense public excitement, as it was felt by all classes to be the basis of Canada's future prosperity. As it was impossible to raise in the colony enough money to carry out such a vast scheme, it was resolved to appeal to the British public.

Fortunately, at that time a decided feeling of security pervaded the English people. Peace was supposed to be permanently established. Free trade had generated great prosperity, and expanded a large home and foreign trade, so that the English were prepared to receive the proposal with favor. Accordingly, in April, 1853, the original prospectus of the Grand Trunk Railway of Canada was issued in London. It proposed to raise a total capital of £9,500,000 sterling for the purpose of completing and constructing 964 miles of track in Canada, extending through the whole Province, and of annexing the "Atlantic & St. Lawrence Railway," a line of 144 miles running through Maine from Island Pond to Portland - making a total length of 1,112 miles. The lines then in progress to be amalgamated were: The Grand Trunk Railway of Canada East, 142 miles; Quebec & Richmond Railway, 96; St. Lawrence & Atlantic Railway, 144; Grand Junction Railway, 50; Toronto & Guelph Railway, 51.

Among the names on the prospectus were these:—Directors in London—Thos. Baring, M. P., and George Car Glynn, M. P., described as "Agents of the Province of Quebec and Directors of the Company on behalf of the Canadian Government." The following names were given as Directors in Canada:—Hon. John Ross, M. L. C., Solicitor-General, President; Hon. Francis Hincks, M. P., Inspector-General; Hon. E. P. Tache, M. L. C., Receiver-General; Hon. J. Morris, M. L. C., Postmaster General; Hon. M. Cameron, M. P., President Ex. Council; Hon. R. E. Caron, Speaker Legislative Council.

The Managing Directors in Canada were Sir C. P. Roney, with S. P. Bidder as General

Manager, and A. M. Ross, Engineer in Chief.

The bonds and shares were eagerly taken up by the British public, and the Company soon had the work in hand. About fifteen thousand men and two thousand horses were engaged on the various sections, and the line was opened from Montreal to Portland in 1853, from Richmond to Quebec in 1854, from Montreal to Toronto in 1856, and through to Sarina in 1859. The total cost of building the line, including the erection of the Victoria Bridge, amounted to about £9,500 per mile.

It was seen from the conception of the enterprise that Montreal would be the natural centre of communication in every direction, and must become the commercial metropolis of Canada. Montreal is the great terminal point of ocean navigation, connected with the St. Lawrence on one side, and the great lakes and western districts on the other. In order, therefore, to make the communication perfect, the Directors determined to build a bridge across the St. Lawrence at Montreal. The services of Robert Stephenson, the eminent English engineer, were secured, and he designed the magnificent structure that spans the St. Lawrence—the Victoria Tubular Bridge. This splendid bridge, which ranks among the finest specimens of engineering skill in the world, was constructed by the English firm of Peto, Brassey & Betts. It contains 6,542 feet of tubes, and, including abutments, is nearly two miles in length. The cost was over \$7,000,000. The first passenger train passed through it in December, 1859, and it was formally opened by the Prince of Wales in 1860.

At the time of amalgamation the rolling stock taken over consisted of 34 engines, 33 first and second class cars, 15 baggage cars, and 459 freight cars. At the present time the rolling stock of the company consists of 709 engines, 361 first class cars, 217 second class cars, 69 post office cars, 131 baggage cars, with 18,005 freight cars and 49 snow ploughs.

The enormous increase of traffic can easily be seen from the following figure:

REPORT FOR YEAR 1854	
Number of passengers	117,806
" tons freight	116,571
Passenger receipts	\$153,920
Mails and express receipts	29,380
Freight receipts	299,290

REPORT FOR YEAR 1887.	
Number of passengers	5,535,097
" tons freight	6,942,194
Passenger receipts	\$ 5,533,555
Mail and express receipts	637,545
Freight receipts	12,216,600

The working expenses in 1854 amounted to \$361,760, and in 1887 to \$12,568,910.

In 1862 the length of the Company's lines in running order was 1,090; in 1872 it was 1,377 miles; in 1882 it was 1,406 miles; and in 1887 it was 1,537 miles, besides 529 leased and partially owned, and 852 miles leased or rented, making a total length in 1887 of 2,918 miles.

In 1862 Mr. C. J. Brydges was appointed Managing Director. He was a man of great energy and capacity, and was indefatigable in endeavoring to relieve the company from finan-

cial difficulties in which it had become involved. This precarious state of affairs was due to the enormous outlay incurred in the construction of the line, and to the depreciation of the stock owing to the commercial depression in Europe after the costly Crimean war in Russia. A commission then appointed by the Canadian Government reported that for the previous three years the expenses of the line had exceeded the receipts. Under his regime the prospects of the Company gradually brightened. They acquired in 1864 the Montreal & Champlain Railway, which connects with the Central Vermont and Delaware & Hudson Railways at St. Johns and Rouse's Point, giving an outlet to Boston, New England and New York. The Buffalo & Lake Huron line over the Niagara River was also absorbed, and other connections made with the Western States railways.

In order to release the Company from its financial difficulties a select committee was appointed in 1861 to appeal to the Canadian Parliament for assistance. The committee based its application on the grounds that two-thirds of the Government aid had been used in the construction of lines which would be only of future benefit—that the members of the Government had introduced and fostered the scheme—that the G. T. R. had done far more for less money than the Government had promised to the previous companies—that the line had already proved of immense benefit to the country, and that the National Exchequer had derived considerable revenue from the operations of the railway.

The Grand Trunk sections had hitherto been utilized as local lines of different gauges with their connections, but arrangements were made to secure a uniform gauge, so as to provide easy and through communication. In 1874 Mr. Joseph Hickson succeeded Mr. Brydges as General Manager, and the uniform narrow gauge was shortly after adopted, with most gratifying success. Mr. Hickson had been sent to Canada in 1861, and had successively filled the offices of accountant and secretary with marked ability and success, and his promotion was a matter of universal congratulation.

Owing to the competition of the various trunk lines in the States, and to successive years of commercial depression, the small dividends paid to the shareholders had been very irregular. In 1881 and 1882, however, dividends were paid on the first and second preference shares in full, and on a portion of the third. In addition to this comparative financial success Mr. Hickson, in 1881, achieved a great victory over the competing trunk companies and succeeded in establishing the freight rates on the basis which he desired. His skillful tact and management, in conjunction with the efforts of Sir Henry Tyler, President of the Company, also effected the fusion of the Great Western Railway with the Grand Trunk, thus securing identity of interest and unity of management. The deed of incorporation was dated 26th May, 1882, and by it seventy per cent. of the net earnings were to be appropriated to the Grand Trunk, and thirty per cent. to the shareholders of the Great Western. The capital of the Great Western at the time

of the union comprised \$19,223,000 in loans and debenture stock, and \$33,110,000 preference stock and ordinary shares. The Great Western Line ran from Toronto to Hamilton, and from Niagara to Detroit, with the control of several connecting lines which added about 1,000 miles to the system.

The Riviere du Loup section of the Grand Trunk Railway, from Quebec to Riviere du Loup, had never been remunerative, and in 1879 the Dominion Government was got to take it over, the funds thus acquired being devoted to the extension of the Western system through to Chicago. The efforts of Mr. Hickson to improve the position of the Grand Trunk have been ably seconded by Mr. W. Wainwright, the popular Assistant Manager, who was first connected with the company, in 1862, as Secretary to Mr. Brydges. The other chief officials, who are highly esteemed for their energy and zeal, are: Mr. L. J. Seargeant, Traffic Manager; Mr. James Stephenson, Superintendent East of Toronto and North Division; Mr. Charles Stiff, Superintendent Southern Division; Mr. E. P. Hannaford, Chief Engineer; Mr. H. Wallis, Mechanical Superintendent; Mr. Robert Wright, Treasurer; Mr. H. W. Walker, Accountant; Mr. J. Fred Walker, Traffic Auditor; Mr. T. Tandy, General Freight Agent; Mr. William Edgar, General Passenger Agent; Mr. H. K. Ritchie, Stationery Agent; Mr. John Taylor, General Storekeeper.

The present Directors are: Sir Henry W. Tyler, M. P., President, London, England; Lord Claud John Hamilton, M. P.; Mr. Robert Young; Mr. Robert Gillespie; Mr. William Unwin Heygate; Mr. James Charles; the Hon. James Ferrier, Montreal, Canada; Mr. John Marnham; Major Alexander George Dickson, M. P. The Grand Trunk line with the lines under control comprises a total length of 2,918 miles, and is divided into two divisions.

The Northern Division of 2,011 miles consists of the following:—Montreal and Portland; Richmond and Point Levis; Montreal and Fort Covington; Mooser's Junction and Rouse's Point; Montreal and Lachine; Montreal and Sarnia; Stratford and Goderich; Galt and Waterloo; Stratford, London & Wingham; Stratford, Kincardine & Palmerston; Warton & Southampton to Palmerston; Palmerston and Harrisburg; Durham and Palmerston; Toronto and Port Hope; Toronto and Midland; Port Hope and Midland; Belleville and Peterboro.

The Southern Division of 907 miles comprises the Niagara Falls and Windsor; Fort Erie and Glencoe; Toronto and Hamilton; Sarnia Branch; Petrolia Branch; London & Port Stanley Branch; Buffalo and Goderich; Georgian Bay and Lake Erie; Brantford and Tilsonburg; Welland and Allanburg Branch.

The North Shore Railway was bought by the Company from the Senecal syndicate in 1883, but from political considerations it was transferred to the Government in 1885.

The lines now in progress are: A line from Fort Covington to Massena Springs, 22 miles, wholly in New York State. This line will connect with the Rome, Watertown & Ogdensburg Railway, giving through communication

to the West. About eighteen miles are now laid with steel, and the whole will shortly be completed. Another line is being constructed by Mr. James Wright, the contractor, from Beauharnois Junction to Valleyfield, to be opened in the spring. It is intended next season to extend the double track as far as possible to Toronto. The work was commenced last year, and is making good progress. Arrangements are being made to commence a new line to the Sault next spring.

Within the last few days the absorption of the Northern & North-Western lines by this company has become an accomplished fact, adding 450 miles to the Grand Trunk system, and the details for consolidation are now in course of preparation. What changes this last acquisition will render necessary cannot at present be ascertained, but the control of these properties by the G. T. R. Company will, no doubt, have a beneficial effect, and hasten the carrying out of the Sault project. The improvements in the service have not been as speedy as the public would like. Still, there has been much to praise. The trains are fitted with improved brakes and couplers, and recently with the new Davis patent safety truck, and splendid sleeping, dining and buffet cars are attached to all the through trains. Quite recently several of the trains have been furnished with steam heating apparatus, which will probably supersede the heating by coal, and are also supplied with electric light and communication. The improved refrigerating horse and cattle cars lately built are well adapted for the transit of live stock.

The number of people directly employed by the Company is about 15,000, besides an innumerable army of temporary hands and others engaged by business firms constantly connected with the Company. About 5,000 mechanics are employed at the various shops along the line as follows:—Point St. Charles, 1,750; Hamilton, 600; London, 400; Stratford, 300; Brantford, 250; Fort Gratiot, 250; Gorham, 100; Portland, 90. In addition, there are nearly 1,700 engineers and firemen.

The shop buildings at Point St. Charles cover an actual space of over nine acres—this being entirely irrespective of the other buildings for freight, general offices and cattle sheds.

Since the year 1880 the Company has built at its workshops at Point St. Charles 130 new locomotives and several thousand new cars of all descriptions, and in addition to this these shops turn out from general repairs per day one locomotive, one passenger car, and nine freight cars.

The shop buildings and running sheds of the Company at the various stations of the line are valued at over \$1,000,000, and the machinery at nearly \$600,000.

In 1851, at the time of the inception of the Grand Trunk, the population of Canada was 2,312,919; in 1881 it was 4,324,810, and is estimated now to be about 5,000,000. The population of the three cities most intimately connected with the line is as follows:

	1851.	1887.
Montreal.....	48,307	192,000
Toronto.....	30,775	128,169
Quebec.....	42,082	62,446

From a comparison of the above statistics it is evident that the Grand Trunk Railway Company has developed into a most extensive railway system. Its roads permeate the best portions of Quebec and Ontario, and have especially helped to convert the latter Province into a splendid agricultural and manufacturing district. Former villages have become cities and towns with a thriving and industrious population, and the various products of previously unknown districts have every facility for their transit. Owing to the rapid and cheap accommodation provided by the Company the natural resources of the country are being extensively developed, thereby greatly adding to the wealth and prosperity of our land.—*Montreal Witness.*

### "Some Lessons of the Strike."

The following communication which appeared in the *Railroad Gazette* under the above title is given to show that the class press of the United States, referred to in our editorial columns, does not raise the sentiment of all the railway superintendents of the United States, and to show that moderate views are held by that class who in the natural course of events oppose the strikers when labor troubles arise:

The necessity of a better feeling between employer and employee must be the lesson learned from the recent strikes. Whether it be a shoemaker or a railroad company, the closer the relation between the employer, or his representative, and the employee, the better the understanding when any differences arise. Organized labor cannot but recognize the fact that labor is but a commodity governed by the law of supply and demand, and so long as the employer can get labor at his own price, none but those directly affected should enter into the controversy, if such exists; and to prevent such controversies there should be a closer relation between employees and employer. Encouragement should be given to such a feeling as would lead every employee to speak for himself, and not, as is too often done, leave his case to be settled by the one who has been selected, through his natural ability as a leader, to act as chairman of the grievance committees. Men are too apt to stand in awe of their employer, and only the impetuous and often hot-headed leader will espouse what, in his individual opinion is the cause of all, while, in fact, he is only airing his own condition.

Labor organized for the mutual protection of its members has a worthy object, but when power is used to fight a well-known principle of supply and demand, all is wrong. This is often because the employer is not acquainted with his employees. Nowhere does this relation need to exist more than between the railroad superintendent and his men. An operating officer is often known by the personnel under him. The proper *esprit du corps* existing among his men with the feeling that he (the superintendent) is one of them, very often smooths over the rough edges and renders the duties of the superintendent more easy; and as a matter of policy the writer wonders that

every wide awake superintendent does not make this his aim, to cultivate the good will of his men and encourage them to come to him when they think they are not treated fairly.

The principal trouble with the Brotherhood of Locomotive Engineers seems to be that all differences between the men and the company are to be settled by a grievance committee, which is frequently composed of men of dispositions quite inconsistent with moderate deliberations and unbiased opinions. Thus we find many advocates of settling all differences by arbitration, because the hot-headed leader of the grievance committee and the official of the company cannot agree (and quite naturally), while if the individual opinions of the men could be had, and the question be put to a vote with the majority to rule, we should seldom hear of a strike. Their case is indeed a desperate one when the engineers attempt to dictate to their own company what freight shall or shall not be hauled, when they expect to be paid regularly for their services, and yet will not allow the company who employs them the means of earning their wages. Aside from all state or inter-state laws, railroad companies should maintain their rights and not submit them to their men to act upon. If the railroads would take a lesson from the Brotherhood and be as loyal among themselves, there would be no danger of the present trouble spreading; but they are too vacillating in their actions and too prone to be governed by their own notions rather than by what seems, to the majority, to be the best for all concerned. SUPERINTENDENT.

### American Attacks on the Canadian Pacific.

MENTION was made in RAILWAY LIFE, some time ago, on the attacks made upon the Canadian Pacific in the *New York Sun*. The *Railway Register* published the most vicious of the *Sun's* articles, and commenting on it editorially, says: We give space this week to an article that appeared in the editorial columns of the *New York Sun* last Saturday, in which that paper calls upon this Government to stop the building of the International Railway across the State of Maine. The point sought to be made in the article is that, because the International Railway will permit the Canadian Pacific Railway to cross United States territory in transporting traffic from one portion of the Dominion to another the operation of the line is inimical to the best interests of this country.

As far back as 1871 the State of Maine chartered the Penobscot & Lake Megantic Railway Company. Ten years later the State changed the name of the road to the International Railway Company of Maine, and authorized it to sell or lease its road and franchises to any domestic or foreign company. The Canadian Pacific bought out the International Railway Company of Maine, and is now completing the line.

This, briefly, is the statement of the charge made against the Canadian Pacific Railway Company, which the *Sun* deems worthy of the immediate action of this Government for the

abatement of construction. One ignorant of the facts might be led to conclude from reading the *Sun's* editorial that this offense is new in kind, and fraught with terrible consequences.

But if Maine has erred in this instance, she has another sin to answer for. In the Official Guide, as well as all the published statements of the Grand Trunk Railway of Canada, that company's eastern terminus is given at Portland, Me. And pray, how did this foreign corporation come to own 170 miles of road on New England soil?

Maine, New Hampshire and Vermont chartered three railway companies in the years 1845, 1847 and 1848 respectively, which were consolidated under the name of the Atlantic & St. Lawrence Railroad Company. In August, 1853, the three States sanctioned the leasing of the Atlantic & St. Lawrence Railroad to the Grand Trunk Railway of Canada for a period of 999 years, which was, in effect, a sale of the entire property to a foreign corporation. And not only so, but the Atlantic & St. Lawrence Railway lacking about a score of miles of reaching the Canadian border, the Grand Trunk was authorized to build up the gap on United States soil, which it did, issuing £300,000 of its own bonds in payment of the same.

Thus it appears that Maine began to exceed its legitimate powers more than a quarter of a century before the act was committed of which complaint is here made. And New Hampshire and Vermont were guilty parties as well.

But to come down to more recent times, the Grand Trunk of Canada purchased the Chicago & Grand Trunk Railway, extending from Port Huron, Michigan, to Valparaiso, Indiana, in 1879, two years before Maine authorized the sale of the International to the Canada Pacific; and in 1880 the Grand Trunk of Canada built an extension from Valparaiso, Indiana, to Chicago, Illinois, a distance of 55 miles.

As to the mere matter of having a railway line operated by a foreign corporation, the case of the Canada Southern, which forms a link on foreign soil for the New York Central and the Michigan Central, on United States soil, is a fair parallel to the instance under consideration. The Canada Southern Company, chartered in Canada, and controlled by the VANDERBILT interest, presents conditions exactly like those of the International Railway Company, chartered in Maine, and controlled by the Canadian Pacific.

The talk about the "seizure of the soil of the United States" must certainly be taken as ironical, for every school boy knows that neither citizen nor State can alienate the soil of this country. Even the *Sun* will not contend, we believe, that, because foreigners own the stock of our railways, and dictate their policies, they therefore seize in any obnoxious sense the right of way.

We think a fair hint as to the animus of the *Sun's* article is afforded in the words, "Of all the ports in the world Louisburg is the nearest to Liverpool." It is by crossing the State of Maine to Louisburg, on the Island of Cape Breton, that the Canadian Pacific secures a short line from ocean to ocean. And now that

the "Sea" line is open and doing business there is a large probability that much of the export grain traffic from the North-west, which formerly went to New York, may reach tide water upon foreign soil.

We would be sorry to pass harsh judgment, but the article under discussion seems to be marked by greater loyalty to the port of New York than by either breadth of vision or naturalness of conclusion.

### Canada Does It.

THE *Canadian American* says: In the report presented by Congressman Plumb, of the committee in charge of the Illinois ship-canal bill, there occurs this passage:

"As is well known, England has been enlarging and deepening her canals on Lake Ontario on a plan that contemplates not less than fourteen feet depth. We have no gun-boats on these lakes, nor can we put them there under existing treaties. If it be good policy for a nation to prepare to defend its commerce why not secure the opening of a channel which will enable us if necessary to transfer as large boats and as heavy ordnance as any other power can, and thus be ready to meet any enemy on at least equal terms."

England is not enlarging her canals on Lake Ontario. She does not trouble herself about those very valuable waterways. The country engaged in that highly laudable enterprise in Canada, and she is carrying on the work for purely commercial reasons. It will not be her fault if in the years to come they are used to float ships of war. Canada has mapped out for herself a peaceful mission on this continent, and means to fight it out on that line, if Americans will let her. If Congressman Plumb imagines that Canada's canals are a menace to the peace of the United States he is at liberty to think so. But he should not labor under the delusion that England builds the Dominion's township schools, or even the canals.

### Canadian Pacific and St. Andrews.

A DISPATCH from Bangor, Me., says: Last fall it was stated that the great Canadian Pacific would ask at the next Legislature for a charter from Mattawaumkeag to the shores of the St. Croix river, and then for permission to build a bridge across that river, with a view of making St. Andrews the sea terminus of that great trunk line. It was also shown that the American side at Robbinston would be utilized as a port of shipment for the products of Aroostook County. At that time publications and railroad men thought and said that it was a visionary scheme, but recent developments point now quite plainly to the truth of the assertion. St. Andrews, it should be remembered, is one of the oldest towns on the American continent, and for years has been a quiet burg, full of interest, it is true, yet little thought of save as a summer resort for wealthy Canadians who divided their time between that place and Campobello Island, opposite Eastport. Now, and suddenly too, there has come to it a "boom" in real estate, and at the bottom of it

are Canadian and State of Maine capitalists, who are in a position to know just what the Canadian Pacific people intend to do. Among the gentlemen who have invested are General Manager Cram, of the New Brunswick Railroad, C. Vennie Lord, of Bangor, and Sir Leonard Tilley, Canada's Minister of Finance. The syndicate has bought an island and 11,000 acres of land, and although they do not yet show their hand, there is but little doubt that the much talked of terminus to the Canadian Pacific is settled in their minds. There is great excitement in the little town of St. Croix.

### A Chaperon on the Pennsylvania Road.

THERE is one woman in Philadelphia who has a position that has made many of her woman friends turn green with envy. Her name is Mrs. H. F. Bender, and she is employed as a "chaperon" by the Pennsylvania Railroad Company. It is the only position of the kind in the country.

Last September Mrs. Bender passed a civil service examination for a position in the pension office at Washington. "I haven't much faith in civil service," she chatted yesterday, "and I was very much surprised, although my average was over 90, to receive the appointment to a \$900 clerkship. Mr. Boyd heard of it, and sent for me to come and see him. He told me of the position they intended to make, and said that if I would take it they would pay me more than the government would. It is needless to say I accepted his offer. Here is my card," and she handed her visitor a neatly engraved piece of pasteboard:

"Mrs. H. F. Bender, Chaperon Pennsylvania Railroad Company, Philadelphia, Pa., 223 South Fourth street."

"My salary is \$75 a month," continued Mrs. Bender, "and my expenses are paid, and my work is to go off on these delightful trips all over the country, when other folks have to pay. This position is entirely a new one, and it is a hard matter to give just yet a detailed description of what the duties are. Still I think I can give you some idea of them. These trips, as a general thing, begin at night, and that evening I go through the train, which is always a vestibule string of Pullman cars, and introduce myself to the ladies. I tell them where they can find me if I am wanted, and explain that I am there to give them all the information and help in my power. The next morning, after they have had a good breakfast, I visit them again, and by evening I generally have them all acquainted. Before we start out on a trip the tourist agent, Mr. Draper, goes over the route, gathering up all the needed information. He gives me points about the trip beforehand, and I inform myself of everything that will be of interest to the ladies. I ascertain where will be good places for them to stop in any of the towns we stop at: where they can see the prettiest views, and specially do I devote myself to those who have no escorts.

"On my first trip there was an old lady 70 years of age. She was entirely alone, but said that she saw the company would have a lady employee with the party, and so determined to

come; and she enjoyed herself, too. It frequently happens that young girls are desirous to go on these trips, and it is not convenient to any members of their families to go with them. Knowing, however, now, that they will be looked after, their friends can have no objection to their going. I am really somewhat of a surprise to most of the tourists, but the ladies all think the plan is an excellent one.

"In a very few days I will start off for Florida with a party, and expect to travel all over that state. My work has been a source of much curiosity to many ladies I know, and some of them have expressed great anxiety to know just what I have to do. I think in time the tourists' trips will assume such proportions that there will be several chaperons employed, but at present I am the only one. My labors so far have proved very pleasant, and you must admit they are rather novel."—*Philadelphia Press*.

### The Great North-West Traffic.

THE *Railroad Gazette* says:—The traffic through the Suez Canal for 1887 amounted to 5,903,024 registered tons (net). In the *Railroad Gazette* for March 4, last year, we gave a table comparing the registered tonnage passing through the St. Mary's Falls and the Suez canals from the time of opening each: The first was opened in 1855, and the Suez Canal in 1870. One year after its opening, the registered tonnage through St. Mary's Falls Canal was 101,458. In 1871 it was 752,101, and the tonnage through the Suez was 761,467. In 1882, the first year after the enlarged lock of the St. Mary's Canal was completed, the tonnages were 2,468,088 and 5,047,809. For the last two years they have been: For the St. Mary's Falls Canal 4,219,397, and 4,897,288; for the Suez Canal 5,767,656, and 5,903,024.

That is, the traffic of the Suez Canal has increased 2.4 per cent., and that of the St. Mary's Falls Canal 16.1 per cent., and the latter is now doing in seven months nearly 83 per cent. of the business done by the Suez Canal in twelve months.

### Polite, But Decided.

ONE afternoon recently, when President Corbin was undergoing the pointed examination of the Congressional Committee, he alluded to the fact that he thought it would be unjust for the Committee to take peremptory action without first visiting the mines.

"Oh, don't you worry about that," said Chairman Tillman, "we propose going to the mines to make inquiries."

"Well," Mr. Corbin said, "if it is your purpose to do so we should be pleased to furnish you with the best railroad accommodations without any expense."

"That's very kind, Mr. Corbin," said the genial South Carolinian in a broad Southern accent, "but the United States have furnished us with plenty of money to see us through. And again we don't want to be under obligations to any one. This is an impartial inquiry."—*Philadelphia Bulletin*.

### Wild Cat Railway Enterprises Ended.

THE following is from the *Iron Age*. It is a good thing if true. Is it true of Canada? We doubt it. The fact has been frequently emphasized during the past year that the new railroad mileage built in 1887 was principally constructed by old companies. In other words, there has been practically nothing of the wild-cat enterprises which characterized the boom years of 1881 and 1882. It is naturally asked whether railroad construction in the future will be as largely controlled by those who have already large interests, or whether it is possible that there may again be years when the public will be eager to buy bonds, with stock thrown in, whoever may offer them. Have the times passed by when a small set of individuals, by taking the initiative, can put through schemes of doubtful merit or having only a shadowy future? We incline to the belief that the concentration of railroad mileage into great systems managed by men of wide experience, keen foresight and indomitable energy will tend to confine new enterprises to the operations of comparatively few leaders. Railroad managers have learned from bitter experience that it pays to lead in developing new territory rather than be driven to expand by unscrupulous or over-sanguine speculators or promoters. They have been acting on that conviction, and it has to some extent had the effect of making capital timid concerning ventures which come from other quarters. It is naturally inferred that if an established system does not find enough inducement in opening new territory, then the prospects of success for outsiders must be precarious. Projects arising from a desire to share in particularly remunerative traffic, or to force an older road to buy out a new aggressive rival for the sake of peace, have not met with enough success during the past few years to encourage similar ventures. It is probable, therefore, that the work of extending our railroad mileage to meet the requirements of a growing country will become more and more centralized in a few hands, a tendency which cannot help being beneficial to the country at large, so far as it is concerned in cheap construction and a reduction of losses of capital invested.

### The Eastern Blizzard.

CANADA escaped the March blizzard with comparatively little delay in railway traffic. This is how the *Railway Age* summarizes the state of affairs prevailing in the East: A terrible wind and snow storm, the worst ever known, swept over the eastern states last Sunday night and Monday, which has resulted in great losses to railways. The snow was piled up in huge drifts, completely blockading the tracks, the traffic was entirely suspended for several days on some of the roads in New York, Pennsylvania, and other states. Much stock was frozen to death and passengers experienced not a little inconvenience from delays, etc. New York City, Philadelphia, and Washington were completely snowed in and no trains were able to either enter or leave

any of those cities for more than twenty four hours. It continued snowing throughout Monday and Tuesday and on many of the roads traffic was entirely suspended for three days. Miles and miles of telegraph poles were swept down, thus cutting off telegraphic communication between many points. People living in suburban towns who started for New York Monday morning had a terrible experience. Many trains were snowed in a few miles from the city and the passengers were compelled to sleep in the trains or wade through the snow to some village to seek shelter. A number of persons are reported to have perished in this way. The Chicago limited vestibule train on the Pennsylvania road was blocked for an entire day near Harrison, N.J. The west bound fast mail train leaving New York Sunday night did not reach Newburgh till Wednesday. The storm was undoubtedly the most severe ever known on the Atlantic coast, and the loss and suffering it has caused are almost incalculable.

### An Ancient Ship Railway.

IN view of the revived agitation for the Thenautepec and other ship railways to carry vessels bodily over land from one body of water to another, the following from *Harpers Magazine* is of interest as bearing upon the feasibility of such a scheme:

The most successful and formidable expedition ever undertaken for the transportation of heavy freighted vessels overland were those of the Venetian Republic in 1438-9, under the engineer Sorbolo. The city of Brescia, which had given its adhesion to the Venetians, was closely besieged by the Milanese, and every device for its relief seemed to be hopeless, as the enemy had entrenched himself in winter quarters upon the intervening mountains, and had a formidable flotilla in possession of Lake Garda, the largest of the Italian lakes, some thirty-five miles in length by about eight in width, and 320 feet above the sea. To send an army by land the Venetians would be compelled to make a detour around the northern end of the lake, and then force their way through the mountains. But such was their well-known powers upon the seas that to possess themselves of Lake Garda would be to throw dismay into the camp of their enemies, and open out an unobstructed route to the beleaguered city.

The most learned and experienced engineers of Venice had discussed for many days, in the presence of the senate, a variety of expedients for effecting the desired object, and the one finally adopted surpassed in boldness anything of the kind that had ever before been attempted. It was nothing less than to convey a formidable fleet of some thirty well-armed war ships bodily over the mountains and launch it upon the lake, unobserved by the enemy.

The platforms and cribs were put together and secured under the vessels as they rode at anchor, the oxen were attached to the cables, and one after another the largest of the vessels were hauled high and dry upon the shore. It required six hundred oxen to draw each of the

larger galleys out of the water, but half the number were sufficient to move them on the land. Their appearance on the shore, with their tall masts towering far above the trees of the forest, presented a remarkable spectacle. The singular procession was soon in motion, however, marching slowly and steadily through the country, leveling a road before it as it proceeded, until at the base of Mount Peneda, which rose abruptly in the way, and seemed to interdict all further progress. Here appeared to be an insurmountable obstacle. But Sorbolo's plans had taken it all in, and with a small party of his peasants and soldiers, armed with picks, spades, and axes, he proceeded to the bed of a small mountain torrent, and having diverted the stream, soon leveled a road to a less abrupt activity, and after a few days of needful rest the expedition was again cheerfully in motion, singing their songs of triumph as they went. The windlasses were now put into requisition, and the oxen driven around by another route. One mile only of this ascent was to be accomplished, and the men soon discovered that there was nothing impossible in the plans of Sorbolo.

Before the close of February every vessel floated quietly in the harbour of Forbole, less than three months having been consumed in the journey, half of which, it must be observed, were occupied in encountering the adverse currents of the Adige.

### Showing Number of Train.

THEY are still learning from Canada. This is what the *Railroad Gazette* says: The use of some device for showing on some part of a train its number for the benefit of station agents, operators and men of other trains, would seem to be one of the first things to think of in the present American plan of train running: yet we know of but a single road in the United States that uses anything of the kind, and that one is in New England, where old foggies are generally supposed to dwell. Quite lately there are others, but we do not recall any, and several old officers of whom we have inquired know of none. The Grand Trunk has for years used metallic numbers hung across the face of the headlight, and both that road and the Eastern (Boston & Maine) express great satisfaction with their use. They cost but little, about \$2.50 per engine to start with, and but a trifle for maintenance. The Eastern requires the conductor to see that the engineman affixes the number at the beginning of a trip, and also has numbers in the turret of the caboose. The Grand Trunk requires engines running light as extras to exhibit their own number prefixed by a cypher (0). Identification of trains by written or oral communication between conductors, is a somewhat onerous practice to keep up properly, and if it is likely that the display of numbers as employed by the roads named, can be safely used as an aid to the abolition of the practice, the experiment is well worth trying. The Grand Trunk places entire dependence on the reading of these displayed numbers for identification of trains. Another thing done in Upper Canada is the running of extras and sections without a flag of any kind on the en-

gine. Possibly the use of metallic numbers is one of the features that enables this to be done, and that it could be made a means of economy by reducing the expenditure for white and colored flags and lamps.

### A New Electric Light.

THE *Railway News* of London, England, has the following description of the latest effort to solve the problem of lighting trains by electricity. On the occasion of opening the new line to Bournemouth, recently, an opportunity was afforded for testing the value for railway lighting purposes of Schauschieff's patent.

By the process which it is sought to introduce, each lamp, as in the present mode of oil lighting, is self contained, and produces its own light, while the lamps can at the same be connected each with the other throughout the whole length of the train, and any single lamp on the whole series is under the control of passengers, the guard, or driver of the train. The electricity required for lighting is produced by chemical action as distinguished from mechanical friction. There is no place in the system for dynamos. The well-known chemical laws of affinity and attraction in chemical substances lend themselves to, and become the reliable agents for the production of artificial light. Mercury, in other words quicksilver, and sulphuric acid have a strong and mutual attraction for each other, and, under certain conditions of heat, the two substances brought into connection form "sulphate of mercury." But sulphuric acid is frail in her attachments, and will break its most intimate alliances in favor of any other substance for which she indulges a greater fancy. Strong as may be her liking for mercury, she prefers zinc even to that substance. The chemist, aware of this volatile, or inconstant character of the said acid, plays the part which in social life would be considered as reprehensible and introduces zinc for the purpose of bringing about a dissolution of the union between sulphuric acid and mercury. These substances are blended into a solution, and into this solution thus formed zinc is introduced, the substances are divorced, the mercury is precipitated in its metallic state, and a new combination of sulphate of zinc is formed. The precise action which takes place when the separation of the mercury and the sulphuric acid, and the union of the acid and the zinc is effected, is unknown to the electrician, but the forces which have been brought into requisition for supplementing or forming new combinations is presented in what is called electrical energy.

In order to generate and make useful the electric agency which has thus been called into activity, several things are, of course, required. First of all there is the lamp for the carriage. It is a matter of considerable importance that in the process which we are describing the existing railway oil lamps can be adapted for the electric light. The light burns in the glass portion, and the battery is enclosed in the cover of the lamp. The battery is formed of six or more cells, into which the liquified sulphate of zinc is poured. Into this the "ele-

ments," as they are termed - that is to say, the zinc plungers and the carbon plates - are immersed, the lid is screwed on, and all that is necessary for obtaining a light which will burn brightly, and with the intensity of as many candles as may be required, is obtained. The trouble and waste of time in cleaning and trimming the present lamp are greatly reduced, and an economy effected in this department, which, assuming that the successful experiments a recent date on the South-Western are realised by further experiments, will result in a saving of railway expenses which will have a not unconsiderable effect in increasing the funds available for dividends on our railways.

The cost of the new mode of lighting cannot, of course, be ascertained from the one experiment recently. But there are some facts which may be usefully remembered in this connection. A gallon of the prepared sulphate of mercury is said to cost four shillings. The mercury, which is precipitated in a metallic form by the action of the current, having served its purpose, is worth three shillings and sixpence, and may be made usable over and over again for the purpose to which it was first applied by Mr. Schauschieff's patent process. Its power of attraction does not pale with age - the divorce is free to contract fresh alliances - it may diminish slightly in bulk, owing to the difficulty of collecting all the particles, but it will still retain its power to unite with the sulphuric acid, and, untaught by experience, retain its hold upon the substance until the more powerful attraction of the zinc dissolves the union. So far, then, as we may judge from the trial trip made recently, we are justified in forming the opinion that this particular mode of electric lighting has the merits of economy; of readily adapting itself to the present oil lamps; is bright, steady, and efficient in its luminous qualities - for with two lights in a saloon carriage ordinary print could be read with ease - and finally a train may also slip carriages at any station without the light being extinguished, which is not possible with the present accumulators. The system has the further advantage that it dispenses with the use of the expensive dynamo, of all mechanical appliances, avoids the conveyance of several tons of dead weight, as was required for the accumulators, and is not dependent upon the continuity of connecting lines. We hope to see the process fulfil the pleasant promises made.

THE Northern Pacific road is the only road that owns what is known as a rotary snow-plow. This road has four of them, and considers itself as very fortunate indeed that it does. This snow-plow is a new invention. They can clean the track right along at the rate of about twenty miles an hour, and it makes no difference whether the obstruction is snow or ice, as it works right through both. Notwithstanding the fearful snow of this season, the Northern Pacific has been kept open nearly all the time since the plows arrived. It looks now as though the rotary snow-plow had solved the question of how to clear the roads in the winter.

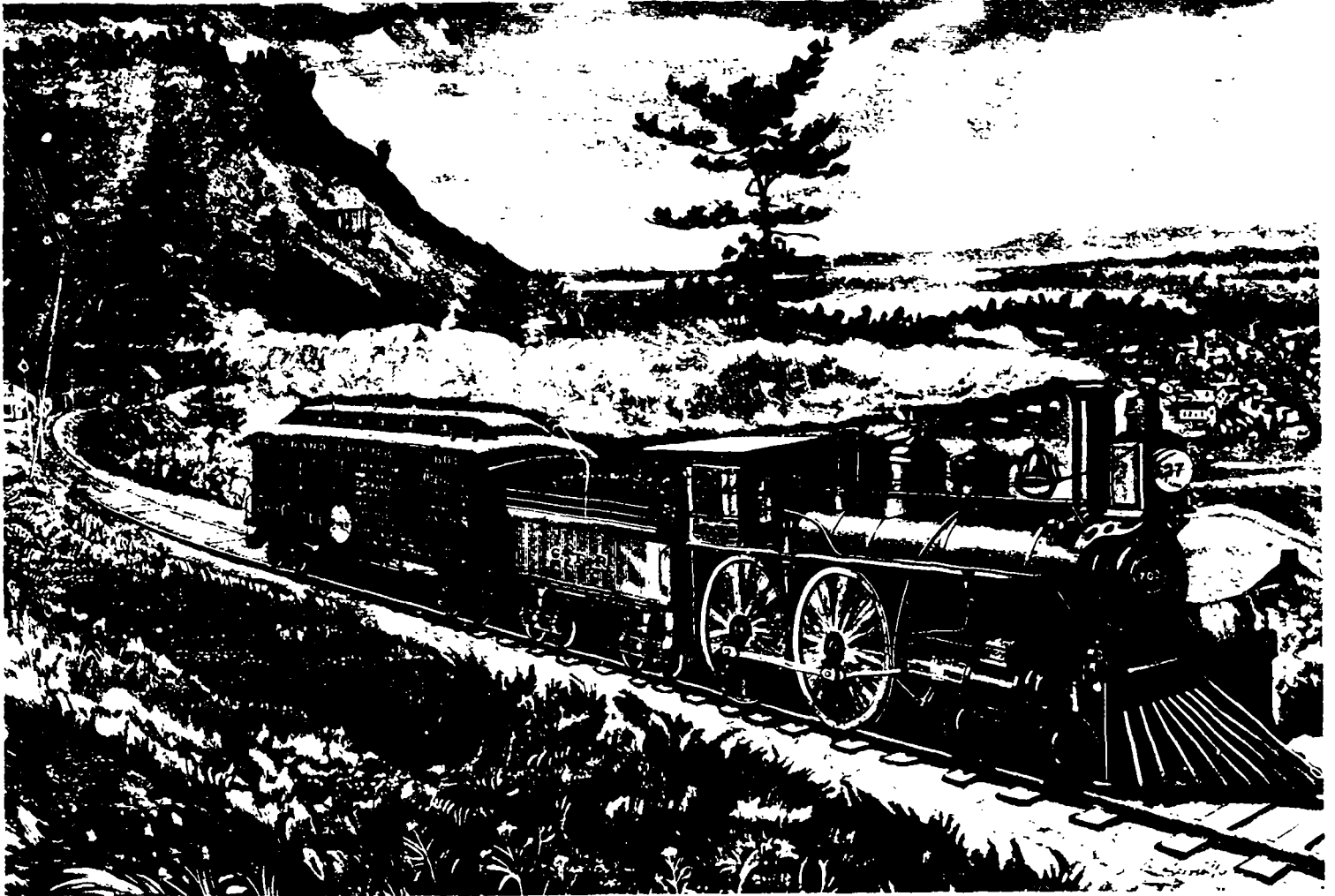
### Night Operator's Friend.

MANY people would wonder how it was possible for an operator to exist at some of the out-of-the-way stations, where faces are seldom, if ever seen, except on swift-passing trains. A telegrapher finds much comfort in the ticking of his instrument during the still hours of the night, when the majority of people have retired. Perhaps the greatest comfort the night operator who has but little duty to perform, is a checker board and skillful players along the line. I once labored nights on a road on which there were some thirty or forty night offices open. After a certain hour the signal was given and out would come at least twenty numbered checker boards. The most skillful player would play some twenty or thirty of the boys at a time, and often badly beat the combination. I have played checkers with a friend from four to six hours at a stretch to pass away the time. The distance separating us was 265 miles, but the telegraph annihilated this space and the excitement was as great as though he was at my elbow. I would laugh at his weak moves and he would poke fun at mine. We kept up this friendly relation for a period of over three years, without ever meeting each other. We finally did meet; we were introduced without either recognizing the other. This is a very common occurrence among operators, and their individuality is only discovered after, as the boys say, considerable "shop talk" has been exchanged. -- *Electric Age*.

### Brakemen in a Blizzard.

I TALKED with the engineer as I came down, and he told me that the storm in Dakota was the fiercest ever known. He had seen several of the train hands as they came into St. Paul, and they gave a terrible account of the state of affairs. All freight trains had been abandoned, and it was utterly impossible to find men to man them. It is hard to see how any one could stand the exposure to which the freight brakemen are now subjected. The brakes must be put on constantly, which involves crawling along the narrow footboards on top of the cars, which are coated with ice and snow and exceedingly slippery.

With the wind blowing at 50 miles an hour, and the train butting its way through the snow, it is impossible for the brakemen to maintain an upright position, and they are obliged to crawl from car to car on their hands and knees, handle the cold iron with the thermometer 40 degrees below zero, and remain exposed to the storm for hours, as they never have time to go to the caboose. The men have no shelter beyond what they can find by clinging to the ladders between the cars, and suffer fearfully. The engineer told me that dozens of men had frozen their hands and feet, and that finally several crews had refused to work longer and had taken shelter in the caboose. It is a well known fact in the North-West that scarcely a freight brakeman works more than a year as the experience of one winter is such as to make them prefer anything to repeating it. -- *St. Louis Post Dispatch*.



View of "The Globe" Train passing Dundas Station. Runs Daily between Toronto and London



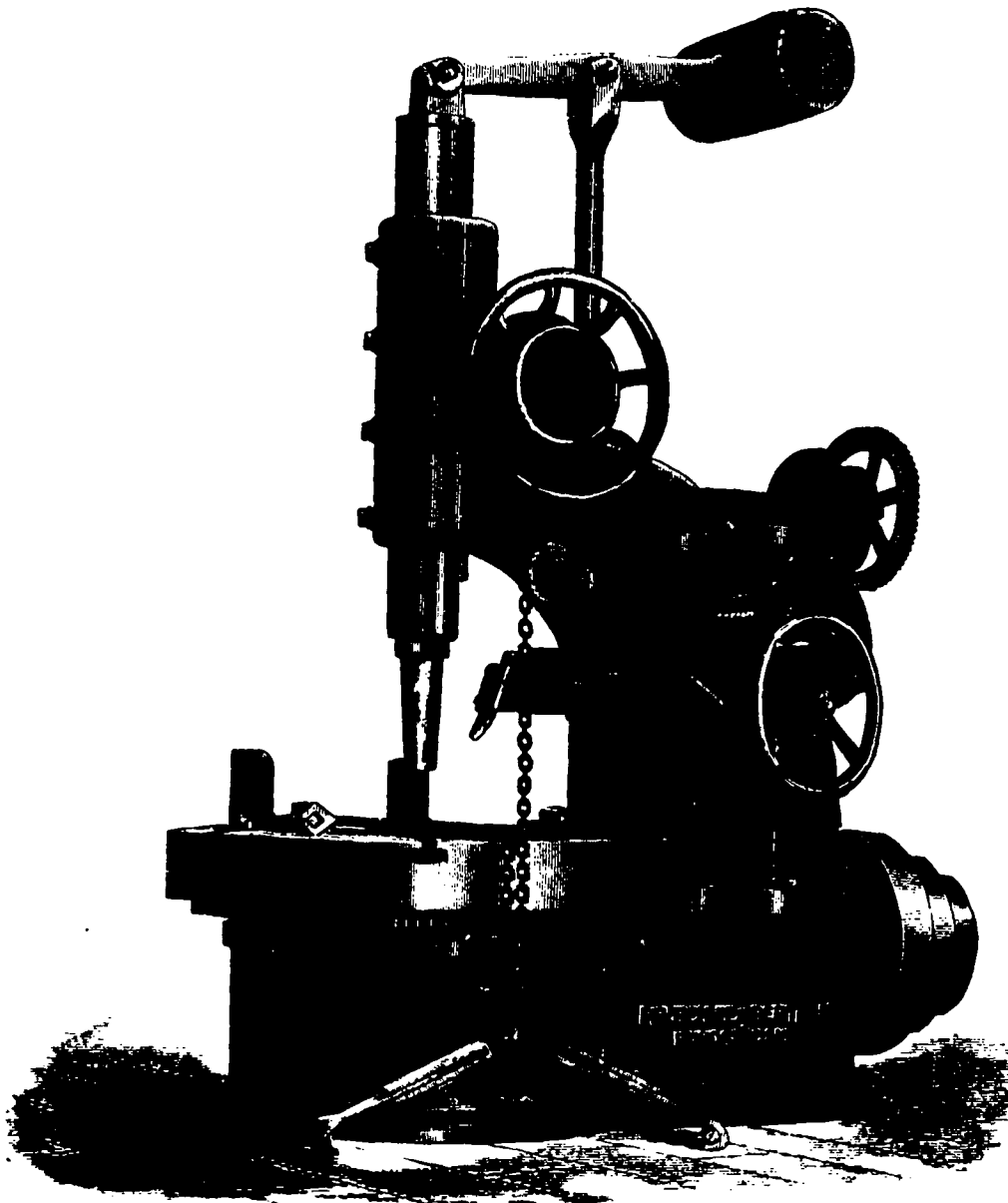
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and Matching  
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Planers.  
Moulding  
Machines,  
Morticing  
Machines.



Tenoning  
Machines.  
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Lathes,  
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Dressers.  
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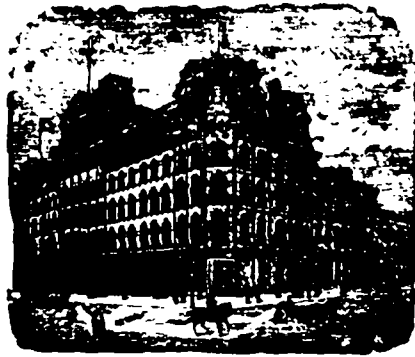
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