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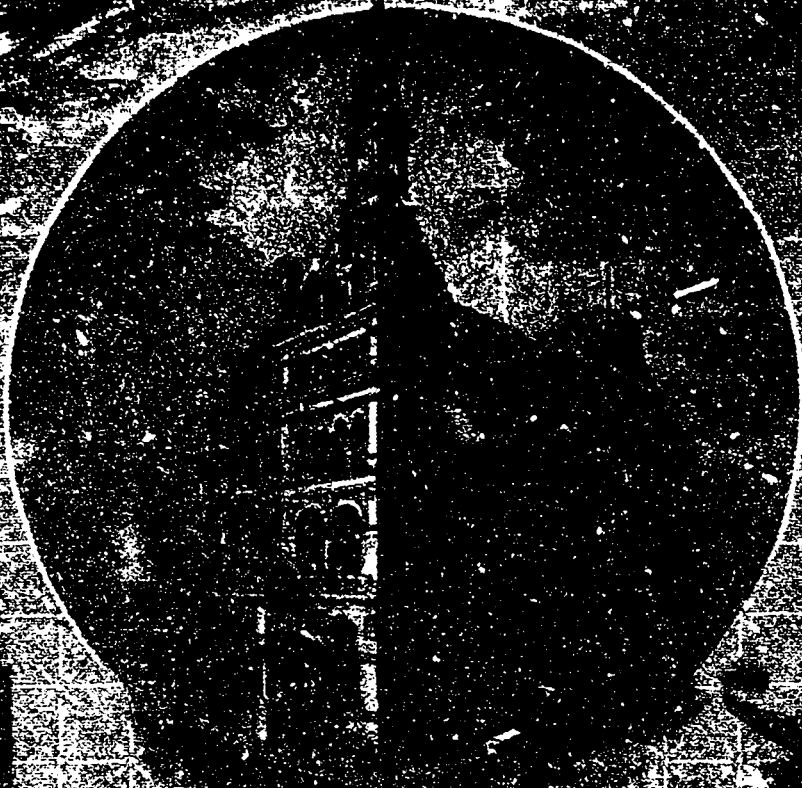
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VOL. II. No. 12

DECEMBER, 1887.

Railway
TORONTO, ONTARIO.

WESTERN Assurance Co.



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MARINE

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RAILWAY LIFE

A MONTHLY JOURNAL CANADIAN

DEVOTED TO RAILWAY INTERESTS

Vol. II.]

TORONTO, ONT., DECEMBER, 1887.

[No. 12.

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THE Canadian Pacific entered Sault Ste. Marie (Canadian side) on the 29th of November. There was great rejoicing among the people of the city.

THERE were more cattle exported last year than in any year since the trans-Atlantic trade was opened, but the prices were not satisfactory. The transportation rates were cut very low by the steamship companies, enabling the shippers to come out fairly well.

THE Kingston and Pembroke Railway Company offer to build a branch line from Renfrew to Eganville as soon as bonuses to the amount of \$6,000 per mile are forthcoming. The government has already given \$3,200 per mile.

The old-time practice of naming engines is coming into vogue again on some roads that long ago abandoned it as foolish. There is no doubt that the public like the idea, and a hundred people will talk about the feats of the "Quickstep" that would never remember the 194 for four days. In the passenger service we believe it pays.—*Locomotive Engineer.*

A CHICAGO special says Despatches from numerous points in Dakota and Kansas state that the demand for coal far exceeds ability of the railroads to supply, and in case of severe weather a coal famine may ensue.

SAYS the *U. P. Employee's Magazine*—In answer to several inquiries we would state that a "trust" is a new name for an old game. It is a new substitute for the vulgar term "pool." As robbery receives public sanction and becomes respectable it is entirely proper to clothe it in polite language. By and by gambling will be termed distributing alms, and guzzling champagne will be known as partaking of the Lord's supper. This is an age of progress.

A SAD case of sudden death on a train occurred on the Canadian Pacific train from New York, on Monday, 19th inst. Miss Lyman, a Montreal lady, who was returning from a sanitarium in Elmira, where she had much

improved in health, was one of the passengers in the Wagner car. She retired apparently in good health, but died in her berth, being beyond mortal aid before it was known that she was in danger.

A DESPATCH from Essex Centre says The Leamington and St. Clair Railway has been purchased by Jas. Ross, late manager of construction of the Canadian Pacific Railway, and now a contractor for the company. This railway runs through the best portion of western Ontario, and since its opening for traffic has developed business far beyond the expectation of its promoters. Mr. Ross is well known in connection with the Credit Valley and Victoria Railways. Mr. Louis Wigle, the president, will retain his position.

TRAINS telegraphy is one of the conveniences that will at an early day be placed at the service of the travelling public. The success of the process is now beyond question. The sending and receiving of messages in a car while running at the average speed of express trains in America, is easily accomplished with as great accuracy as if sent from the regular telegraph offices. Business men of all kinds will esteem this a great convenience, and will choose the route having the advantage of train telegraphy when possible. This present luxury will soon be a necessity.

A WRITER in *Science* gives an interesting description of a natural bridge almost as remarkable as the Virginia curiosity, spanning a canyon about twenty miles north of the point where the Atlantic and the Pacific Railroad crosses the boundary between New Mexico and Arizona. This bridge is sixty five feet long and fifteen feet wide at the narrowest point. It consists of tough grit rock, under which the softer sandstones have been worn away to a depth of twenty five to forty feet beneath the arch. Near by is a petrified forest. The stone tree trunks lie just beneath the soil, or half exposed, fallen in all directions. This point had never before been visited by a white man.

THIS issue of RAILWAY LIFE is late, and for the delay we offer apologies to our readers. We have been kept back by pressure upon our job printing department during the Christmas season. Being delayed in the December issue until the opening of January, we take this occasion to wish our readers, one and all, A Happy New Year.

THE Canadian Pacific offer to run a branch line to the proposed new lacrosse grounds in Montreal.

THE traffic to California has been something enormous during the last month. West-bound trains are run in three sections, and new trains have been put on every line.

LONDON, Ont., papers state that the Christmas excursion traffic on the Grand Trunk was the largest ever known.

Personal.

Mr. C. J. MACLEAN has been appointed general auditor of the Erie & Huron Railway, with head quarters at Toronto.

Mr. W. J. SPICER, general manager of the Chicago & Grand Trunk, has resigned, to assume a similar position on the American Sault Line. His many friends in Canada will be glad to know that the change is one which promises to be highly beneficial to Mr. Spicer financially.

Mr. R. W. SCOTT, of the Grand Trunk, late cashier of the freight office in Guelph, has been promoted to a similar position in the office at London, his advancement being a well-earned recognition of ability and faithful service. Before leaving Guelph Mr. Scott was presented with a gold watch, on behalf of the city, by a committee composed of Mr. James Innes, Mr. P. M. Guthrie, M.P.P., and other prominent men.

Construction.

RAILWAY building on the Island of Cape Breton is given by good authorities as one of the great reasons for the healthful condition of trade there.

THE Biantford *Expositor* says that the first part of the South Ontario Pacific to be built will be the line from Toronto to Hamilton, thence westward to connect with the portion of the line to London which is already built. "The engineers," says the *Expositor*, "it is understood, are in good shape to commence work when ordered to do so."

It is stated that the Canadian Pacific has already paid about a million for the right of way of way into Montreal to the new station, and has not got it all yet. The same authority says that the amount originally set aside for this purpose was about \$300,000.

It is likely that the work on the proposed canal on the Canadian side at Sault Ste. Marie will not be commenced until late next spring. Tenders were to have been called for next month, but the delay has been occasioned by the incompleteness of the extensive specifications required by the contractors. A great many individuals have already visited the Sault with the view of tendering.

Mr. F. H. BRIDGES, of the Manitoba and North-West Railway is reported as saying that operations on the Prince Albert line, now suspended, will be resumed with vigor in the spring and the road constructed through to Prince Albert. The company is devoting a great deal of attention to colonization with most satisfactory results.

A HUNTINGDON, Que., letter says: Application is being made to parliament again by the South-Western Railway (acting in the interests of the Canadian Pacific, for a charter to build a line from Caughnawaga to Dundee,

there to connect with the American systems. The people of the district, living near the St. Lawrence, are anxious to see the road built.

Work on the new Grand Trunk depot at Montreal is progressing rapidly. The men have begun to put on the roof, and high hopes are entertained that if the present open weather continues the whole structure will be covered in and the station finished early in the new year. The new Canadian Pacific depot is also progressing in a very favorable manner; the foundation is all finished, and the stonework of the first floor is laid, which gives promise of being a very fine structure.

AN exchange says: It is told that works to facilitate the constantly increasing business of St. John, N. B., are likely to be put on foot early in the spring. The Intercolonial Railway track will be extended from the Ballast wharf to the wharves of the Intercolonial Steamship Co.; a tract of land has been purchased, near Hay Market Square, on which the terminal depot of the Central Railway will be erected. The New Brunswick Railway Co., it is said, contemplates the erection of a station near that of the Intercolonial Railway.

A SPECIAL despatch from Victoria, B. C., says: The Esquimalt & Nanaimo Railway company have given notice of an application to the coming session of the legislature for a charter to construct a branch line to a point on the Strait of Fuca near here but ten miles distant from Port Angeles, Washington Territory, to which it is proposed to build a branch to connect with the American system. A transfer boat would convey trains across in half an hour and thus connect Victoria with the American system of railways. The project is that of the Hon. Mr. Danamur and will no doubt meet with the approbation of the legislature.

One-Man Locomotives.

THE *Locomotive Engineer* says:—In a recent issue of a so-called mechanical paper was one of those little statements that amuse practical railroad men, and at the same time show them how little the writer knows of the actual facts in the case. In an article on the burning of oil as fuel on locomotives, the writer, as usual, went on to enumerate the advantages and the economy of the device, and among other things mentioned that it would reduce the expenses of the fireman's wages, as the engineer could easily control the fire from his seat by simply turning a valve.

There are many reasons why one man will never run a locomotive alone, and they are very plain to any man who "has been there." There are more duties for a fireman than merely shovelling coal. His duties are legion: he has supplies to draw, lamps to fill and clean, the interior of cab to keep clean, the whole engine above the running-board to care for, front end and stack to paint, water to take, bell to ring, etc. These duties cannot be performed by the engineer; his duties,

both on and off the road, are as numerous as the fireman's; they cannot be entrusted to round house men, because they cannot know just what is wanted, and it would take as long to explain to them as to do it.

Any engineer who has ever sent his fireman to flag on another train for a few miles and followed with the light engine, knows just how oppressive the lonesomeness gets. It is often necessary for some one to go out in front to relight or turn up a signal lamp or the head light, put out a flag or dig down some sand. Can the engineer go, and leave the mighty locomotive, with its precious freight, flying along over crossings and bridges, through cuts and towns, with no brain to think, no eye to see, or no hand to stay its mad career in case of sudden emergency? Can the engineer set his engine at a tank, go back to take water, find spout too long or too short, and get down and "jimmie around" till he does get it right, take water, then oil, get up, ring bell as he wipes off oil-can, go over on fireman's side to see signal, then get back on his own side and pull out? The travelling public would kick, and kick vigorously. The delays would be demoralizing and the risk great. The only legitimate and proper school for engineers would be sealed forever, and, as more engineers would be killed, there would be no skilled men to take their places.

In cases of sudden sickness or death of engineer—suppose he fell off—who is there to stop the train? Who stopped the president's special train, a few months ago, when the engineer was killed by a broken side rod while running at a high rate of speed? The fireman, of course.

The economy of saving the fireman's wages in this case would be like saving the expense of the roof of a powder magazine. The day of one-man locomotives in road service is farther away now than it ever was.

A Female Switch Tender.

MILWAUKEE has a curious figure in the person of a female "switchman," writes a Chicago *Times* correspondent. Her name is "Switch Annie," and she is in the employ of the Chicago, Milwaukee and St. Paul Company. She has the honor of being the only female exponent of the art of "throwing switches" in the country. The work is masculine, but the worker is feminine from the sole of her sensible walking shoes to the top of her shapely head, possessed of the beauty of an English dairymaid and the muscle of a blacksmith. The eleven switches which she looks after are out near the stock yards and include the most important points in the yards. They were formerly in charge of the girl's father, Joseph Grautner. For years Annie was his assistant, helping him almost from the time she was large enough to throw the switch-lever. The old man was easily "rattled," but Annie never. Her coolness and dexterity have saved many a loss to the company, while for herself she was never known to make a mistake that involved a loss of a dollar to the company.

The Temiscouata Line Finished.

THE laying of the last rail of the Temiscouata Railway was completed on Saturday, January 7th, and the contractor, Mr. John J. McDonald, ran out from Riviere du Loup to Edmundston a passenger train containing the president and directors of the company, the engineers of the Provincial and Dominion Governments and the councillors and leading citizens of Riviere du Loup. The government engineers expressed themselves highly pleased with the condition of the road and the citizens are astonished at the progress that has been made since last spring, when the construction was practically begun. The contractor has spared neither pains nor money in making the enterprise a success, as is shown by the marvellously short time occupied in its construction—shorter, perhaps, than that occupied in the building of any other Canadian road of equal length. The road runs through a finely-wooded country, and for forty miles follows Lake Temiscouata and the Madawaska River through magnificent scenery, with the great stretch of water on one side and on the other snow-capped mountains, alternated with meadows and farms. The party, after dinner, retired to Riviere du Loup, Edmundston turning out *en masse* to bid them greeting.

Concerning this event a despatch from Riviere du Loup says—The station of the Riviere du Loup junction was beautifully decorated on the occasion of the first through train leaving on the Temiscouata Road. At 8 a.m. the train left the station amid cheers. There were about thirty passengers on board, among them Thomas Ridout, and A. L. Light, government inspectors; G. H. Dechene, M. P. P.; A. R. McDonald, president of the company; James Heo, roadmaster; and Thos. Crockett, chief despatcher of the Intercolonial. The members of the city council and the officials of the road and several others are the guests of Messrs. McDonald and Boswell, the contractors. The train reached Edmundston, at 3 p.m., where the party had dinner and left on their way home at 5 p.m. well satisfied with the excursion.

Ottawa and the Grand Trunk.

MUCH interest is being taken in Ottawa over the project to extend the Grand Trunk Railway Company's Midland Railway eastward to Ottawa, and thence by a route south of the Ottawa River, through Gloucester, Cumberland and Clarence townships, to connect with the Vaudreuil and Prescott Road. It is claimed that the construction of such a line would give Ottawa additional railway connections east and west, and the line from the capital eastward would pass through a thickly settled and prosperous country. In an interview, Mr. E. H. Bronson, M.P.P., of Bronson, Weston & Co., one of the leading lumbering firms of the Ottawa valley, said he did not know that it would benefit the lumber trade very much because they had a competition in rates now between the C. P. R. and the Canada Atlantic, and that of course was a great thing. It gave them, he supposed, the lowest profitable rates the railroads

could carry on. It would, however, very materially assist the industries on the south side of the Ottawa between here and Vaudreuil. Mr. Edwards and Messrs. Hamilton Bros., who had at present no outlet for their lumber, would be benefited and would be able to continue their shipments all the year round. The proposed line would open up a fine agricultural country, and if the trains were run so as to allow of the people getting in and out of the city conveniently, it would no doubt be a benefit as well as a convenience in making these agricultural sections contributory to its welfare. Mr. Bronson said the towns along the north shore of the Ottawa were looking for railway competition, and were seeking the Grand Trunk to extend a branch line in that direction. Of course if they did that they could cross the Ottawa at Hawkesbury, and make an independent short line from Ottawa to Montreal.

A project is on foot to secure connection for Ottawa and its district with the Grand Trunk by means of a line to Kingston. A despatch from Kingston, dated 10th January says: This evening a deputation from Smith's Falls waited on the Board of Trade and urged the taking up of a charter for the building of a railway between Kingston and Ottawa. Prominent members of the board and merchants favored the scheme, and the probabilities are that it will be consummated. Hon. G. A. Kirkpatrick strongly favored the scheme. The Brockville and Westport Road will take trade from Kingston, and consequently it must take action as stated. A committee was appointed to look into matters.

The Fastest Passages on Record.

A CORRESPONDENT, who travelled by the Umbria, writes—The Umbria has eclipsed all her rivals by making the fastest passage on record between Queenstown and New York. Leaving the former port at 1.15 p.m. on the afternoon of Sunday, May 29th, she quickly overhauled the Alaska, which steamer had sailed from Queenstown a little time before (not having to wait for mails as the Cunard steamer had), and, favored by fair weather, she made in the succeeding 23½ hours 453 knots, following this up by 470, 478, 473, and 474, until at noon of the fifth day out, she was only 495 knots from Sandy Hook, which point she reached at 1.30 p.m. on Saturday, the 4th June, making a course of 3,088 knots in all. This beats the previous "best on record," viz., the fast trip of the Etruria, February, 27th, 1887, eastward bound, by 1 hour, 19 minutes. A comparison of the two best runs of these flyers will be interesting—

	Etruria.	Umbria.
Left Liverpool to Queenstown	240	240
1st day	424	433
2nd "	464	470
3rd "	450	478
4th "	465	478
5th "	464	474
6th "	464 (From N. Y.)	495
Distance off New York	70	—
	3,041	3,088
Time	6 days 5 hrs. 31 mins.	6 days 4 hrs. 12 mins.

The weather on the whole was favorable.

Head seas and fogs were encountered, but these seemed to make no appreciable difference in the speed of the Umbria, whose engines continuously made 68 and 69 revolutions per minute. Occasionally the sails were hoisted, for N.W., N., or N.E. winds, but nobody was sea-sick, and on the 3rd June, jubilee athletic sports were held on the upper deck, and a concert was given in the evening, at which £50 was raised three-fourths for the Liverpool Seamen's Orphanage and one fourth for an American charity. The previous fastest passage of the Umbria was from Queenstown to Sandy Hook in 6 days and 7 hours. Captain M'Mickan has thus passed the record of all his predecessors on the Atlantic, and has shown that the Umbria is the fastest vessel afloat. The fastest trip the Etruria ever made was in February, 1887, but this was east-bound, and was only thirteen minutes faster than her trip on August 18, west bound, with which I have compared our present west-bound trip in the Umbria. Another thing about the Umbria's fast run is the fact that she has made only 210 revolutions short of 100,000, and that this has been accomplished by the continuous indication of over 15,000 horse-power by her unequalled engines, and, one is almost tempted to add, her unrivalled engineers. What the maintenance of such an enormous horse-power means in the way of closest attention to the vast machinery, and the smooth working of the furnaces and steam, only those who know something about steam engines can appreciate. The fastest day's run the Umbria ever made is the fastest ever made by any steamer. It was on her last outward trip in April, when, on one day, she logged 496 knots, equal to 368 miles—about 24½ miles per hour.

Favorable to the C. P. R.

THE *Boston Herald* is an admirer of the Canadian Pacific. In an interesting article it has this to say about that road: "Here is a transcontinental system indeed, extending fairly from the Atlantic to the Pacific, presenting the longest line of continuous railroad under one ownership, name and management in the world. Here is a system costing upwards of \$150,000,000 and comprising nearly 5,000 miles of finished and operated lines, that has sprung into existence substantially within far less than a decade of time, and that nevertheless takes place among the railway enterprises of the world as a marvel of construction, of unity and of administration. The youngest among the American 'Pacific systems' must be regarded as the most complete, comprehensive and far-reaching of them all." It seemed an impossible task, the building of the Canadian Pacific across the continent, but Canadian brains, energy, pluck, enterprise and genius accomplished the work and astonished the world. That Americans should be so ready to compliment Canada upon her success in this tremendous national enterprise is not surprising. Americans are not only energetic, but large-hearted and generous; and they want to see their neighbors prosper.—*Canadian American.*



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

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

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

W. B. CAMPBELL, J. Publishers.
A. C. CAMPBELL, J.

Offices - 64 Bay Street, Toronto.

TORONTO, DECEMBER, 1887.

TORONTO AND THE C.P.R.

It looks as if legal obstacles are likely to arise to prevent, for the time, the entrance of the Canadian Pacific into this city from the east. The position, aside from minor legal difficulties which only the lawyers understand, is this: The Canadian Pacific proposes to cross the Grand Trunk track on the flat at a point in the eastern part of the city. To the point and manner of crossing the Grand Trunk objects. The Railway Committee, being appealed to by the Canadian Pacific, has given a decision that the crossing shall be a flat one between Parliament and Berkeley streets—the locality chosen in the first place—and that the details of the crossing shall be settled by the companies: or, in event of disagreement by arbitration under the Act. Speaking to a reporter before the decision as published was authenticated, Mr. Bell, the solicitor of the Grand Trunk, expressed his belief that the Railway Committee had never given such a decision, that that body

had no authority to do more than ratify the decision of arbitrators previously arrived at and that, in assuming to decide the matter as it has, the Railway Committee has gone beyond its legal authority. He stated also that no crossing of the Canadian Pacific would be allowed except by arrangement or by decision of arbitrators. If this means anything, it means that a compromise must be arrived at or the Grand Trunk will contest the authority of the Privy Council's decision in the courts, thus beginning the contest from the first again. Hon. R. M. Wells, solicitor for the Canadian Pacific, maintains the validity of the decision. Vice-President Van Horne, of the Canadian Pacific, has expressed the opinion that the Grand Trunk will see the inadvisability of delaying the entry of the C.P.R. into the city from the east and that they will not press their plea. In the interests of the city, it is much to be hoped that the delay foreshadowed will not take place.

The "Windmill Line" as the boundary is called, which marks the limit of private property on the shores of Toronto Bay, has been agreed upon by all the parties concerned, and work may now progress in filling in preparatory to carrying out the surface improvements which are proposed. The city is to have a road allowance along the present waterfront with power to lay out and pave a street on the local improvement plan, that is to say at the expense of the property owners whose lands will front on the new highway. Unless certain proposed arrangements for the use of the present Union Station are carried out, the Canadian Pacific will proceed to build a new passenger station as well as freight houses on the great property they have acquired at the foot of Bay Street, the finest site for the purpose in the city. The filling in of the water lots, the making of the new street, the construction of the new line into the city, the construction of the new station, if it is decided to build it and the building of the warehouses and other structures for which the new land will offer valuable sites, will add greatly to the impetus to be given the building and mechanical trades by other large edifices already in course of construction, or projected for completion at an early date. Mr. Shaughnessy, Assistant General Manager of the Canadian Pacific, states that if no legal obstacles arise, he hoped for the

completion of the new line into the city before the end of 1888.

THE SAULT LINE FINISHED.

By pushing work at an extraordinary rate the completion of the through route, via the Sault, was completed within the year. The last day of the year saw the last necessary stroke of work done on the great bridge across the river, and Canadians and Americans were able to unite in their new year rejoicings at the completion of this, the greatest work of the year. The first train has already been sent through from Minneapolis to the Atlantic seaboard. This train was in several sections covering no less than 102 cars, which carried over 15,000 barrels of flour consigned to New York, Boston and Philadelphia. This seems an enormous shipment, but it serves only to convey an idea of the expectations which may fairly be indulged concerning the importance of this new route. A shipment of that size of flour alone could be sent through every day by those mills alone which are controlled by the same men who control the American portion of this line, and then they would have one quarter of their output left over for shipment by other lines. If only the staple article of one city furnishes such an enormous trade, it will be seen at once that it would be impossible to exaggerate the importance to all America, and especially to Eastern Canada, of the new connection.

To Montreal especially this promises to be a boon such as has not come to the city since the completion of the Lake St. Peter canal. It is remarkable how little is said, even in the Montreal journals, of the prospects opened out for the Canadian metropolis by this great development of our railway system. But the wide-awake investors of Great Britain see plainly what the results are likely to be. They are far enough away to be able to see the proportions of events with vision unobscured by preconceived notions as to the effect of petty influences, the importance of which we, on this side at closer range of vision, are apt to exaggerate. The financial journals of Britain, speaking of the completion of the Sault Line, are able to see that, aside from all questions of pooling or arrangement which can only tempo-

rarily check the natural current of events, the new road being much shorter than the others, not only to seaboard but (via Montreal) to Europe, the result must inevitably be, and that very soon, that an immense trade, which now seeks New York via Chicago, is bound to seek Montreal via the Sault. They speak of Montreal as a second New York and of the Sault as a second Chicago, and predict the location of a metropolis at the Sault and of a city, nearly the equal of any on the continent, at Montreal.

As has often been pointed out in RAILWAY LIFE, great events have followed one another so fast since the Canadian Pacific was taken hold of seven years ago by the present company that even the most important changes have ceased to excite surprise or any special comment. The day is not far distant, however, when the immense increase in trade due to the Sault connection will prove the foresight of those who have for years steadily maintained its importance.

NORTHERN AND GRAND TRUNK.

On another page will be found an announcement, which appeared in the editorial columns of the *Toronto Globe*, announcing that arrangements have been all but completed for the transfer of the Northern & North-Western Railway to the Grand Trunk. It is to be hoped that some such change has really been arranged for. The Northern & North-Western system is too good a one and is of too much importance to the people of Canada to be longer run on its present basis. There is nothing the matter with the management except that it lacks life, and that is not the fault of the manager or his assistants, but to the unfortunate position in which the road has been left in regard to its proprietorship. In the hands of the Grand Trunk these difficulties would be readily overcome and the road could be made to carry a much larger traffic than it does now.

The importance to the Grand Trunk of securing control of such a system can hardly be exaggerated. It must not be forgotten that the Northern & North-Western and their connections stretch from Lake Erie to Lake Nipissing, with complete terminal facilities at Toronto, Hamilton and Collingwood. Besides

traversing a fine country, quite capable of giving local traffic to pay good dividends, they furnish, as the *Globe* points out, a means of reaching the Sault quickly and with comparatively little new construction. The intention of the Grand Trunk to reach the Sault at as early a date as possible is quite evident, their engineers having already been out exploring the country, with a view to ascertaining the best route by which the extension of the Midland system could be carried out. There are certain small indications, none of which are worth mentioning separately, that the intention is to have Grand Trunk engines running to the Sault to connect with the Duluth, South Shore and Atlantic in time for next year's crops. The bridge over the river being finished and the western part of the route pretty accurately known, there is nothing to prevent this being done.

THE READING STRIKE.

It is the fashion of those who belong to, or sympathize with, the capitalistic class, to condemn out of hand such efforts as are now being made by the miners of the anthracite region of Pennsylvania to secure an increase in wages. They reason thus: As for the men themselves, all they can make in years, even if they can secure the raise, will not compensate them for the time they lose now. As for the general public, the arrangements made by the leaders of the strike are made in secret, and by this Star Chamber organization the whole coal trade of the country is ruled, the lack of coal causing higher prices to the majority of consumers and paralyzing many industries which depend upon a constant large supply of coal at fairly steady rates. If the men do not like the work or the pay, say these people, they should leave them quietly and not make such a disturbance. Many of these "shorthanders" in economic science are rather of opinion that there ought to be some means of preventing by law the control of large bodies of men by a secret conclave of their leaders.

As declaring a general principle of government, this view is perfectly correct and must so be accepted in a democratic country. But, unfortunately, the very people who hold it are those who most strongly oppose the carrying of it out to its logical conclusion and thus

they make the application of the principle one sided and therefore unjust. If workmen have no right to use their legal right to organize for the purpose of coercing their fellows—which is perfectly true—it follows that the men on the other side of the controversy have no right to use the powers which have been specially conferred upon them by the state as railway and mining corporations, and even as land holders, to coerce their fellow men. But the mere statement of the fact that the miner gets forty cents a ton for mining coal and that that coal costs \$6 a ton to the consumer in this city, about three hundred miles from the coal beds, is only another way of stating that the monopoly powers of railway, mining company, land owner, or some privileged person have been unjustly used. The miners say that a part of that injustice is in cutting down their wages below a fair point and they combine to secure an increase. As to their own interest in the matter, they are, or ought to be the best judges of that. As to the public interest in the matter, the three or four cents a ton increase is not nearly so bad as the monopoly prices from which some persons benefit, nor are the secret combinations of workmen so much to be dreaded as the secret operations of small cliques of monopolists who now to so large a degree dictate the price of coal. If, therefore, coercion, secrecy and attempted dictation on one hand are to be put down, it is quite as reasonable as a matter of justice, and far more important as a matter of policy, that these unfair weapons should be taken out of the hands of the other side also. The labor troubles which do so much to disturb trade are not the work of a few demagogues as many people seem to think. The causes of the disturbance lie in unequal conditions of society, in laws meant for the good of all being made to serve the ends of a few, in the subversion of democratic principles and the absurd effort to run a political democracy and a social aristocracy in the same country. When times are good the demagogue has no chance to work up a following, but when times grow hard discontent arises and those who voice that discontent, whether selfishly or unselfishly will be listened to by the people. To lock up the leaders and disperse their following is only to aggravate the evil and prepare for the way worse disturbance at a future day. The

remedy is in curbing monopoly, putting the ban on secret conclaves of every kind in matters which interest all, and in the education of an enlightened public sentiment.

THE NEW SMOKE CONSUMER.

IN our last issue we quoted the *Star's* notice of Messrs. Dobson & Brodie's "Perfection Smoke Consumer and Fuel Economizer" and we are happy to congratulate the patentees, as well as the people of Montreal and other large cities, on the pleasant prospect of at least a mitigation of the nuisance of smoke which has existed to a deplorable extent ever since steam was introduced. The new device has been examined and tested in presence of Messrs. John Kennedy, Chief Engineer, Harbour Commissions, Louis Lesage, Superintendent of City Water Works and of the Chairman, Inspector and several members of the Health Department, and it has been found to be thoroughly effective. Messrs. Brown & May, of the C. P. R. works, speak in the highest terms of its action both as a smoke consumer and economizer of fuel. In the face of the numerous useless devices which have hitherto been offered to users of steam the C. P. R. are to be complimented on being the first to demonstrate on this continent that smoke may be overcome and burned as fuel and that to some profit.

Tests and comparisons show that a very substantial saving of coal may be effected. Draft improved, and steam generated more quickly and maintained more steadily by the use of the new invention.

The Canadian Rubber Company have been the next to have it attached, and Mr. P. H. Cowper, Mechanical Superintendent of the Company, one of the oldest and most experienced engineers in the city, pronounces it to be the best appliance that science has produced for this purpose, and he has had over forty years experience of smoke consumers. It is about to be attached to the marine boilers of some of the larger trans-Atlantic steam ships, and the matter of its applicability to English locomotives is, we understand, in the hands of the eminent Mr. Dugald Drummond, Mechanical Superintendent of the Caledonian Railway, St. Rollox, Glasgow, Scotland.

CAPITAL.

THE following, from the *Railway News*, so nearly expresses the views of RAILWAY LIFE, views which we have expressed even more strongly, that we give it in full, glad to see that this important phase of the great railway question is receiving attention from American railway journals.

Railways are powerful corporations, which have received immense gifts and encouragement from the state. They are all powerful for good or evil, but they are managed and controlled by individuals, and the machinery of that huge legal fiction called "a corporation" is only the mask of individual interests and character. These latter may be of the better or the worse kind, and THE RAILWAY NEWS reserves its independence to criticize, condemn or applaud their acts as it may think that they are to the benefit or injury of the nation's weal.

That THE RAILWAY NEWS is in general sympathy with honest labor is a self evident truth, and in this sympathy we are certain we are joined by every fellow citizen of common humanity in the world. Where is the man living who dares, with any regard for the opinion of his fellow men, openly state that he does not sympathize with those who labor say 8, 10, 12 or 16 hours a day for say \$1, \$2 or even \$5.

But our sympathy does not mean that we support any tyranny on the part of labor organizations, or that we countenance any violence or attempts at robbery. *Labor in our opinion is the duty inherent on the right of existence, and the performance of this duty reflects back the right to exist.* This right to exist, and by existence we understand what a human being in a civilized state of society may exact, is what we accord in labor's obtaining, and to the obtaining of which we will assist our level best.

Sympathizers with labor like ourselves have no antagonism with capital; on the contrary, our best feelings and support are with it as well, for what is capital but economized and concentrated labor; but we are antagonistic to the abuses of capital, just as we are against the abuses of labor when it does so. Capital is already concentrated, simply because it is capital, which is concentrated labor, and it is organized because every individual capitalist represents so much concentration. Labor was compelled therefore to organize simply to counterbalance capital.

Every individual has the generally acknowledged right to the enjoyment of the economies which his labor or his forefathers' labor has produced, but he has no right to either use these economies or have his enjoyment injure his fellow men. Capital may be used and invested, but it must not be either used or invested to the detriment of the rights or for the enslavement of human beings. Its use must be limited, not to abuse.

Thirty years ago capital was abused even in this country, by being invested in the bodily enslavement of millions of human beings be-

cause they happened to be black. Yet the *sacred Rights of Property* were invoked for this foul abuse of capital, and it took years of bloodshed to convince the majority of its iniquity. It is not three hundred years since there were even white slaves for capital to invest in under British rule, so it is easily seen that the curtailment of the abuses of capital was very necessary and is making very slow progress.

We are of opinion that capital is being actually greatly abused in many instances, by investments absolutely injurious to the liberty and rights of our fellow citizens, and we are of opinion that these abuses should be curtailed and prevented by law.

Not confiscation, but legal prevention.

Editorial Notes.

THE cattle on the North-West ranches are wintering well, by all accounts, there being in these great stock raising establishments the prospect of a product relatively as valuable as the immense crop of grain raised in Manitoba. This all means more traffic for the North-West roads and so much more additional prosperity for the country.

THE *Railway Track Journal* has been consolidated with the *Railway Service Gazette*, the new paper being issued from the *Gazette* office. The form of the *Gazette* is still adhered to, but the journal has the advantage of having Mr. W. E. Brown, of the *Journal*, as associate editor. The consolidated publication is greatly improved by the change, and more than ever deserves the support of railway men.

SPEAKING of the fall in stocks of some mining Companies in the Gogebic region, a despatch from New York says: "The crash in the Gogebic securities is said to be due wholly to overstocking, overtrading and wild speculation. The legitimate business of developing and taking out ore will probably go on undisturbed." This is fortunate. It is too often the case that the wildcat speculators pull legitimate producers down with them.

ONE of the latest pieces of dance music issued by the popular house of I. Suckling & Sons is the C. P. R. Lancers, which, as its name indicates, was composed in honor of Canada's great national highway, and which is dedicated to Sir George Stephen, the

president of the company. The composer is Mr. S. Smith. The music promises to become decidedly popular, having in it the "catchiness," which is the great thing with dance music now-a-days, combined with originality. We regret much that the time for our tripping the light fantastic is so far past that there is no hope of our enjoying, as it should be enjoyed, this pretty piece of music.

THE newspapers are publishing the advice given by Russel Sage, Jay Gould, and Cyrus W. Field to the boys of this generation. Of course these great men tell the boys that virtues such as perseverance, honesty, and so on, are the means of getting on, thereby gently insinuating that only these beatific qualities have contributed to their own success. There is not a word about how to issue watered stock or how to freeze out an opponent. Come, come, gentlemen! You can afford to tell us about it, for you have each your pile, and nobody will take it from you, even though you did get it at the expense of the rest of us. To tell us to be persevering and so on is to tell every man preparing for a race to train well and do his best. But we know all that already. Those of us who are after millions want to know some of the tricks of the track.

WE have received the first number of *The Locomotive Engineer*, a new journal, published in New York, and devoted "to the special interests of locomotive engineers and firemen, and to locomotive maintenance and repairs." The paper is strikingly handsome as a specimen of printing, while from a literary point of view it shows ample evidence of ability to take a place in the front rank. The editor, Mr. John A. Hill, is a practical man, having left the throttle of a locomotive to take his present position, and he discusses every question from the point of view of a practical man. In this issue we give some extracts from the new journal, which give evidence of the ability which Editor Hill brings to his work. *The Locomotive Engineer* deserves success, and we have no doubt that it will achieve it.

THE position occupied by Canadian railway securities in England at present is a very favorable one. The settlement of the difficulty between the Grand

Trunk and the other through lines in relation to the dressed meat business has caused in advances in Grand Trunk shares a almost by description. The work of exchanging the outstanding terminable securities of the company at comparatively high rates of interest, perpetual four per cent, consolidated debenture stock has been carried on with great success and the engagements of the Company are thus not only concentrated but are so arranged as to reduce enormously the expense of carrying them. At the same time, the rapid increase of the Canadian Pacific traffic at nearly all points causes the securities of that Company to be favorably regarded. The astute men of the London Stock Exchange seem to feel that a season of great prosperity is ahead of the two great Canadian railway systems.

WORD comes from Chicago that owing to the high rates on oil made necessary by the Inter-State Commerce Law, the Standard Oil Company proposes a tremendous pipe line from Chicago to New York, through the Ohio and Pennsylvania oil fields, thus enabling them to pump the oil direct from either source of supply to either the eastern or the western metropolis. The carrying out of this project, it is said, will cost over five millions of dollars. At present this looks somewhat like the talk about the pneumatic to be from Chicago to New York, but the people of this age are prepared for almost any engineering wonder and it is not safe to say as they of old were wont to say, "impossible! absurd!" Should the new pipe be built it will take an immense deal of traffic from the railways, but that is no reason against the construction, however good argument it may be against the Inter-State Commerce Law.

THE great International Exhibition to be held at Brussels, beginning in May next, is avowedly intended as a congress of industries to study the course and tendency of industrial development with a view to finding out how to avoid those social disasters which threaten many countries of Europe, notably Belgium itself, where the troubles of the hour have reached a stage of painfulness which may fairly be described as acute. The prospectus of the Exhibition has the following among its opening words: "Is there an industrial nation which

does not feel the necessity of reacting against a crisis affecting in a disastrous manner produce and exchange the duration and intensity of which is without a parallel in history? A great deal of attention, apparently, is to be devoted to railways and those branches of production which assist in railway development. Should the object outlined be faithfully followed there is every reason to hope that every civilized country will have something to learn from the results. As in Belgium, social and industrial problems most urgently demand settlement, it seems reasonable enough to look to that country for suggestions as to the means of meeting those which exist universally. American exhibitors will be specially represented by Messrs. Armstrong, Kuauer & Co., of 822 and 824 Broadway, New York.

THE total securities of the Panama Canal amount to almost a billion of francs, or about \$200,000,000. The first issued stood at a considerable premium for years owing to the enthusiasm aroused by de Lesseps success in carrying out the Suez Canal scheme in the face of universal unbelief and tremendous opposition. But not only has this premium been lost, but the securities as a whole have dropped over thirty per cent. below par, the enterprise now standing at a loss to the investors of about \$62,000,000. Even though it may well be admitted that the commerce of the world will one day have means and appliances at its service to force its way through the Isthmus of Panama, it seems to be perfectly clear that the octogenarian promoter of the scheme cannot live to score a second world's triumph in canal building. And it will unfortunately follow that de Lesseps for many years will be known, not as the great scientist and financier, who built the Suez Canal, but the great crank who failed at Panama. History will do him justice, and when the Panama Canal is completed men will speak with the deepest respect of the great man who devoted the last years of his life to the construction of a work which was too great for the engineering and financial resources of his day.

RETURNS compiled from statistics in the office of the Government Immigrant Intelligence office at Winnipeg show that for the ten months of 1887 up to the

end of October the immigrants entering Manitoba and the North-West were over 16,000, of whom over 9,000 were adult males and 3,196 adult females. These returns do not include pullman car passengers, navvies, or people on their way to settle in the United States. The number is more than 6,000 in advance of the immigration for the whole twelve months of 1886 and for the whole year the figures will probably be nearly double those of last year. This is a most satisfactory showing and one upon which not only the people of the North-West, but the whole people of Canada, are to be congratulated. They prove that the disastrous effects of the boom of 1882 and of the short crops of 1884, 1885 and 1886 have been outlived. The magnificent crop of this year has been a good advertisement for the country and the beauty of it is that there is every probability that the good years will have quite as long an innings as the bad ones have had, so that a man taking up land now will, in all probability, get a good start before he has to face the difficulty of a short crop. Moreover as the country is settled up the danger of summer frost diminishes, while the farmers adapt themselves and their system of cultivation more and more completely to their surroundings. With good crops Manitobans will rapidly become as wealthy as any equal number of people in the world, and the railways projected in all directions will find men to build them and in turn will add more to the general wealth.

A Trans-Pacific Telegraph Project.

A SAN FRANCISCO despatch says "The *Examiner* devotes much space in support of a projected cable which shall cross the Pacific Ocean and connect the United States directly with China, Japan, Australia and the Sandwich Islands. This project has been agitated from time to time, but the magnitude of the undertaking has debarred capitalists from making the venture. Appeals to the several governments have been frequently made, and as far back as 1873 congress pressed an appropriation bill providing for a survey of the Pacific Ocean's bed between this coast and Japan, with a view of ascertaining the most feasible course over which to lay a cable. The work was performed by the *Tuscarora*, under command of Commodore Belknap. Subsequently, Commauder J. N. Miller continued the exploration from the Sandwich Islands to Brisbane in Australia. With the exception, perhaps, of the Kuro Siwo, or black stream of Japan, where the water was nearly six miles in depth and the current of

terric strength, no insuperable difficulties were discovered. If the government at that time entertained any idea of laying a cable to Japan it was abandoned, and since then nothing more has been done by congress in this direction, though appeals to it have been frequent. Residents of the Sandwich Islands have been the most persistent and indefatigable agitators in behalf of a cable, and Cyrus W. Field has been regarded as a sort of commissioner entrusted by the islands to press the matter upon the attention of congressmen, and in every other manner do all in his power to connect the islands with some part on the Pacific coast by cable. Thus far so little has been accomplished in this direction that many have reached the conclusion that Mr. Field has not been very sincere in his advocacy of the project. The importance of thus connecting those islands is given in a quantity of interviews with business men and citizens of California. Due emphasis is laid upon the strategic position of the islands in the event of war between the United States and any foreign power. It is shown that the laying of a telegraphic cable to the Sandwich Islands is a desirable undertaking from every point of view it is possible to regard it. San Francisco merchants, shippers, consignees and the thousands generally whose interests are more or less closely linked with the maritime commerce of the city, would find it to their advantage, especially if the line were continued to Australia and Japan. The profile of the bottom of the Pacific, as shown by the drawings of the United States survey, demonstrates that the cable can be laid without difficulty. It is suggested that two branch cables be laid from the California coast, one starting from San Francisco and the other from San Diego, and coming together at a cable station on the Sandwich Islands. From the Sandwich Islands two main stems should be laid, one to proceed south through the Phoenix, Samoa and Fiji Islands to Brisbane, Australia, and the other to run directly across the Pacific to the Bonin Islands and then north to Yokohama, Japan. From Japan a supplementary cable would connect the main oceanic system with China. Still another set of soundings are given as an outline for a cable from the United States to Japan. This projected cable would run north-west from Cape Flattery, or some point near Puget Sound, to the Aleutian Islands, where cable stations would be established. From the most westerly of the Aleutian Islands the cable would run south-south-west to Yokohama, Japan.

The Northern and the Grand Trunk.

THE *Toronto Globe*, in a recent editorial, said "We have excellent reason for believing that arrangements are all but complete for the transfer of the Northern and North-Western Railways to the Grand Trunk. This is the most important movement that has taken place in Canadian railway matters since the commencement of the Canadian Pacific. The Grand Trunk is on the march to the Sault,

and it is bound to get the shortest line to that important point. It is bound there to make connection with the Northern Pacific system, which being made, a large part of the trade of the American North-West must pass through here on its way to New York. When this transfer is completed there will practically be only three railways in Canada, the Grand Trunk, the Canadian Pacific and the Intercolonial.

Chauncey M. Depew.

THE *New York Sun* in the course of a long article says—A personality more difficult to analyze than Mr. Depew's or a status in society at large more unique than his it would not be easy to find among the living or the dead. The largest encyclopedia notice of him calls him an orator, a lawyer and a statesman, and yet goes on to show that he is forty other things as well. From Maine to California and from Mexico to Minnesota he is incessantly quoted with unwavering respect in the newspapers of every political faith, of every trade union or guild of labor or creed or ism. Were he to run for office it is certain that assalants would develop against him, but he has none now anywhere. He seems not even to arouse criticism. Though he is a Republican, the Democrats crowd the hall in the Capitol where he is to speak of some dead pillar of his party. Though he is a clubman, the religious press prints almost whatever he says. Though he is manager of a railroad and the agent of a great capitalistic combination, he is spoken of seriously for the presidency, and those who call themselves Anti-Monopolists, Anti-Povertyites and Anarchists all leave him alone or treat him tenderly. He is a politician, the associate of statesmen, a financier, a student, a practical business man, a wit, an after-dinner talker of the first order, a thoroughly domestic, home-loving man, the president of a club and of a college society, a writer and an orator. Perhaps the best and only way to classify so remarkable a combination of talents is to say that he is a typical and representative American.

A Beautiful Train.

THE *Hamilton Times*' issue of recent date contained the following—By long odds the most magnificent train which has ever passed over the Grand Trunk Line went west about 3.30 yesterday afternoon. It was conveying one of Raymond & Whitcomb's excursion parties from Boston to California. The vestibuled train is the latest and greatest improvement of the idea put forth in the Pullman sleeping-car—that of providing the most comfortable, the most luxurious and the safest transit for the railway passenger, and the newest and unquestionably the finest product of the Pullman shops are these magnificent cars. By an ingenious device the whole train is united under one continuous roof, so that in place of detached cars with exposed platforms, there is, in reality, an elongated suite of elegantly furnished apartments, comprising all the comforts and appliances of the most

luxuriously appointed hotels. The passenger passes from his bed room to the bath room or barber shop, and from the dining room to the smoking-room or reading-room, without the least exposure to the elements or to any risk of soiled hands or garments, such as a passage across the platform of an ordinary car is likely to involve. A child can go from one end of the train to the other without the slightest danger. The vestibules, which constitute the main feature of this model train, are formed by enclosing the platforms. They are as elegantly finished as any part of the car, carpeted so as to entirely conceal the points of connection between the joined cars, and illuminated by means of lights depending from the ceiling, whose rays fall through cut-glass paneled door full upon the steps. The side doors, opening out on the steps, are barred while the train is in motion, but they can be opened instantly when a stop is made. A vertical buffer between the cars imparts greater steadiness to the train, reduces the tendency to oscillation and equalizes the resistances. The cars' superlative elegance is exhibited everywhere. Several railway men and a *TIMES* representative had a look through the train during the few minutes it stopped here. The names of the coaches are: the Harvard (dining), Whitcomb (sleeper), Holden (sleeper), Raymond (smoker), Pasadena (sleeper), America (sleeper), Delmonte (parlor), Corinthia (dining), Servia (parlor). The passengers number 175. There were two G. T. R. engines to the train, and on this line Conductor Allison, of London, is in charge. The coaches comprising the train are valued at \$140,000.

Trans-Atlantic Steamers.

THE following is from the *Toronto Globe*:—Mr. W. R. Anderson, of London, England, who is staying at the Rossin House, was interviewed by a *Globe* reporter on Saturday. Mr. Anderson is here in connection with the tenders for a fast ocean mail service between Great Britain and Canada, which have recently been called for by the Canadian Government.

"Some misapprehension has arisen," said Mr. Anderson, "as to who the tenders are. It has been supposed that the Orient Company were tendering, but that is not so. The fact is that Messrs. Anderson, Anderson & Co., and Messrs. F. Green & Co., both of London, who happen to be the general managers of the Orient Line, have signed tenders for the mail service, others, men of capital in London and elsewhere, being interested in the tender. The attention of this syndicate was drawn to the matter by the extraordinary development of the Canadian railway system, both the Grand Trunk and the C. P. R., and the possibilities of the development of trade in and through Canada from the great through line that now stretches from ocean to ocean. It appeared to us that the possibilities of such development (having regard specially to the connections that might be made, and were supposed to be made, on the Pacific side) were so great that a moderate

subsidy from Canada would justify us in embarking on the enterprise of a fast Atlantic service, superior to anything at present existing on the Atlantic between the United Kingdom and any American port. On this view of the position we have set in our tender. Having looked into the statistics of the fast freight and passenger travel of Canada, I find that a great part of the former, both ways, is diverted through New York, and that at least seventy five per cent of the latter goes in the same direction. I believe that the establishment of such a service as we have tendered for will change all this, and that not only will the trade of Canada come and go direct from that country, but a great trade would be brought to Canada bound for the Northern States of the Union, as well as a large through freight and passenger traffic to and from China and the East."

"Do you think that steam connections on the Pacific are likely to be established independently of the proposed Atlantic service?"

"I do not believe that such a high-class service will be established on the Pacific as would be established if the Atlantic service between Great Britain and Canada is made the very best."

"Do you think Canada will reap sufficient benefit from the establishment of such a line as you propose, to justify the government in paying the subsidy you ask for?"

"I cannot doubt it. Rapid ocean travel on both sides of the Dominion cannot fail to attract a large number of passengers and emigrants, especially from Europe, besides the attraction to people travelling to and from China and the East through Canada. Thus not only will Canada get labor and population to develop her rich North-western territories, but men of education and capital will come to know the greatness of the country, and no doubt many of them will be tempted to invest their money if not to settle in it. Canada certainly will gain the distinction of having the best mail, express, freight and passenger service in the world, and the disgrace of having a great part of her mails, passengers and freight carried through the United States will be removed. If this world's travel can be turned through Canada, it will be of inestimable value to the country in making it known to the world."

"In what time will the mails be delivered by the proposed line, and what improvement would there be in the despatch of mails and the carriage of passengers, as compared with the present Canadian service?"

"I have not before me a record of the times occupied in delivering mails between London and Canada by the present Canadian service: but I am informed that the whole of the business correspondence to and from Ontario and the greater part of the same correspondence to and from Quebec, now goes via New York. The time that is contemplated for the transit of mails by the proposed new service between London and Rimouski during the period of St. Lawrence navigation is five days and twelve hours, and between London and Halifax during the winter months five days and seven hours. During

the summer season it will reduce the time that passengers have to be on the open sea—that is, from the Straits of Belle Isle to Plymouth—to something under four days. The new arrangement will enable the mails from London to be delivered in Toronto before the other steamers can reach New York. Indeed, there is little doubt but that passengers and mails can be landed in Chicago within the present average time of the delivery of the London mails in Chicago. Passengers from London may reach Chicago within eight days, and Vancouver within ten days; and with the establishment of the Pacific Line to Chicago and the East the journey from London to Yokohama can be made in twenty one days (less than half the time now occupied in making the journey over the Suez Canal), and the trip from London to Hong Kong in twenty-five days. The service is to be weekly both ways.

The steamers will be about 7,000 tons gross register, the approximate length between perpendiculars will be 500 feet, or say 525 feet over all; the breadth will be 54 feet and the depth 30 feet. The engines will be over 13,000 horse-power, and the speed 20 knots, or 23 land miles an hour. They will carry over 400 saloon passengers and 1,000 stowage passengers, and a very large amount of freight.

"Will special steamships be built for this service?"

"Oh, yes, there are not steamers afloat at present which would meet the requirements I have stated."

"How would they compare in size with the largest steamers now coming to Canada—the *Parisian*, for instance?"

"They will be about 1,700 tons larger than the *Parisian*."

"What interest has the C. P. R. in this line?"

"No interest whatever, beyond the general effect that it will have on their traffic in common with the other Canadian railways. But in regard to the fact that they extend to the Pacific Ocean, no doubt they will feel a larger interest in its establishment than others, as they no doubt look, as we do, to the development of the through traffic."

"What effect do you think the establishment of the new line would have on the relations between Great Britain and Canada?"

"In my opinion, it might help to draw closer the bonds between Great Britain and Canada, from the fact that it will certainly make Canada and its great resources better known than it is at present."

G. T. R. Shops at Hamilton.

THE correspondent of the *National Car and Locomotive Builder*, in the last issue of that journal, says:—At Hamilton, Ontario, are located the shops which were the mechanical headquarters of the Great Western Railway of Canada when that was an independent corporation. As most of our readers are aware, the Great Western was swallowed by the Grand Trunk Railway several years ago, and the Hamilton shops are now operated under the latter named railway. Although now

merely division shops, those at Hamilton, although smaller, are much more convenient for doing work in than the headquarter shops at Montreal; and probably for this reason considerable new work besides very heavy repairs continue to be done here. Mr. C. K. Domville, mechanical superintendent in charge of these shops and this portion of the Grand Trunk system, is able to boast, and he does it with considerable pride, that he has 177 locomotives with parts actually interchangeable. This ought to have great influence in reducing the cost of repairs. Mr. Domville is now engaged in building six of a new class of heavy passenger engines with cylinders 19x24. To enable him to get more grate area in the fire-boxes, he uses a combination frame with a slab at the sides of the fire-box. He also spreads the driving-wheels 104 inches between centres to obtain as long a fire-box as possible. Some of the engines that are in service are said to be remarkably free steamers, while being very light on fuel. The ordinary standard engine used on this portion of the Grand Trunk has bar frames, and the mechanical department at Montreal have decided to build no more locomotives with slab frames, although they have many in use, and may be depended upon to judge of the merits of the different kinds of frames. It looked curious to me to see one portion of what is really the same road introducing the practice of building plate frames, while the other portion is abandoning that design. Nearly all the engines on the Great Western Division have underhung springs, and Mr. Domville speaks very highly of the satisfaction they give in service. The engines supported in this way ride very well, and broken driving-springs are practically unknown.

The shops are very busy rebuilding freight engines that have become run down. They give the engines new boilers and renew other leading parts if necessary. They consider it cheaper to make a new boiler for an engine if the frames and motion are good, than to sell the whole thing as scrap. The new boilers are larger than the old ones, and the fire-box is longer. The crown sheets are stayed after what is called the "Darby" method, which combines the advantages of the radial screwed stay and the sling stay. The mechanical department find that this method of staying is much superior to the crown bar, for the reason that it is much easier to keep the crown sheet clean. Several engines rebuilt as described have been put into service and are considered equal to new machines.

All departments of these works appear to be well run, and above the average in the means employed for getting out work; but the iron foundry struck me as exceptionally well managed. Some of the cylinders, driving-wheels and other heavy castings turned out there were as fine specimens of the molder's art as anything that I ever examined. They cast the rim of the driving-wheel with out a contraction slot, and they are said to have no cracked wheels, the stress being all relieved by peculiar skill in casting and cooling. In watching the work, I noticed that

shortly after pouring the metal for a driving-wheel they made a water-tight vessel of the axle-hole in the centre of the wheel, and kept it full of water. This was evidently done to make the heavy body of iron in the centre of the wheel cool as fast as the thinner body composing the rim. The practice may be common, but it was new to me. The foundry turns out wheels enough for all the freight cars used in the Great Western Division. Mr. A. A. Maver, assistant to Mr. Domville, is one of the brightest young men I have met during all my ramblings.

Removing Grade Crossings.

TRAINS have crossed American city streets at grade so long, that an American has a vague impression that the removal of the nuisance would be a most expensive luxury. It is not. The estimates, brought out by the demand for the removal of grade crossings in the State of Connecticut and in Buffalo, show that the work can be done for a trifle compared with the tax in life and time inflicted by crossings at grade.

In Connecticut twenty-two city and town grade crossings have been abolished at a cost of \$108,330, of which \$87,330 was paid by the roads and \$20,600 borne by the towns. This was done under a law which does not include the sums needed to make street alterations or to pay damages to abutters, but it covers the changes in the railroad and street grades, and brings the luxury of a free street down to less than \$5,000 a crossing.

Buffalo, the worst track-ridden city in the country, has nearly 600 miles of rail in the city limits. Some of the grade crossings have 200 teams a hour and trains every minute or two. This is not much worse than Philadelphia, but in any civilized cities outside of this country would be considered intolerable. With between 100 and 200 flagmen employed at crossings in Buffalo, losses of life and limb are frequent, the railroads are annually spending the interest on over \$3,000,000 for sufficient protection, and there, as here, trains often block the road for half an hour or more.—*Railway News.*

Money-Making Cars.

THE *National Car and Locomotive Builder* says. Three years ago the Old Colony Railroad Company equipped twenty-five of their freight cars with air brakes, so that they might be made up into a train to be used in conveying fast freight to and from the Fall River steamers and run safely at something approaching express train speed. About eighteen or twenty cars are generally put in the train, and the service has been so well managed and so successful that the cars have undoubtedly earned more money for their owners in the three years they have been running than any other train of freight cars ever operated. It appears that the prompt way the freight is handled ought to convey valuable lessons on transportation capable of wide application. The cars are loaded in Boston

in time to leave for Fall River at 2.45 p.m., and the run to that point of transfer is made in about ninety minutes. The cars are immediately run into the warehouse and unloaded into the boat which leaves for New York in the evening. The cars remain in the warehouse till the arrival of the boat from New York in the morning, and they are then loaded, and start for Boston about 8 a.m. The train gets to its destination to have the load discharged, and another load put in before 2.45 p.m., the next leaving time. The operation moves as regularly as clock-work. Sometimes cars without air brakes from other roads come in and have to be pushed through on the fast freight train, and they are placed behind those with brakes. On one occasion, when the train was made up in this way, the train broke in two through a defective link, but there was no damage done in stopping. In fact, the front portion did not get far enough away from the hind part to cause any shock. The cars are of the ordinary standard belonging to the road, having iron trucks with swing beam, and carried on elliptic springs. The only extra thing about the cars is the air brake, and it has cost practically nothing for repairs. According to the words of the superintendent of motive power, "we do not know that the brake is there except when we want to stop the train."

Hoggishness in Passenger Cars.

It makes me disgusted to go into a car and see the hoggishness displayed by a large number of passengers, in the way they spread themselves and their belongings over the seats, as if they had the entire lot at their command and disposal, while others parade up and down the aisle searching for a place to sit down. They will get the conductor to turn two seats together and in one they will sit themselves, while in the other they deposit their bundles and baggage, and leisurely watch the victims of their porcine nature go the whole length of the train in the vain endeavor to find an empty seat. Now, my advice to you, if you are hunting for a place to sit down, is not to make a fool of yourself, nor encourage these people in their selfish ways by being too timid or backward in requesting them to disgorge. You can tell as you enter the car, by glancing through it, whether the seats are generally taken or not, and if you find they are, do not hesitate to ask any person who has two seats thrown together with his feet sprawled over one, to put his cloven hoofs on the floor where they belong. Of course it should be done in a polite and gentlemanly manner, but that is the plain English of it. Nor has a person any claim on an entire seat to himself in a crowded coach where others are forced to stand. We recall an instance which we observed a year or two ago on the train from Brocton to Chautauqua Lake. The car was pretty well crowded, but a lady and her ten-year old daughter had managed to appropriate four of the seats to themselves. Two of them were turned together, in one of which sat the mother and in the other a dog; in the seat ahead of that lay the girl's hat,

while across the aisle the young lady herself took up the fourth. Passengers came in, looked inquiringly at the squatters, but passed on, as no move was made to accommodate, and in its place was stolid indifference, but, thanks to a gentleman who evidently had no desire to go the length of a train before sitting down, while before him were three seats which could be had but for the asking; the hat was taken and politely given to its fair owner, while he and his wife took its place. Profiting by this example, two ladies following requested that the dog come down from his perch, which was acceded to with some reluctance, while during the performance a third lady asked if she could be seated with the mother, who, upon seeing her vast possessions being rightly taken from her, called the daughter to the other half of her own seat, while this last lady took the one now vacant. Ofttimes it is thoughtlessness on their part, but generally is traced to downright greed. When a car is crowded you have a better right to half of a seat than another person has to the whole of it—in other words, enforce your rights when necessary—do not be imposed upon.—*Bee Line Gazette.*

A French Submarine Boat.

VICE ADMIRAL BOURGEOIS is claimed in France as the first inventor of the submarine boat many years ago, and its prototypes, including the American *Peacemaker* essayed in other nations, are counted as but so many adaptations of the original idea. Dismissing any argument on the point, our present attention is engaged upon a diving vessel which is to be made at Toulon, and whose keel was laid as far back as April last on the slips of the Mourillon Docks. The lines of the new craft are due to M. Ramazzotti, a first class sub-engineer of the French Navy, and whose design is fast approaching completion. Shaped like a cigar, on the Winans type, the hull measures 55 ft from end to end, and the widest beam is exactly 6 ft. The immersion of the vessel is controlled by means of leaden plates disposed along her sides, and when afloat only from 16 to 18 ft. of the crown of the shell will be visible above water. From the centre of this part rises a small dome with bull's-eye ports around, and from the interior of the receptacle, the vessel is guided upon its course or made to sink or swim at the will of the commander within. The motive power is imparted by a Krebs electric motor of 50 H. P. which will work twin screws up to the estimated speed of 10 knots. The internal divisions of the hull and framework or fittings are of brass and red copper, and all the other machinery, excepting the screw actions, will be dependent upon compressed air from cylinders containing about 100 atmospheres in store. Room is also found within the shell for a considerable provision of respirable air for the crew, which includes the commander, 12 engineers and 3 seamen.

To sink the vessel to varying depths beneath the surface, water in requisite quantity is to be pumped into reservoirs, and to direct a straight course, an ordinary rudder in the usual position is employed, but to shape a

vertical progress there are rudders hinged about one-third the length of the boat at the sides, aft, or just before the counters. With these adjuncts the rise or descent and oblique course of the hull are controlled, and in the supposition of a near approach, unobserved and scatheless, to a hostile vessel, the powers of destruction become available. The compressed air-tubes will enable the commander to launch two torpedoes of small size but terrific force from the diver. The two engines are linked together by a wire loop, and another wire connected with the battery in the boat pays out on their discharge. The diver withdraws from the spot, and, at a convenient moment the explosion is effected with all safety of the assailants under water. It is stated that an automatic diving boat of similar nature has been successfully tried in Russia, during some operations on the Neva before the Czar.—*The Broad Arrow.*

Wide Awake G. P. A's.

It is noteworthy that the general passenger agents of such roads as the C. B. & Q., C. & N. W. and L. S. & M. S. are making special mention in their advertising cards of the excellency and safety of their track and noting such improved appliances used as interlocking switches, solid stone or iron bridges, etc. It is clearly apparent that the G. P. A's. are aware that the travelling public is beginning to appreciate the superior safety of patronizing roads that have the care and safety of their patrons in view, and therefore have gone to the expense of providing a substantial roadbed and approved track and appliances thereon. If this discrimination was more generally practiced by the public, more railway managers would begin to realize that they are pursuing a mistaken policy in restricting and curtailing the means and resources of those who have charge of the maintenance of way departments. There would be less money expended for private palace cars for the chief officials and more for improved switches and tools for the trackmen, who play such an important part in the operation of every successful railway.—*Railway Service Gazette.*

A Despatcher's Fearful Experience.

A WRITER in the *Philadelphia News* says: I have a brother who is now in the grocery business in Richmond, Va., but he was for eleven years a train despatcher on a southern road. He is a sober, quick-witted and industrious man; but, although he is only thirty six years old, his hair is almost as white as snow, and there are times when the cold sweat stands on his forehead and he trembles like a leaf.

When he was a despatcher, one warm afternoon in August he was fanning himself and trying, without meeting with much success, to counteract the effects of the hot winds, which sometimes blow in that part of the country, in addition to the intense heat from

the sun, which shone on the awning overhanging his window. He had been closely confined to the office for many months, and the constant strain had probably wearied both body and mind. At any rate he had sent an order for an express train to meet a special, on which were a number of officers of the road, at a certain station; then, by one of those unaccountable slips sometimes made by the most well trained and careful minds, ordered the special to a station by the meeting point. He took his finger from the key and his eyes from the train sheet, and again began to fan himself vigorously and allowed his mind to wander at will. A few minutes afterward, more from force of habit than from any other reason, his eyes were cast over the train sheet. Like a flash of lightning, almost at the instant, he saw his mistake. He seized the key and was about to correct it, when he realized to his horror that it was too late. Both trains had been reported as having passed their stations several minutes before and were now fast making toward each other at not less than forty miles an hour. When the certain result of his fearful blunder fully dawned upon him he tried to get up, but his lips were numb and refused to fulfill their functions. As he expressed it, he saw the two trains as they were rapidly approaching each other; saw them but a mile apart with their precious loads of human freight. He knew every inch of the road, and knew that where they must meet there was a high wall of rock on one side and a deep ravine on the other; knew that a horrible death awaited in another instant almost two thirds of the passengers of both trains, for it was on a curve, where the engineers could not see each other until it would be too late. Then a mist came before his eyes, and as he almost fainted he saw in his mind's eye the crash of the two engines, the telescoped cars roll over the embankment and piled in a great heap. Loud above the hissing steam he heard the cries of the dying. He fainted away.

When he recovered consciousness he heard his call on the line. With almost a superhuman effort he arose and answered. The operator at the station to which he sent the order to the special then told him that the engine of the special had broken down as it was pulling out and he wanted further orders. "Hold it!" he flashed back, and a mountain rolled off his mind. In another moment, when he had time to collect his thoughts, he attempted to go to a window, but found that his limbs were numb and the cold sweat was standing on his hands and forehead. There was also a strange stinging sensation at the roots of his hair, as though some one was pricking him on the head with many needles. That night when he left the office and with a great effort walked home, his wife jokingly asked him what he had put on his hair. Upon looking into the glass he was horrified to see that it had in those few moments become almost as white as snow.

He resigned his position next day without giving a cause for so doing. Often since he has told me that money could not hire him to again accept a position as a train despatcher.

Minneapolis and Sault Road.

The *Railway Age* has the following: The completion of the Minneapolis, Sault Ste. Marie & Atlantic Railway, just accomplished, from Minneapolis north easterly to the Sault, a distance of 492 miles, is an important event in respect to its effect upon transportation lines in the North-west. The road has been built by ex Gov. Washburne, of Minneapolis, and other capitalists, to give a direct outlet for the grain of Minnesota to Lake Huron, and also to connect with the Canadian lines for Montreal and the Atlantic ports. Construction was commenced in April, 1884, and the work has been pushed with great energy, over 350 miles of the lines having been built during 1887, and practically during the last six months. At Minneapolis the road has a very important feeder in the Minneapolis & Pacific Railway, built by the same interest, and forming practically an extension of the "Soo line" westward into Dakota nearly 300 miles, with further extension in progress, making a continuous line in the same interest from the wheat fields of Dakota to Sault Ste. Marie, some 800 miles in length. The line is expected to, and no doubt will, divert a considerable share of the traffic now carried between Minnesota and the east by way of Chicago, and very naturally will subtract from the heavy traffic now reaching the head of Lake Superior at Duluth, as during the season of navigation it will be able to lay down and receive freight at the head of Lake Huron, saving the voyage either from Chicago or Duluth to that point. On the other hand this will require a rail haul much greater than that from Minneapolis to Duluth and considerably greater than to Chicago. When the lakes are closed the line will have to depend, for some time at least, entirely upon the Canadian Pacific for its eastern rail connection. Although running for the most part through a wilderness the road should develop a large lumber traffic and in time a considerable local business. Whether the effect of the opening of this cut-off line will be very serious upon the competing lines remains to be seen, but its construction is certainly proof of the wonderful energy, enterprise and resources of Governor Washburne and those associated with him.

An Electric Railway Project.

The *New York Times* says: The biggest thing in the way of an electric railroad that has yet been projected has been under consideration by Detroit capitalists for some time. Arrangements are now nearly completed for the organization of a company and the construction and operation of a road between Detroit and Mount Clemens, the seat of the famous mineral springs and quite a famous resort for invalids from all parts of the country. The longest road of the kind now in existence is at St. Catharines, Ontario, which is seven miles in length. There is one two miles long from Windsor to Walkerville, opposite Detroit, and another three miles long on the northern limits of Detroit. The projector of these experimental lines, all of which

are in successful operation, is Mr. Willis C. Turner, of the Vandepoole Construction Company, and he is at the bottom of this new and much larger enterprise. The length of the projected line is twenty miles. It is proposed to locate a central station about midway between the two terminal points at which the motive power for the entire system will be generated. There will be three electric motors of 50 horse-power each, a 200 horse-power generator with boiler and engines commensurate, and \$20,000 worth of half inch copper wire conductors.

It is proposed to have three closed cars, Pullman built, 30 feet long, and three open cars, for summer running, each 40 feet long, with seating capacity for 100 persons. One train will leave Mount Clemens every hour and another Detroit at the same time; and, though stopping at several hamlets en route, it is believed that the round trip can be made in two hours. One train will be held in reserve for excursions or emergencies. Light freight, baggage, and mail will be carried in addition to passengers. The estimated cost of the entire line, fully equipped, is \$250,000.

Immigration from Dakota.

A DESPATCH from Ottawa, dated 16th Jan., says: Mr. J. H. Metcalfe, M.P.P. for Kingston, who during the past summer has been in charge of the Federal Government's intelligence office for immigrants at Winnipeg, arrived in the city from Manitoba this morning. To the *Empire's* correspondent he stated that the immigration prospects for the coming season are very bright, scores of letters of enquiry having been received from Europe and from the States. Mr. Metcalfe says there has been a large influx of settlers into Manitoba during the year just closed from southern Dakota, and little wonder when settlers in the winter time have to contend with such terrible blizzards as that which overwhelmed the territory last week. A colony of Icelanders from Nevada, whose effects occupied five car-loads, after sending a delegate north decided to make Canada their home and they had been successfully located near Calgary. Mr. Metcalfe said he was in communication at present with some Nebraska settlers who are anxious to locate in the Dominion and he had no doubt that next spring would see them on this side of the line. A cheering factor in connection with last year's immigration was that the settlers were of a much superior class to the average run of immigrants, and many of them had ample means with which to start life in our great North-West.

Mr. Tiffin's Departure.

The following is from the *Toronto Globe* of 7th January. An important meeting of merchants and railway freight agents was held in the gentlemen's parlor of the Queen's hotel last evening for the purpose of presenting Mr. Ephraim Tiffin, retiring general freight agent of the Canadian Pacific railway, with an address, purse and souvenir of Toronto on

the eve of his departure from this city, to take the position in St. Louis of general agent of the express line. Mr. W. D. Matthews, vice president of the Board of Trade, occupied the chair, and amongst those present were Messrs. J. M. Earls, general freight agent of the Grand Trunk; W. R. Callaway, district passenger agent of the Canadian Pacific; Ald. Morrison, Arthur White, Baron Von Hugel, R. Quinn, of the Northern; D. E. Cooper, of the Lehigh Valley; Walter Taylor, W. A. Wilson, of the West Shore; C. H. McLachlan, J. N. Sutherland (who succeeds Mr. Tiffin), Jas. Carruthers and others, including the members of the city press. Mr. Earls, on behalf of the Freight Agents' Association, delivered an appropriate speech, in which he complimented Mr. Tiffin on his ability as a freight agent, and referred to his efforts in the establishment of the association. He then presented him with a magnificent gold watch with a monogram on the exterior and an appropriate inscription on the interior case. Mr. James Carruthers then came forward and on behalf of the merchants of Toronto, presented Mr. Tiffin with a farewell address and a purse of \$360. Mr. Tiffin made a felicitous reply, in which he recalled his happy associations with the merchants of Toronto and the freight agent of the different roads, and said that while he in future would not be with them in person he would always be with them in spirit. The toasts of the "Railway Interests," "Trade and Commerce," the "Press" and the "Ladies," were then responded to and a most enjoyable evening was spent by those present. Mr. Tiffin leaves next week for his new sphere of labors, carrying with him the best wishes of our citizens and his associates in business.

Congressmen Kicking.

A Washington letter says: "There will undoubtedly be some sharp and radical legislation on the question of the inter-state commerce law this session—at least, on that part of the bill which relates to railroad passes. The fact is that the country's representatives at Washington are feeling pretty sore over this matter. In former years the Christmas season meant to the great majority of the members a pleasant tour of the country which, by the elaborate railroad "courtesies" granted them, cost practically nothing. The western members particularly made the Christmas recess the time for extensive travel, always taking good care, naturally, to patronize only those roads over which they had passes. All that has been stopped now, and the honorables have experienced the novel sensation of going down into their pockets for their railroad fares. There has, in consequence, been this year a falling off in congressional travelling, and the Western members, for the most part, remained in Washington during the recess. The city was full of Senators and Representatives during the holidays, lounging around the hotel corridors. Senator Plumb told the truth when, in opposing the two weeks' holiday recess as a waste of time, said not one-twelfth would go home."

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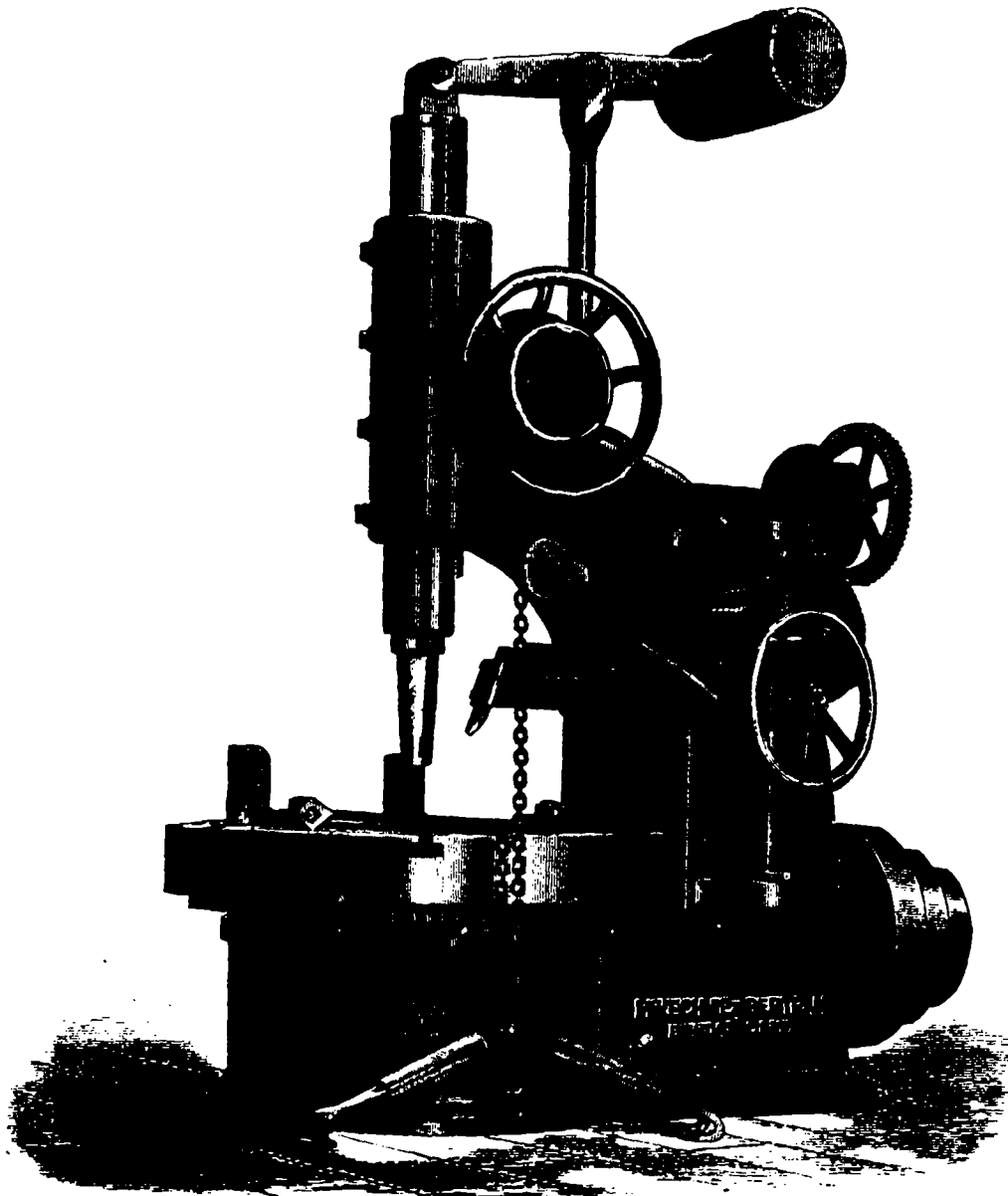
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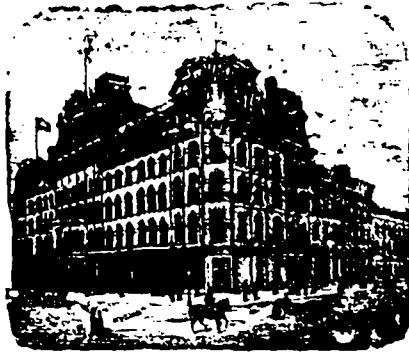
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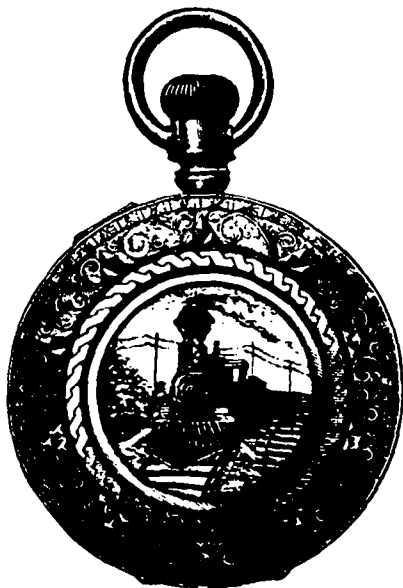
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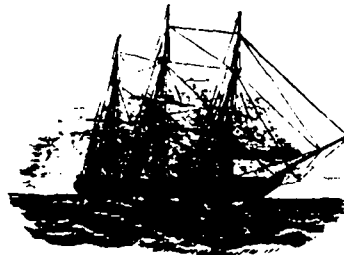
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