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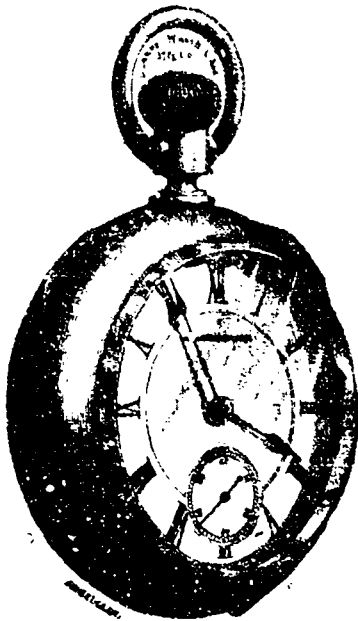
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VOL. III, Nos. 5-6

MAY-JUNE, 1888.

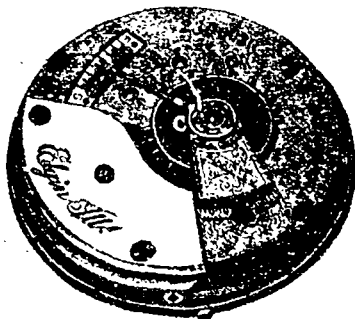
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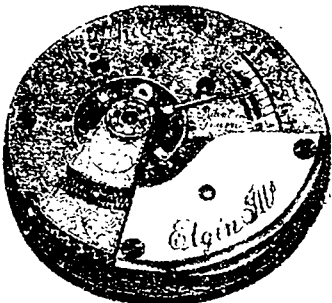
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5 Columbus, Rockford or Springfield, 11 J. nickel do.	11 50	16 00	22 50	28 50	20 00
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9 P. S. Bartlett (Waltham) 15 jewels, gilt, do. do.	14 00	18 50	25 00	31 00	22 50
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13 Waltham, 15 jeweled, nickel do. do.	17 50	21 50	27 50	33 50	25 00
14 Appleton, Tracy & Co., 15 jeweled, gilt do. do.	18 50	22 50	28 50	34 50	25 50
15 H. H. Taylor, 15 jewels, nickel do. do.	19 50	23 50	29 50	35 50	26 00
16 Columbus or Springfield, 15 J., nickel do. do.	20 50	24 50	30 50	36 50	26 50
17 The Jos. P. Wathier, No. 2, 15 J., nickel do. do.	21 00	25 00	31 00	37 00	27 00
18 H. W. Raymond, 15 jewels, gilt do. do.	21 50	25 50	31 50	37 50	27 50
19 Rockford or Springfield, 15 jewels, gilt do. do.	22 00	26 00	32 00	38 00	28 00
20 H. W. Raymond, 15 jewels, nickel do. do.	22 50	26 50	32 50	38 50	28 50
21 Appleton, Tracy & Co., 15 jewels, nickel do. do.	23 00	27 00	33 00	39 00	29 00
22 The Jos. P. Wathier, No. 15 ruby J., do. do. do.	23 50	27 50	33 50	39 50	29 50
23 Crescent Street (Waltham), 15 ruby J., do. do. do.	24 00	28 00	34 00	40 00	30 00
24 Railway (Hampden) 15 ruby J., do. do. do.	24 50	28 50	34 50	40 50	30 50
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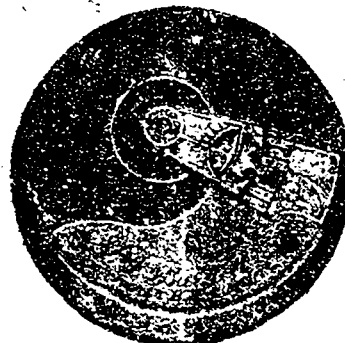
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Vol. III.]

TORONTO, ONT., MAY—JUNE, 1888.

[Nos. 5--6.

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TO OUR READERS.

Owing to a variety of causes the publication of RAILWAY LIFE has been long delayed. We regret this both for our readers' sakes and for our own. To catch up with the issue this number is for May and June; and the July edition will be a double number containing thirty-two pages. We have made arrangements with the editorial contributors to have their matter in on time in future so that our readers whose patience we gratefully acknowledge may receive the paper by the 25th of the month.

It is stated that the Canadian Pacific has contracted with the James Crossen Car Works, Cobourg, Ont., for the building of 2,000 box cars, and will also build 3,000 at their own shops at Montreal. It is also stated that 200 locomotives will be completed by next year.

THE Grand Trunk Railway Company is reported to have made arrangements with the St. Paul, Minneapolis & Manitoba Company by which it will secure entrance to Winnipeg.

To accomplish this it will have in some way to bridge the long distance at present existing between the termini of its lines in Ontario and the tracks of the Manitoba Company. But that the Grand Trunk will eventually find a way to compete with its great rival, the Canadian Pacific, in Manitoba and the North-West has been for some time foreordained. — *Railway Age*.

ONE and one-third fare for the round trip to the Master Car Builders' Convention and the Railway Master Mechanics' Convention, at Alexandria Bay, has been granted to those wishing to attend those meetings. This is better than full fare, but free passes for railroad men on railroad business would seem to be nearer the proper thing. — *Railway Register*.

MR. GEORGE WESTINGHOUSE, jr., has been for some time engaged on designing a buffer for cars, and the device is so far perfected as to stand, without injury, the shock of a car striking at a speed of ten miles an hour. The buffer is a combination of air-compressed friction plates and springs. The intention is to offer the buffer for service in connection with the vertical plane couplers, and it will, no doubt, do good service in retarding the march of these couplers to the scrap heap.

CARVING machines, each of them capable of doing the work of eight to ten men, have been introduced into the Pullman car shops in Illinois as a consequence of the recent strike, and it is claimed, with success. The machines work from a pattern, previously made by hand, which is placed in the centre. A "needle" is made to follow all the curves, etc., of the pattern, and chisels on the end of arms at each side make duplicates of the pattern. These machines, the superintendent says, will largely supersede handwork and at the same time insure uniformity. — *Ex*.

SIR HENRY PARKES, Premier of New South Wales, speaking at a recent railway ceremony, said that in that colony, up to the end of last year, £24,079,555 had been expended on lines open for public traffic, and an additional £3,274,024 on lines in course of construction, so

that up to the end of 1886 they had expended more than £27,000,000 sterling on the construction of railways. During last year 14,881,604 journeys were made by passengers on the various lines in the colony, showing an increase of 1,375,258 over the preceding year. The total property owned by the Government of this colony had a value of over £170,000,000 sterling.

THE intention of the Canadian Pacific with regard to its Atlantic terminus remains still unknown. The "Short Line" across the State of Maine extends from the western boundary near Lake Maguatic to a junction with the Maine Central at Mattawamkeag, 58 miles north-east of Bangor, and it is generally supposed that the Canadian Pacific has made a traffic agreement with the Maine Central, under which it will work over the latter company's line between Mattawamkeag and Vanceboro, the junction of the Maine Central and the New Brunswick systems. In fact, the last annual report states that "permanent trackage rights have been secured" over the Maine Central. No charter exists under which the Canadian Pacific may build east of Mattawamkeag in Maine, and whatever the intention of the company may be, it is at least premature to say that St. Andrews has been selected as the terminus on the Atlantic. — *Railroad Gazette*.

The Montreal *Herald* says:—Mr. Kimball, proprietor of the Horse Exchange, at the Canadian Pacific stock yards, at Hochelaga, has submitted plans to the Directors of the Company for a large stable at that place having all the latest improvements. The Company have accepted the plans and work will at once commence. They will also build a stable on the wharf near their station to facilitate the transfer of imported horses by the steamship companies. Mr. Kimball has received letters from Amsterdam asking for detailed information, also as to the purchasing of horses for military purposes, some having been exported last season which gave great satisfaction to the military authorities. It is likely that a large trade will be the outcome.

### How to Avoid Strikes.

STRIKES are often unjustifiable. No question of that. But there are railway managers who can and do get along without strikes. Such managers must be found for all roads. In the first place, they must be willing to pay prices for labor that will secure a class of service so reliable and so intelligent that it will not unjustly strike. But it is not enough that the services of good men have been secured, who will not unjustly strike. There must also be such management that a strike is not made justifiable. Officers and employees must be engaged for all roads who can get along without strikes, if railway companies will not have their millions squandered in these labor troubles.

We may all preach against strikes as we will, and bring facts and figures to show how the employees and the employers, in each individual case, have squandered millions and have endured needless suffering, but all the same it is very apparent to the man who notes with ordinary care the drift of the labor current that we are but just entering upon the strike era. We may preach until we split our throats that the man who engages in a strike is but little better than a criminal, but all the same the great mass of the people are coming to look upon him as a hero and a martyr, and just so surely as the labor organizations learn to conduct strikes lawfully and orderly, just so surely will they obtain the sympathy of the public. These are facts. Let us act wisely and without the prejudice of class, and make the best of them. *Railroad Service Gazette.*

### Twenty Questions and Answers.

ONE of the means taken by the *Scribner's Magazine* management to call attention to the current series of railway articles is the issue of a small, handsomely printed card giving twenty questions and answers regarding railways on this continent. As a matter of reference these are exceedingly useful and interesting, and they are therefore given here in full:

1. How many miles of railway in the United States? 150,600 miles; about half the mileage of the world.
2. How much have they cost? \$9,000,000,000.
3. How many people are employed by them? More than 1,000,000.
4. What is the fastest time made by a train? 92 miles in 93 minutes; one mile being made in 46 seconds, on the Phila. and Reading R.R.
5. What is the cost of a high-class eight wheel passenger locomotive? About \$8,500.
6. What is the longest mileage operated by a single system? Atchison, Topeka & Santa Fe system, about 8,000 miles.
7. What is the cost of a palace sleeping car? About \$15,000, or \$17,000 if "vestibuled."
8. What is the longest railway bridge-span in the United States? Cantilever span in Poughkeepsie Bridge, 548 feet.
9. What is the highest railroad bridge in the United States? Kinzua Viaduct, on the Erie Road, 305 feet high.

10. Who built the first locomotive in the United States? Peter Cooper.

11. What road carries the largest number of passengers? Manhattan Elevated Railroad, New York; 525,000 a day, or 191,625,000 yearly.

12. What is the average daily earning of an American locomotive? About \$100.

13. What is the longest American railway tunnel? Hoosac Tunnel, on the Fitchburg Railway, 4½ miles.

14. What is the average cost of constructing a mile of railroad? At the present time about \$30,000.

15. What is the highest railroad in the United States? Denver & Rio Grande; Marshall Pass, 10,852 feet.

16. What are the chances of fatal accident in railway travel? One killed in ten million. Statistics show more are killed by falling out of windows than in railway accidents.

17. What line of railway extends furthest east and west? Canadian Pacific Railway, running from Quebec to the Pacific Ocean.

18. How long does a steel rail last, with average wear? About eighteen years.

19. What road carries the largest number of commuters? Illinois Central, 4,828,128, in 1887.

20. What is the fastest time made between Jersey City and San Francisco? 3 days, 7 hours, 39 minutes and 16 seconds. Special theatrical train, June, 1886.

### Nothing Like It.

FOURTEEN months ago the Inter-State Commerce Law went into effect, and to date the Commission has not found it necessary to impose a single penalty prescribed therein against a single railway company.

This is unprecedented. There is food for reflection for those who are capable of thinking intelligently.

If public clamor could have been believed, the case thus made against the railroads as incorrigible law breakers would have been completed. The demagogues and their organs insisted upon the enactment of the Inter-State Law, and declared their belief that the companies would resort to any and all sorts of devices and subterfuges to evade the requirements of the Act.

The Inter-State Commerce Commission testifies, both by act and by the evidence of its individual members, that as fast as it has interpreted the law the railway companies have complied with its conditions with promptness and with such evident good faith that the occasion for penalties has been entirely lacking.

It is not contented that the roads have been able in every case to guess the interpretation which the Commission would put upon each particular clause, and that they have not is no cause for wonderment. But the Commission has found that in every case the companies have been endeavoring to follow the direction of the Act, interpreted with all candor and honesty of purpose.

Instances have been founded, of course, in which the Commission has decided that companies have misunderstood the Law, but a

mere suggestion has been sufficient to correct the error. All this, however, only serves to confirm the position taken by the *Register* when the discussion of the Bill for the national supervision of railways was going on in Congress, namely, that a board with power to investigate and recommend reforms would fill all the requirements of the case.

The railways are exemplary in their observance of the law.—*Railway Register.*

### Governmental Control of Railways.

SEVERAL magazine articles have recently been published on the general subject of the relations between railway companies and their employees, and the extent to which railway operations should be regulated by governments. It is a noticeable fact that stress is laid in them upon what is alleged to be a strong sentiment in favor of governmental control and operation of railroads, while the writers strongly object to and give forcible reasons against such a proceeding. What is really happening in a number of States and in the nation is a rapid increase of the extent of governmental interference with or repression of freedom in the operation of railroads, including the right of regulating rates or fixing charges, which heretofore has been wholly unaccompanied with a corresponding assumption of the pecuniary responsibilities of the lines hampered by such restrictions. The infamous injustice of such action does not seem to be realized by those who advocate and practice it, but if it is to be continued, with accelerated pace, and intermingled with other forms of governmental action which help to deplete railway revenue, such as the construction of free canals, &c., the time may come when owners of railway property will be obliged to choose between a governmental purchase of their lines and a practical confiscation. The extent to which American governments fail to perform their real duties to railway investors, in the way of protecting lines from strikes, parallel routes, fanciful systems of capitalization, and objectionable styles of management, is only equalled by the eagerness displayed in compelling roads to render service for inadequate compensation. In many cases this is now done directly by the laws of different States and the edicts of railway commissioners, while in nearly all branches of Inter-State commerce it is done indirectly by a prohibition of the only form of railway confederations that proved effective, during a considerable period, in preventing ruinous competition. If American governments are to continue a process tantamount to robbing railways, the least they can do is to provide means for remunerating their proprietors for losses which are the direct result of governmental action or neglect. That the general welfare would be promoted by keeping railways on a commercial footing can scarcely be doubted. An assumption of governmental control of railways accompanied with the assumption of pecuniary responsibility for the result of their operation would be a fearfully hazardous experiment, and those who wish to maintain the solvency and freedom of the Republic may well contemplate it

with horror; but the greatest real danger of such a perilous resort comes from the shameful injustice now daily practiced by American governments in their relations to railways. — *Railway World*.

**The Tramp Nuisance.**

"PADDY the Puzzler" is the name placed at the head of a list of tramps who haunt the New York Division of the Pennsylvania Road. "Paddy the Puzzler" has served five years in prison for butchering two men. Other habits of the grassy slopes of the New Jersey Division are: "Gypsy Tom," a treacherous fellow; "Tinker Jack," "Dublin Dan," "Monk," "Chicago Jack," a clever thief; "Fatty the Hatter," "Newark Fatty," who can use a knife like an Italian; "Spotty," "Slim Jim," "Blinker Tom," "English Jack," and others who will do anything rather than work. The railroad company has, says a contemporary, sent out a corps of detectives on a crusade against these tramps. "We don't want to hear from you until the war is over," the railroad officials said to the detectives, "and the tramps are either in jail or in Delaware."

The detectives have already encountered some of the most desperate and defiant of them, including some who are but recently from the Trenton prison and the various county jails. It is said that there are probably several hundred of them. — *Railroad Gazette*.

**The International Tunnel.**

THE *Port Huron Commercial*, in speaking of the railroad tunnel that will be driven under the St. Clair River at that point, to be used by the Grand Trunk Railway of Canada, says: The International Tunnel, which will break the links of winter's chain and give free and uninterrupted transportation and railroad communication with the country at all times of the year, has been a necessity for a long period.

The grounds about the tunnel shaft have been surrounded with close board fences, the gate bearing the legend that no admittance is permitted except on business. Quite a group of buildings are being built about the shaft, for the purpose of the tunnel, including a machine shop, boiler house and engine house, within the inclosure and superintendent's office. The boilers, two in number, locomotive boilers of great size and immense power, have arrived and have been placed in position, the hoisting drum is in place, and the derrick erected, and the pump is ready to be set at work as soon as steam can be raised. The shaft has been sunk a few feet of the full twenty four feet width. At the bottom of the excavation a collar or circular table, made of heavy iron castings bolted together, has been placed in position: on this the brick lining of the shaft will be built, and the casing will be lowered down by the gradual sinking of the iron collar, and the weight of the brickwork, as the clay from the interior of the ring is removed, and the wall is built on above. As the old shaft is full of water up to the river level nothing more can be done towards sinking the new shaft until the pumps are got to work, which cannot be

for several days. When steam is raised and the hoisting gear is set to work, Mr. Kalmbach expects to get the shaft down in a short time. The wall of the shaft is to be carried down till the iron foundation rests on the bedrock, and the work at the tunnel can then commence. The outfit for this part of the work includes the cutting shield, twenty feet in diameter and fifteen in length, and twenty tremendous hydraulic rams, each of one hundred and twenty-five tons power, the whole of which, therefore, when exerting their forces at once, are equal to a propulsive power against the shield of three thousand tons. The shield is being built in England; the rams are in construction in Montreal, and it is expected some weeks must elapse before either can be delivered. The inch and a half iron plates for the lining, dynamos for producing the electric light for illuminating the tunnel, and machinery for pumping air into the works are also indispensable parts of the outfit, but it is expected that they will be to hand by the time the machinery arrives.

**Bound to Have a Smoke.**

"TALKING about ingenuity," said the drummer, "I want to tell you what I saw last winter out West. I was on a train that was snowed in for three days. The company sent us food, but they didn't send any cigars, and the train boy's stock was exhausted the first day. In the express car we found and confiscated a box of smoking tobacco, but there wasn't a pipe on the train. Among the passengers was a Connecticut Yankee who was just dying for a smoke. He got out in the snow and looked around for a weed, or something of that sort, which he might use in making a pipe, but couldn't find a thing. 'I'm going to have a pipe, anyhow,' he said. So he took a lead pencil, opened the wood, took out the lead, and, placing the two strips together again, wound them tightly with the tin foil which came off the packages of smoking tobacco, making them air tight. Then he took an apple, hollowed a bowl out of it, stuck his lead pencil stem into it, and had one of the nicest pipes you ever saw. If you don't believe it, make one for yourself some time and try."

This was a common trick in the army when we could get neither reeds nor corn cobs, and sweet pipes they made in every sense. When apples were unobtainable, which was not seldom, we fell back upon potatoes. — *Exchange*.

**Complications of Government Ownership.**

THE authorities of New South Wales, where all the railroads in the colony are owned by the Government, are greatly troubled by steamboat competition on the Murray River. The people on the banks of the river induced the Government to build a railroad to take out their produce, and also to expend £200,000 in dredging the Murray. The steamboats then cut under the railroad, which put its freight rate down so as for a short time to take all the traffic, but the steamboats have more than met that cut, leaving the road nothing but the

passenger traffic, which does not pay. As the roads were built to develop the country, it seems hard to the Government that they should be called on to operate them at a loss, and it is proposed to put a river toll on the steamers that shall be heavy enough to restore the traffic to the Government road; but this plan is open to the charge that the consequent increase in transportation rates would deprive the inhabitants of the Bourke district of the natural advantage of living on a water course, arresting the development due to cheap transportation, and would sink the £200,000 expended for dredging. On the other hand it may be claimed that all other districts in New South Wales should have as cheap transportation as the Bourke district; but this might involve not only the payment of interest by the imposition of direct taxes, but a part of the operating expenses as well. The instance presents a curious study of the complications which may beset Government control of railroads where water courses afford opportunities for competition.

ACCORDING to the *Chinese Times* the necessity for the opening up of the Celestial Empire to civilization grows apace, and can only be effectually carried out by the railroad projects now again under discussion. In some notes of travel in Lu and Tsi, the writer states that everywhere in Shantung the main roads are lined with sumptuous tablets, telling, as if in mockery, the repair of the road by this or that official. In many cases the cost of the tablet absorbed the greater part of the expenditure. In the meantime the roads are in ruins and impassable. The husbandman sows and reaps his grain, and if it be an average crop he has just enough to support his family and dependents till the next harvest. If it falls short he and they have to starve or live on roots and weeds, for supplies of food he cannot obtain from elsewhere; if it be abundant the surplus is rather an impediment to him than otherwise. He has not the means of storing or preserving it, and the want of roads prevents him from sending it to those who need it. Absolutely he has no market for his surplus; for his immediate neighbors have, like himself, a superfluity, and the carriage to any district in need of it would more than absorb the entire value of what he has to offer. A paternal Government besides forbids him to export it, so, as a matter of fact, the industrial check to over-population is removed, and his family and dependents increase till they eat up themselves the entire produce. Is it any wonder he grows listless and careless, and that each generation finds itself lower in the scale of humanity?

READERS OF RAILWAY LIFE should note the change of address of Messrs. Doherty & Co., the watch makers. They are now to be found in the new extensive premises, 345 Queen St. West, eight doors east of Queen St. Methodist Church. Messrs. Doherty & Co. have an exceptionally well equipped establishment, and are able to turn out the very best class of repair work. To the many railway men in the west end of the city, as well as to railway men throughout Canada, this is a matter of importance; for no railway man can afford to trust his watch to any but the most skilled hands, with the best modern appliances.



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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.

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TORONTO, MAY—JUNE, 1888.

#### RAILWAY CONDUCTORS' CONVENTION.

THE first meeting of the International Division of the Order of Railway Conductors ever held outside of the United States was convened in this city on the 8th May inst. Circumstances made the meeting more than usually important, and attracted to it a great deal of attention. The other business of the meeting sunk into unimportance as compared with the one all-absorbing topic of the relations between the Order and the Brotherhood of Locomotive Engineers. The report of Grand Chief Conductor Wheaton spoke in caustic language of the Brotherhood, condemning some actions in regard to the "Q" strike, and otherwise severely criticising the Brotherhood. This report was warmly discussed in the meeting, even though those on both sides evidently felt that it was to a certain extent a washing of soiled linen in public. Though it seemed from the discussion that the

members regarded the question as one of principle, it was manifest that if there was any question of downright principle in issue, it was much beclouded by local events and even by personal feelings. There is no reason why there should be any antagonism between these two great organizations, and when such feeling arises, the best thing to be done is to seek rather points of unity than points of discord. Grand Chief Wheaton intimated that he was influenced to some extent by local events by his remark contrasting the harmony and quiet which exists in Canada with the state of feeling in some parts of the United States. The fact that all is peaceful on this side is the best proof that there is no necessary antagonism between the Orders, and suggests the propriety of trying to spread peace and harmony from those places where it exists, and confining differences, difficulties and jealousies as closely as possible within the circles in which they already exist. That the report of the grand chief was adopted proves rather the desire of the Order to stand by their chief officers, recognizing the difficulty of the work they have in hand, rather than a failure to see the importance of cordial relations between the Orders. The report has caused a storm both inside and outside of the Order of Railway Conductors, but it is to be hoped that this will soon pass over, and that in all matters where principle has not to be sacrificed, cordial union rather than disagreement will be the rule.

The Order were welcomed to Toronto by the mayor and other leading representatives of the city. They came here in force, and enjoyed themselves while here. Toronto's citizens were glad to meet and greet them and unite in the hope that the Conductors' first meeting on Canadian soil was so pleasant to them that they will be induced to come and see us again soon.

#### THE CAR HEATING PROBLEM. SOLVED.

IT is almost a certainty that the solution of the car-heating problem, which has been the subject of so many inventions, will be accomplished by a Canadian, thus adding another to the long list of Canadian triumphs in this branch of progress. Mr. Edward Gurney, the General Manager of the E. & C. Gurney

Company, one of the largest manufacturing concerns in Canada, has virtually completed in all its details a perfect system by which cars can be heated either by exhaust steam from the locomotive or from a fire in each car, the immediate agent in either case being hot water, the most natural, healthful, and efficient system of heating yet discovered. The invention is now in practical operation at the Gurney works, in this city, where the heating of a room the size of an ordinary Pullman car is accomplished by means of the exhaust from the engine of the works. This contrivance is an ingenious modification of the Gurney hot water heating system, which is in such favor that the Gurney Company has established manufacturing works in Boston with general selling agencies in the large cities of the Union from New York to San Francisco.

We hope to be able to give in our next issue a full account of this invention, one which promises to do more to minimize the horrors of winter railway accidents than any other that has been brought before the public.

#### IMPORTANCE OF IRON MINES.

MR. T. D. LEDYARD, of this city, one of the Executive of the Commercial Union Club, is the author of a pamphlet on the subject of "Canadian Mines and Reciprocity," which contains facts of great interest to the public at large, and to railway men particularly. Mr. Ledyard is well known as an authority on the subject of Canadian mines, and great weight attaches to what he says in this regard. Without attempting to offer any opinion upon the opinions he draws from the facts he presents, we may quote from the pamphlet some of those facts:

Within 110 miles of Toronto, close both to the Midland Branch of the Grand Trunk, and also near to the Canadian Pacific Railway, are deposits of Bessemer ores of excellent quality. An analysis of ore from a large bed in the township of Belmont shows sulphur, only a slight trace; phosphorus, 0.002, or one-thirtieth of the permitted limit for phosphorus in Bessemer ore; metallic iron, 65.36; the chemist remarking on the exceptional purity of this ore. Another analysis of average ore taken from all over this deposit gives metallic iron, 66.29; manganese, 0.42; phosphorus, 0.024; silica, 3.19; titanium, none; sulphur, practically none. These analyses were made by chemists of large blast furnaces in the States, and have fully confirmed the first analysis made by Prof. Chapman, of the Toronto School of Science, from surface

samples of this ore. The latter remarks:—"This is an exceedingly good ore, not too close in texture, rich in metal, quite free from titanium and practically free from phosphorus and sulphur, while the rock matter would be almost self-fluxing. It is well adapted for final treatment by the Bessemer process." Dr. Chapman's opinion has been fully confirmed by practical iron men. Another analysis gives iron, 68.88; silica, 3.18; phosphorus, 0.006; titanium, none; sulphur, none; which is about as nearly a perfectly ideal Bessemer ore as can be conceived. One prominent man in Cleveland writes, "I can sell all the ore of this quality that I can get." Professor Thomas Heys, of this city, who examined this ore bed, makes a similar report regarding the quality of the ore and estimates that there are at least a million tons of ore within a hundred feet of the surface. The Snowdon iron district, 40 miles north-east of Lindsay, contains good Bessemer ore, very free from impurities. Analyses show 62 to 63 metallic iron; phosphorus, trace; sulphur, 0.025; titanium, none. In order to be of Bessemer quality, the amount of phosphorus must be very small, the limit in a 60 per cent. ore being 0.06. When the analysis shows a trace only, this means less than 0.005 per cent. phosphorus or less than one-tenth of the allowance for Bessemer ore. These analyses, therefore, show our ore to be more than usually free from impurities even for Bessemer ore.

To be convinced of the benefit of working an iron mine, a person should go to the neighborhood of an active mine and judge for himself. The Blairton mine, in Peterboro' County, at one time employed between 300 and 400 men, at wages from \$1 to \$1.25 per day, paying out from \$1,800 to \$2,500 weekly for wages alone. There was employment for every able-bodied man and boy for miles around. The farmers from surrounding townships found ready sale for produce at prices equal to the Peterboro' market. Think of the good this would do to the country! An iron mine, with a production of 400 tons a day, would steadily employ 400 men; the labor of these men would be fully equal to that expended upon 100 farms in our back country, and the benefit would be fully as great as the cultivation and production of 100 farms. Within a few months after starting, several of our large ore deposits could give employment to this number of men in each mine. So that if ten good-sized mines were working they would employ 4,000 men, and do as much good to the country as 1,000 cultivated farms; but unlike farms, which take several years to clear and cultivate, the mines could be brought to a considerable state of efficiency within a few months.

Illustrating the present state of affairs, Mr. Ledyard says:

Although the manufacture of iron and steel benefits a community more than any other, one impressive fact may be stated to show the apathy of Canadians in these matters. Take the C. P. R. east from Toronto, and when you get a little over 100 miles down the line you

will be in the mineral district and close to deposits of Bessemer ore suitable for making steel rails. This mineral district extends for hundreds of miles, the C. P. R. traversing a great portion of it. Were the steel rails over which you are travelling made from Canadian ore? Not at all. These rails were bought in England, probably made from Spanish ore, and in their manufacture did not contribute one dollar's worth of benefit to any Canadian, although similar ore from which the rails are made lie almost alongside the railway track. Is this loyalty to ourselves to send money out of the country for articles which we can manufacture ourselves, four-fifths of the value of which would be distributed to pay for the labor of our own miners and mechanics? Instead of doing this, our money has gone to pay Spanish miners and English laborers, who care nothing for us and could not probably point out our country on the map.

The importance of this subject cannot be questioned; it is admitted by everybody. Both the great political parties see the harm of the present inaction, and are honestly and earnestly trying to better it. The ministerialists believe in conserving and developing the home market; while those on the other side look to the ready-made foreign market as the solution of the difficulty. There are men on either side whose party affiliations must be broken in the struggle now approaching. Public discussion on the platform and through the press will clear away many doubts and difficulties now existing in the public mind, when it is to be hoped that some wise policy will be decided upon and maintained.

#### A MEANS OF SELF-CULTURE.

In a recent issue of the *Machinery Moulders' Journal* appears a contribution by Mr. Thomas D. West. In the course of his article Mr. West says:

If any man truly desires to know how deeply he is posted on any subject, let him write an article upon it. If he goes at the matter considering the world his audience, and write nothing but what he feels will stand against all criticisms if brought to argument, he will be a much wiser man at the close of his article than when he commenced. I can truly say my writing has done me personally more good in understanding the true principles of our trade than if I had had a hundred lives' work in the manner generally practiced. The good derived from writing is obtained simply from the fact of making one study and originate.

Here is a hint for the readers of *RAILWAY LIFE*. They can improve themselves, instruct their fellows, and benefit this journal all at one time. To whom it may concern we would suggest that

they should write what they know upon some branch of the railway service, or some railway problem, and send it to us. There is no man but knows more upon some subject than others we would be glad to have this journal made the means of communicating to all the best thoughts of each. And as Mr. West indicates, there is a mental discipline in the effort to state clearly and fully the ideas which one has formed. Even though it be admitted that some men, while having the gift of expression of ideas through pictures, or even spoken language, are hopelessly at sea when they try to formulate what they know in cold black and white, it is not the less a benefit even to such men to seek to put their ideas on paper. A man is never sure he knows a thing until he seeks to express it, and there is no way of fixing facts and arguments in the brain like writing them. The very cumbrousness of our system of writing, the very mechanical difficulties in the way of the flow of ideas give an intellectual training just as the athlete gets a muscular training by using appliances which resist his strength.

Send on your contributions and give *RAILWAY LIFE* and its readers the benefit of your special knowledge of localities and of branches of the railway profession.

#### THE SCRIBNER ARTICLES.

THE June issue of *Scribner's Magazine*, just to hand, contains the first of the promised articles on railways. The pledge of the publishers has been amply redeemed in this initiation of the series. It is of great importance, in our opinion, that the people at large should be informed about railways. Numerous as are the details involved; complicated as are the problems presented, there is nothing about railway administration that cannot be apprehended by people of average intelligence, while sound policy must recognize that, the better railway people and the public understand each other, the better for both sides. Railways are public institutions, and, if the power to run them is delegated to private corporations, it is only because sound sense dictates that course as the true public policy, not because the people and the railways are in any way at variance.

We hail these articles, therefore, with special gladness as promising the most important contribution to popular litera-



ture on this subject that has ever been made.

The article now before us is given under the title, "The building of a railway," and is from the pen of Mr. Thomas Curtis Clarke. The letter-press and illustrations together cover twenty-seven pages, of which almost half is the work of the artists, some half dozen in number, including the leaders in their profession. Mr. Clarke writes with all the force and attractiveness of a man who is telling but a tithe of what he knows, giving his readers in short space the essence of a vast variety of information on the topic with which he deals. The article is in a sense a summary of a number of phases of the railway question, but the author deals with other matters than construction only so far as this course is necessary to a clear understanding of what he has to say upon the topic he has chosen. An instance of this is seen in his account of the American locomotive, as follows:

The key to the evolution of the American railway is the contempt for authority displayed by our engineers, and the untrammelled way in which they invented and applied whatever they thought would answer the best purpose, regardless of precedent. When we began to build our railways, in 1831, we followed English patterns for a short time. Our engineers soon saw that unless vital changes were made our money would not hold out, and our railway system would be very short. Necessity truly became the mother of invention.

The first, and most far-reaching, invention was that of the swivelling truck, which, placed under the front end of an engine, enables it to run around curves of almost any radius. This enabled us to build much less expensive lines than those of England, for we could now curve around and avoid hills and other obstacles at will.

The next improvement was the invention of the equalizing beams or levers, by which the weight of the engine is always borne by three out of four or more driving-wheels. They act like a three-legged stool, which can always be set level on any irregular spot. The original imported English locomotives could not be kept on the rails of rough tracks. The same experience obtained in Canada when the Grand Trunk Railway was opened in 1854-55. The locomotives of English pattern constantly ran off the track; those of American pattern hardly ever did so. Finally, all their locomotives were changed by having swivelling trucks put under their forward ends, and no more trouble occurred. The equalizing levers were first used by Rogers, in 1844.

These two improvements, which are absolutely essential to the success of railways in new countries, and have been adopted in Canada, Australia, Mexico, and South America, to the exclusion of English patterns, are also

of great value on the smoothest and best possible tracks. The flexibility of the American machine increases its adhesion and enables it to draw greater loads than its English rival. The same flexibility equalizes its pressure on the track, prevents shocks and blows, and enables it to keep out of the hospital and run more miles in a year than an English locomotive.

In the course of his writing Mr. Clarke devotes a good deal of attention to the form of construction of the snow sheds on the Canadian Pacific, the Niagara cantilever, and other subjects of special local interest to Canadians. A pictorial sketch is given also of the ice railway across the St. Lawrence at Montreal, but no mention is made of it in the article. It must have been with regret that the author found himself compelled for lack of space to avoid giving some details of this work, for it is unique in character and most interesting as well, both from a popular and engineering standpoint. Mr. Clarke, in the first of his articles, gives an admirable summary of the history of railways, naming the landmarks of progress to the great triumph of inventive genius in Stephenson's locomotive. And at the close he peers into the future and tells what he sees. This closing portion of his contribution does not show the originality which characterizes the other parts, nor does it show the complete mastery of the subject which the writer elsewhere manifests. He says:

American railways have nearly abolished landlordism in Ireland, and they will one day abolish it in England, and over the continent of Europe. So long as Europe was dependent for food upon its own fields, the owner of those fields could fix his own rental. This he can no longer do, owing to the cheapness of transportation from Australia and from the prairies of America, due to the inventions of Watt, the Stephenson, Bessemer, and Holley.

With the wealth of the landlord his political power will pass away. The government of European countries will pass out of the hands of the great landowners, but not into those of the rabble, as is feared. It will pass into the same hands that govern America to-day—the territorial democracy, the owners of small farms, and the manufacturers and merchants.

Railways, great as is their power, are not the result or the source of special laws. It is true that the more exchanges are facilitated, by whatever means, the more nearly alike will be the price of lands equally useful. But the law of rent still appertains and the tendency is for a few to concentrate in their own hands the privileges which

the possession of land secures to them. This law of human nature holds good not only in Europe but in America. Railways will, we believe, abolish the abuses now perpetrated by British landlords, and to this end American railways will greatly contribute. But American railways have made profitable the acquirement by these very landlords and others of vast estates on this continent, especially in the west, and on these the abuses of which the British people complain will be repeated if no steps are taken to alter the natural course of landlordism. This, however, is a digression from the real purpose of Mr. Clarke's work and involves a point which has not yet become a practical problem in relation to railways. Moreover, we find so many points in the article involving the public policy of railway management with which we can so heartily agree that it is scarcely necessary to look up points for adverse criticism. For instance, Mr. Clarke, speaking of the system of premiums to those who prove themselves most efficient in keeping up the standard of excellence of track inaugurated by Mr. Frank Thomson, general manager of the Pennsylvania Road, says:

The advantages of these inspections and premiums are these: Every man knows exactly what the standard of excellence is, and strives to have his section reach it. Under the old system a man never got off his own section and had no means of comparison, and, like all untravelled persons, became conceited.

The standard of excellence becomes higher and higher every year, and perfect fairness prevails, as the men themselves are the judges. The officers of the road make no marks but usually look on and see that there is fair play. This brings the officers and men nearer together and shows the men how all are working for the common good. An agreeable break is made in the monotony of the men's lives. They have something to look forward to better than a spree.

It is by the adoption of such methods as these that strikes will be prevented in the future. It encourages an *esprit de corps* among the men and educates them in every way.

The subsequent articles so far promised include the following: "Railway Engineering Feats," by John Bogert; "Locomotives and Cars," by M. N. Forney; "Passenger Travel," by Gen. Horace Porter; and "The Railway Employee's Life," by B. B. Adams, Jr. We heartily commend *Scribner's Magazine* during the course of this series to the attention of our readers.

## Editorial Notes.

THE *Electrical World* calls attention to the saving on street car lines where electricity is used as the tractive power instead of horses, estimating that saving at 40 per cent. The *World* holds that this must have a good effect upon the stock of these enterprises. If the facts are correct the conclusion can hardly be gainsaid, but it seems strange if the saving is 40 per cent. that more street-car companies do not adopt electricity.

A NEW candidate for the favor of those engaged in the transportation interest is the *Railway and Steamboat Gazette*, a weekly journal, published in Boston. The first issues are attractive, both in typographical appearance and in the reading matter presented; and we doubt not that the new journal will rapidly make its way to a permanent place of usefulness and profit.

LAST year only ten passengers were killed on the railways of Canada, and the majority of these themselves caused the accidents by jumping on or off moving trains, or falling from platforms where they were expressly warned not to stand. On the other hand the number of employees killed was eighty-four. This is a fearfully heavy loss rate for Canada to suffer. Hurry on the adoption of the automatic coupler.

IN another column will be found an article from the *Railway World* of Philadelphia dealing with the subject of Governmental interference with railroads. The *World*, we believe, voices a very prevalent feeling among railway managers in the United States. As showing the trend of opinion, therefore, the article is of importance. The railway men of the United States are tired of being harass and bothered and bedevilled by commissioners and other officers urged on by a public sentiment which has a very large proportion of selfishness in it.

THE *Railway Gazette* says:—"Nothing in this country is increasing so fast as the number of millionaires." The *Gazette* ought to know more about its own country than we do, but if other authorities are to be trusted, the number of paupers is growing more rapidly than the number

of millionaires. It has been proved pretty well that no man can add a million dollars to the country's wealth. If a man owns that sum, it is because he has been legally enabled to take wealth made by other people. To make one millionaire it is almost necessary to make a good many paupers. The fewer millionaires the fewer paupers, and the fewer of either the better for the country.

IT is evident that there are those who do not think much of the scheme to connect the Canadian Pacific with the Siberian Pacific system mentioned in the last issue of *RAILWAY LIFE*. The scheme it will be remembered was to bridge Behring strait, a matter of thirty-five miles or so, dotted, of course, with islands. The *Railway Register* has this to say of the scheme:

The physical facts in the case are not in favor of the route to Cape Prince of Wales, and we are free to confess that we have no faith at all in the success of such an enterprise, should it ever be inaugurated. A railway might be extended to the western coast of Alaska, and the route be continued by a short ocean voyage to Vladivostock, but there do not appear to be such advantages in the all-rail scheme as would warrant the building of a thousand miles of railway over a frozen swamp and the spanning of a thirty-five mile Arctic strait. The western route to Asia will, we believe, when finally opened, have a link supplied by ocean steamers.

Two Baltimore inventors claim to have perfected a contrivance which, if all they say is true, will do more to facilitate the building of railways than anything of recent years. The invention is a traction-increaser, which works by the application of an electric current to all the driving-wheels and that part of the track lying between them. The percentage of increase of tractive power is variously given in different papers from ten to twenty-five per cent. If it is as great as this, it simply means that grades now formidable will be overcome with ease, and grades now impossible can be used where necessary, and immense sums in construction works thus saved. This form of traction-increaser is only now heard of, but it seems so reasonable in theory that it ought to succeed to some extent at least. And it should be one of those contrivances which has a future before them, so that improvements in it to be made in the future will doubtless still further in-

crease its power and proportionately facilitate the running, and so the building of railways. To our mind no more important invention has been made in connection with railways since the steel rail entered the market.

THOMAS ALVA EDISON is a great inventor, but as a student of social questions he has a great deal to learn. This is what he said to an interviewer recently, according to the *Scientific American*:

"When motive power is still further cheapened say in another generation I believe that the unskilled laborer, if sober and industrious, can have a house of his own and a horse and carriage and a library and a piano. It is terrible stupidity that leads some laboring men to suppose that machinery is their foe. It is the thing that gives them independence and even freedom. Without machinery society would drift into the condition of serf and slave. The multiplication of machinery means for every worker more food, better clothes, better house, less work. In fact, I believe that the indefinite increase of machinery is going to solve what folks call 'the labor question'—that is, the desire of hand workers to get a bigger slice of the margin of profit."

Men find themselves deprived of a trade by some invention that does their work, and so are forced into the ranks of common laborers. And then they are told that the new machinery is a great benefit to the world, including the workmen. Why? Because it facilitates production and cheapens goods. Quite true, but what is the meaning of the word "competition" if this change is to be held to be a benefit to the men deprived of opportunities to labor? When monopolies are prevented from taking more than their share of the product, then and not till then will the labor question be settled.

MARK TWAIN makes mention of the tendency on the part of Englishmen, when they find themselves compelled by force of circumstances to adopt some improvement which they have denounced as American and un-English, to hunt up the records first so as to prove that the scheme was stolen from England anyway. Then, he says, they build a monument to the English inventor, and go on using the invention with the calm consciousness that the British Constitution is safe. This saying is curiously illustrated in the treatment that the baggage check is now receiving at the hands of

Englishmen. It is announced that some of the great railways of the Old Country will give the baggage check a fair trial, and there is every prospect that the trial will result favorably. But, before this is done, the statement appears in the *Railway Press* of London that, on the Leicester & Swamington Railway, one of the oldest in the country, the brass check was commonly used. The *Press* says:

The old brass railway tickets used on the Leicester & Swamington Railway measured 1½ in. across, and if a passenger were going from any station, Bagworth, for instance, ticket No. 20 would be issued to him, and this number and the amount of fare paid would be duly recorded in a book. The guard of the train carried a leather bag, something in the form of a collecting-box, having a separate division for each station, into which the tickets were placed when collected, and returned to the station from whence they were issued, to be again used. One of these tickets has been presented to the South Kensington Museum, where in company with the Rocket and other early relics, it will serve to astonish future generations when balloons or Vril or Keely's motors have long since superseded railroads.

No matter who is to get the credit for the idea, it is to be hoped the English railways will adopt the common-sense system in use on this continent.

We owe to the courtesy of Mr. T. D. Ledyard, of this city, an opportunity to peruse a valuable and important pamphlet by Mr. Cyrus Elder, of Johnstown, Pa., dealing with the effect of the Mills' Bill, now before Congress, upon manufacturers, the railways, and the people, through the proposed reduction of the price of steel rails. Mr. Elder makes out an exceedingly strong case against the reduction of the duty, not merely because of its certainty of injuring the manufacturer, but because the railways and the public, according to his opinion, would suffer. He points out in effect that cheap steel rails do not cause extensive railway building, or lower freight rates. The first depends upon the question of floating securities, and the second upon the ancient rule of "charging what the traffic will bear." He gives figures to show the immense amount of traffic for railways furnished by one iron mill alone. This is so great that it almost equals the entire united tonnage of Florida, West Virginia, Mississippi, New Hampshire, Rhode Island and Delaware. This, it will be remembered, is one Bessemer steel company alone, and includes

only the hauling for the company immediately necessary to the collection of its materials and the distribution of its finished product, and does not touch in any way the tonnage to be hauled in the supplies of this kind for the men engaged in these works. To close some or all of these immense factories would be a serious blow to the railways, and would simply mean that rates on other classes of freight must increase, so that the public would have to suffer in the end. The factors in this question, in our opinion, lie further below the surface than Mr. Elder has gone, and, if the matter were gone into deeply enough, it would be shown that his fears of evil are not well grounded. But, as his points are practically admitted by the majority of the upholders of the change which he combats, they will find it exceedingly difficult to refute his arguments, which are clear and very forcible.

#### O. R. G. Grand Division.

The following is a list of the delegates to the meeting of the International Grand Division of the Order of Railway Conductors, opened in this city on the 5th May:

Acelternacht, F. C., Kansas City; Atkins, H. W., Louisville, Ky.; Alexander, R. K., Lafayette, Ind.; Abbott, Joseph, Providence, R. I.; Ayers, J. R., City of Mexico.

Bondurant, Wm., Lonely Mountain, Va.; Burgum, W. H., Glater, Mo.; Bonchard, Wm., Michigan City, Mo.; Baker, C. H., Freemont, Neb.; Belknap, E. H., Galesburg, Ill.; Brunnell, F. A., Cleveland; Bowers, David, Des Moines, Iowa; Bringham, C. S., Hartford, Conn.; Brown, S. H., Albany, N. Y.; Bycroft, Robert, Ashtabula, O.; Blount, B. F., Palestine, Tex.; Bobrock, F. O., Waseka, Minn.; Brazee, Jas. E., Middleton, N. Y.; Blanton, A. J., Richmond, Va.; Bleeksley, E. H., Mauch Chunk, Penn.; Blaidsell, E. G., Camden, N. Y.; Baughman, Jerry, Memphis, Tenn.; Broyles, R. A., Chillicothe, Iowa; Broadstreet, J., Selma, Ala.; Blain, John H., Sunbury, Penn.; Barnett, F. F., Logansport, Ind.; Baker, C. P., Boston; Beales, A. A., Springfield, Mass.; Bogart, W. T., Bradford, Penn.

Clarkson, T. S., Charlotte, N. C.; Curtis, W. E., Homesville, N. Y.; Chapman, H. S., Buffalo; Collins, Wm. L., Hornesville, N. Y.; Camere, Edmond, Riviere Du Loup, Que.; Comau, E. B. A., 99 C., Kansas City; Cross, Wm. C., Burlington, Iowa; Clancy, M., Leadville, Iowa; Campbell, H. S., Boone, O.; Chase, J. M., Texarkana, Ark.; Cross, Geo. H., Austin, Minn.; Cooper, Wm., Nickerson, Kas.; Campbell, L., San Antonio, Tex.; Clem, E. A., Dallis, Oregon; Clark, E. E., Ogden, Utah; Cutter, A. H., Andrews, Ind.; Cannon, E. J., Harvard, Ill.; Crawford, E. L., Belleview, O.; Cowardin, R. C., Nashville, Tenn.; Carpenter, W. E., Binghamton, N. Y.;

Clittendon, S. D., Hoboken, N. J.; Collins, P. J., Topeka, Kas.; Carr, John, Kowser, W. Va.; Cummings, W. H., Brainerd, Minn.; Cole, C. E., Pensacola, Fla.; Craigie, James, Truro, N. S.

Degrappenreid, C. T., Savannah, Ga.; Darby, W. T., Martinsbury, W. Va.; Daniels, Wm. P., G. S. & T., Cedar Rapids, Iowa; Durbin, W. J., Milwaukee; Dickson, W. M., Ottawa, Ont.; Decker, N., Port Jervis, N. Y.; Donahue, Daniel, Bloomington, Ill.; Davis, J. S., Centralia, Ill.; Dale, W. P., Salida, Col.; Dobbie, J. G., Fitchburg, Mass.; Deeton, G. B., Alexandria, Va.; Dolge, R. P., Augusta, Ga.

Fsmary, J. P., Chicago; Evans, Howard, Oneonta, N. Y.; Ellis, J. L., Fort Dodge, Ia.; Elder, J. M., Garrett, Ind.; Eaton, C. P., Easton, Pa.; Farle, S. L., Jacksonville, Fla.

Fawcett, W. H., Horton, Kas.; Fitzgerald, R. E., St. Louis; Flack, Wm. W., Minnesota; Flint, Frank W., Vermont; Foraker, Iowa; Fryfogle, Richard, St. Thomas, Ont.; Flaherty, J. T., Grand Rapids; Fessenden, C. B., Parsons, Kan.; Flanders, R., Chadron, Neb.; Furbeck, D. L., Atlanta, Ga.; Frenzer, A. J., Charlotteburg, Va.; Foltz, C. C., Loraine, O.

Garrattson, A. B., G. S. C., Demison, Tex.; George, H. L., Sunburn, Ia.; Goodell, H. H., Springfield, Ia.; Gilmore, H., Amboy, Ill.; Gray, F. B., Bowling Green, Ky.; Gill, G. C., Petersburg, Va.

Helm, G. A., Temple, Tex.; Herman, S. A., Utah; Hurty, Hiram, Hornesville, N. Y.; Hoodley, M. S., Waverly, N. Y.; Huntley, G. W., Elkhart, Ind.; Howland, George W., Watertown, N. Y.; Howard, John, Detroit; Hunt, J. D., Long View, Tex.; Hammond, C., New York City; Housell, J. W., Fort Worth, Tex.; Harvey, S. E., McCook, Neb.; Hogan, M. C., Montgomery; Haselton, C. H., Maltoun, Ill.; Harris, R. E., Meriden, Miss.; Haight, H. D., Conneant, O.; Harris, W. N., Jackson, Tenn.; Hammond, C. F., Boston; Holstead, L. L., Butler, Ind.; Harris, L. J.; Charleston, S. C.; Harper, W. P., Cincinnati; Howe, J. B., Great Bend, Penn.

Ingram, S., Erie, Pa.  
Johnston, J. B. W., El Paso, Tex.; Johnson, F. E., Savanna, Ill.; Johnson, Frank A., Atlanta, Ga.; Johnson, J. T., Macon, Ga.; Jennings, Wm., Brampton, W. Va.

Kline, E. S., Phillipsburg, N. J.; Knowlton, C. N., Demison, Tex.; Kinzie, C. J., Madison, Wis.; Kinbobb, E. S., Galesburg, Ill.; Kitto, J., Little Rock, Ark.; Kilgore, C. W., Huntington, W. Va.; Keithline, Joseph N., Wilkesbarre, Pa.; Kopp, John, Jackson, Mich.; King, Charles T., Utica, N. Y.

Land, M. J., Columbia, S. C.; Lyman, E. W., Lincoln, Neb.; Laughlin, Jas., St. Louis; Lewis, W. F., St. Louis; Loughbridge, Geo., Weston, Ia.; Laudis, T. J., Decatur, Ill.; Lovejoy, G. W., Terre Haute, Ind.; Läter, George, Roodhouse, Ill.; Little, E. J., Huntington, Ill.; Loftus, O. H., Carbondale, Penn.; Loasby, A., Bellings, Mon.; Laughlin, Robt., East Saginaw.

McCreory, J. L., Hinton, W. Va.; McDonald, T. J., St. Joseph, Mo.; McDonald, R., Jersey City, N. J.; McDonald, H., Corning, N. Y.; McKrac, Robert A., Mobile, Ala.; McKain, Joseph, —; McAuliffe, John F.,

London, Ont.; McKay, John, Hamilton, Ont.; McParthland, Jas. R., Cedar Rapids, Ia.; McBane, L., Galeon, O.; Minalan, T., Ottumwa, Iowa; Moreland, J. W., Streator, Ill.; Millard, C. A., Rochester; Morford, John S., Ontario; Mitchell, Thomas M., Chattanooga, Tenn.; Maxwell, Wm. J., West Philadelphia; Moore, S. F., Newark, O.; Mitchell, G. S., Altoona, Penn.; Moller, N. A., Atchison, Kan.; Mead, F. L., Sedalia, Mo.; Mollen, Jerry, La Crosse, Wis.; Mortell, E. D., Columbus, O.; Moore, F. L., Perry, O.; Mount, H. H., Indianapolis, Mo.; Mahony, C. J., Janesville, Wis.; Milley, Geo., Pittsburgh, Pa.; Marsh, G. F., Minneapolis, Wis.

Nagh, E. D., St. Albans, Vt.; Nottage, Daniel, Laramie City, W. T.

Olive, F. A. E., Moncton, N. B., Oakes, N. J., Clinton, O.; Ostrander, A. S., New Haven, Conn.

Pengia, W. F., Battle Creek; Purdon, R. A., Toronto, Ont.; Purrett, E. W., Toledo, O.; Paul, Sam., Moberly, Mo.; Parker, C. C., Beardstown, Ill.; Prothero, J. H., Huon, Dak.; Post, C. A., San Francisco; Preston, F. J., Stanbury, Penn.; Permar, Wes., Galesburg; Phillips, Sam., Phillipsburg.

Richmond, E. S., Buffalo; Riley, T. H., Springfield, Mo.; Rapelje, J., Winnipeg, Man.; Roberts, Jas. R., Keokuk, Iowa; Rawson, N. E., Little Falls, N. Y.; Rodgers, Wm., Escanaba, Mich.; Reese, F. H., Aurora, Ill.; Reid, F. A., Omaha, Neb.; Rand, L. O., Oswego, N. Y.; Robb, W. C., Birmingham, Ala.

Shecman, W. P., 90 S., Sears, W. S., Adrian, Iowa; Savage, M. C., Baltimore; Shackelford, E. E., Houston, Tex.; Shults, J. D., Rochester; Stowell, J. H., Elmira; Schree, Mount Carmel, Ill.; Sylvester, J. W., Collinwood, O.; Soule, J. H., Pueblo, Cal.; Silvernail, F. P., Denver, Col.; Steese, W. D., Milwaukee; Schroth, H. C., Las Vegas, New Mexico; Sparks, J. E., New Orleans; Strong, W. J., Danville, Ill.; Stutzman, John P., Harrisburg, Penn.; Shafer, C. S., Derry Station, Penn.; Seymour, C., Sacramento, Cal.; Shack, D. A., Philadelphia; Schmitt, F. G., Springfield, Ill.; Savage, J. T., Vicksburg, Mo.; Shaw, Henry, Maryland; Soule, E., Olin, Iowa; Stranchfield, Iowa; Sackett, O., Rochester.

Transue, Frank, Scranton, Pa.; Thompson, B. W., Peoria, Ill.

Vauslyke, I. M., Fort Wayne, Ind.; Vallee, M., ---; Vincent, Geo., Troy.

Winchrenner, W., Eagle Grove, Iowa; Woods, J. T., Pocatello, Idaho; Wayland, J. W., Brookfield, Mo.; Willis, C. A., Rome, Ga.; Webster, C. S., 9 C. C., Elmira, N. Y.; Weisz, Chas. E., 9 J. C., Middleton, N. Y.; Weeks, J. C., Emporia, Kan.; Wade, Mark, Stratford, Ont.; Willard, R. L., St. Paul, Minn.; Wilkins, C. H., Chicago; Walkem, N. S., Kansas City; Whitney, J. P., Newport, Vt.

Yearwood, R. J., Knoxville, Tenn.; Yantis, Ira, Brock Island, Ill.

The report of the Grand Chief showed that during the year 1887 the Order paid from the insurance department connected therewith the sum of \$129,500 to the widows and orphans of

deceased members and to those who are disabled. Fifty-two families were thereby relieved from this department. Through the various division secretaries there was, at the same time, paid \$20,115 in sick benefits to the members of the Order, making a total paid for the relief of the distressed during the year the sum of \$149,615. Since the organization of this department, but four years ago, there has been paid out for relief of distressed members and their families over \$300,000.

The annual report of Chief Secretary Daniels gave the strength of the Order now as 12,000. There are 5,000 members in the insurance scheme, to which a benefit of \$2,500 is attached. The Order has been increased by 1,000 members during the past year. Twenty-two divisions have been organized, making the total number of divisions now in existence 233.

Both these reports contained reflections upon the Brotherhood of Locomotive Engineers in relation to the Chicago, Burlington & Quincy strike, which are referred to elsewhere.

There were a good many candidates for the office of assistant grand chief conductor on the first ballot, but all retired on the second ballot except A. B. Garrettson and J. B. W. Johnston, two Texan railway officials, the former from Dennison and the latter from El Paso. Mr. Garrettson obtained 138 votes, defeating the other candidate by 21 votes. The next election was an exciting one. It was for the office of secretary-treasurer. Mr. Wm. P. Daniels, who has held the office for ten years, was re-nominated. The only other candidates were N. Watkins and E. G. Blaisdell, Camden, N. Y. Mr. Daniels received 130 votes, Mr. Watkins 103 and Mr. Blaisdell 24. Mr. Daniels was re-elected. The other elections were as follows:—Senior grand conductor, R. A. Purdon, Toronto Division No. 17; junior grand conductor, E. D. Nash, Vermont; outside sentinel, W. S. Sayers, Toledo, O.; inside sentinel, Parker, Battle Creek, Mich.; on the insurance committee, Mr. Weisz, Middleton, N. Y.; on the executive committee, Mr. Evans, Binghamton, N. Y. The new officers were installed by the assistant grand chief conductor. The installation ceremonies were very impressive. The members sang an installation ode to the tune of Auld Lang Syne during these proceedings. Denver, Col., was chosen for the next place of meeting.

#### W. D. Howells on the Strike.

THE following article is from the pen of the well-known novelist/literateur, W. D. Howells, and first appeared in *Harpers' Weekly*:

##### WAS THERE NOTHING TO ARBITRATE.

With grief that I think must be shared by a good many other holders of Chicago, Burlington & Quincy stock, I saw that stock go down from 129 to 112 under the effect of the private war waged between the railroad and its engineers and switchmen. I am told by the press that the loss was through the fault of these employees of the road, and that its officers illustrated a beneficent principle in standing firm against them and refusing their demands. The principle was that the road had

the right to manage its private affairs in its own way.

But here, I think, is an error. A railroad has, strictly speaking, no private affairs. It is a corporation which in return for certain franchises has assumed certain obligations, and before all corporate rights it has these public duties. It ought to consider these always, and from the beginning; but it is said that when early in the war the opposite faction offered to submit its claims to arbitration, the officers of the C. B. & Q. replied that there was nothing to arbitrate. If this was true, it was a great pity, and I believe a great mistake. There is no question here of the road's treatment of its employees, but if these thought themselves underpaid, and the road thought them paid enough, it was the very moment for arbitration.

That truly Christian device for averting public war has now been successfully tried, and it seems to me it would have been well to use it in the danger of the private war which has embarrassed travel and commerce on the Chicago, Burlington & Quincy, and spread loss far and wide. It is in quality of a timid capitalist that write: I and I wish to say that I have no particular affection for the Brotherhood of Engineers; but it is unquestionably a power, lawfully organized for defence and offence, and it was the part of policy for the opposing force to recognize its strength. It was also a duty to do this in view of its obligations to the public, which neither of the belligerents in the case has considered. The road was bound to come to any tolerable accommodation with its employees, so that the public might not suffer. The quarrel, as far as it concerned the engineers, was between them and the road; but as concerned the road it did not end there: the community was an immediate sufferer from its impolicy—the community, which had a sovereign claim upon its service.

When the strike began, I suppose that every humane person said to himself, "Well, between men who want to make a better living and a corporation that wants to make more money I can have no choice." I said something like this myself, not remembering my C. B. & Q. stock in my magnanimity. But of course when the strike came, as strikes must, to involve violence, the general sentiment changed, and many lectures have been read to the engineers on their misbehavior, but to the road none. That is my reason for attempting to read it a little one now, to remind it that it is the creature of public favor, with duties to the public which it had no right to fail in through any mistaken sense of its corporate dignity or interest. I dare say that the engineers' strike against it will end, as all strikes have hitherto ended, in disaster to the strikers. But I am sure that strikes will not always end so. It is only a question of time, and a very little time, till the union of labor shall be so perfect that nothing can defeat it. We may say this will be a very good time or a very bad time: all the same, it is coming. Then the question will come with it: Shall the railroads fulfil their public obligations by agreement with their employees, or shall the Government take possession of them and operate them?

It is folly to talk of the withdrawal of capital and the consequent ruin of the country. The country belongs to the people, and they are not going to let it be ruined. Their possession of the railroads would involve much trouble and anxiety, but the Railroad Receiver, who is an agent of theirs, is not unknown, and his management of roads is good; so that the public may take heart of hope if the worst ever comes to the worst.

But let us understand that it is not engineers, or switchmen, or brakemen who can bring it to the worst; it is only directors and managers and presidents who refuse to arbitrate, and who forget their public duties so far as to talk of a railroad's affairs as private affairs.

#### The Lost-Car Seeker.

THE lost-car agent is distinctly a cosmopolitan. He carries in his pockets passes over almost every road on the continent—a queer collection, by the way—some of them marvels of the engraver's art, and others gaudy as the queen of hearts. One week finds the lost car agent hunting cars in Florida, and the next may discover him in Maine. The rules governing the business are that he must travel by daylight, ride in the rear coach and keep his eye peeled. Frequently while sailing past a side track full of cars he discovers one belonging to his own company and by practice he becomes so sharp-eyed that he can photograph the number of that car on his mind in an instant. Arriving at a telegraph station he politely requests the officials of the road to send home his company's car. Cars are frequently sent from one end of the continent to the other and sent back empty. In case a road be short of cars they sometimes take the liberty to retain and use them, and sometimes dishonest roads will steal them outright and obliterate the owner's mark and number. A lost-car agent for a western road recently, after searching for months for a car, found it away out on the plains forty rods from the railroad, devoid of its trucks and occupied by an ambitious squatter as a residence.—*Ex.*

#### Rub the Other Eye.

NINE persons out of every ten, with a cinder or any foreign substance in the eye, will instantly begin to rub the eye with one hand while hunting for their handkerchief with the other. They may, and sometimes do, remove the offending cinder, but more frequently they rub till the eye becomes inflamed, bind a handkerchief around the head and go to bed. This is all wrong. The better way is not to rub the eye with the cinder in it at all, but rub the other eye as vigorously as you like.

A few years since I was riding on the engine of the fast express from Binghamton to Corning. The engineer, an old schoolmate of mine, threw open the front window and I caught a cinder that gave me the most excruciating pain. I began to rub the eye with both hands. "Let your eye alone and rub the other eye" (this from the engineer). I thought he was chaffing me and worked the

harder. "I know you doctors think you know it all, but if you will let that eye alone and rub the other one the cinder will be out in two minutes," persisted the engineer. I began to rub the other one and soon I felt the cinder down near the inner canthus, and made ready to take it out. "Let it alone and keep at the well eye," shouted the doctor pro tem. I did so for a minute longer, and, looking in a small glass he gave me, I found the offender on my cheek. Since then I have tried it many times and have advised many others, and I have never known it to fail in one instance (unless it was as sharp as a piece of steel, or something that cut into the ball and required an operation to remove it). Why it is so I do not know. But that it is so I do know, and that one may be saved much suffering if they will let the injured eye alone and rub the well eye. Try it.—*Medical Summary.*

#### The Grand Trunk Report.

THE *Railway Times*, speaking of the last Grand Trunk annual report, says: It would be impossible for any average shareholder of the Grand Trunk not to have or profess a consuming interest in the doings of the Canadian Pacific, and therefore it is satisfactory to learn that whilst the acquisition of the Northern and North-Western Lines had changed the relations between the two companies they remained of a substantially friendly character. It seems, indeed, that the Canadian Pacific has as yet been rather receiving westward than yielding eastward traffic through the change, and so far the policy of the Grand Trunk in the matter has not hitherto borne its expected fruits. It is, however, curious to note that throughout its entire system the feature of the past half-year has been the extension of its traffic westwards and its contraction eastwards. Nothing was said by the chairman as to the loudly rumored intention of the board to build an independent line into Manitoba, but he expressed the intention representing as he did the "elder born of the two children of the Dominion that had not sold its birthright" — to put in an early claim to a share of the patronage which by some has been thought to have been shoveled on the Canadian Pacific with too lavish a hand. In any case, the policy hitherto pursued has sufficed to rally to the board the unstinted support of the entire proprietary, who, sorely tried as may be the occasional preference holders in inevitable emergencies, must perforce recognize the indomitable and unwearying watchfulness and skill of the executive, who, in evil as in good times, are ever anxious to safeguard the best interests of the company, and who, whilst they may occasionally be disappointed, are unable to despond.

#### The Effect of the Sault Line.

CHICAGO can now join New York in decrying the railroads for "discriminating against the city's interests," as the North-western Roads seem to have agreed, after their few weeks' hesitancy, on a tariff by which they

will accept lower rates on shipments bound to or from the seaboard than on those originating in Chicago. They are simply following the stern law of self-preservation. If St. Paul wishes to buy its goods in New York, and can get them delivered promptly for a dollar by the way of Sault Ste. Marie, there is nothing but folly in charging \$1.25 via Chicago. A dividing line cannot be maintained at Chicago any more than at a way-station in the woods 100 miles west of Sault Ste. Marie, unless it is justified by some service which Chicago men perform. Chicago has also claimed that grain from Iowa must pay toll at its gate, but the action of the roads during the past year in making reduced through rates from the Missouri River to Liverpool has shown that a train of corn cars can change engines in the wilds of Indiana as well as in Chicago. There need be no fear but that competition will keep the rates to and from Chicago low enough to freely move all the grain or dry goods or any other kind of goods that Chicago can handle to the advantage of either the producer or consumer. And if the passage of goods through Chicago is not of advantage to one or the other of these parties, why should the freight go through that city? The North-western roads seem to have sensibly concluded that peace can be arranged just as well before they have completely bled each other as after that event.—*Railroad Gazette.*

#### C. P. B. and Sault Line.

THE following is from the *Railway Register*: On May 1st the Minneapolis & Pacific, the Minneapolis, Sault Ste. Marie & Atlantic, the Minneapolis & St. Croix and the Aberdeen, Bismarck & North-western Railway Companies were consolidated under the name of the Minneapolis, St. Paul & Sault Ste. Marie Railway Company.

This act was immediately followed by the announcement that the Canadian Pacific Company had purchased control of the new line thus formed and would at once begin extensive improvements. The truth of this report is, however, officially denied. But the refutation is only partial, since it is accompanied by the explanation that while the Canadian Pacific Company was not a purchaser, certain gentlemen, who chance to be Canadian Pacific officials, have bought largely of the stock of the new "Soo" Line.

The effect of this move will be very much the same as though the Canadian road were really in control, and it must be understood that the union of interests is much to the advantage of that company. By including the Minneapolis & Pacific in the consolidation and the compact, the Canadian Pacific manifests not only a desire to compete for the traffic to be had at St. Paul and Minneapolis, but also to reach out to the westward beyond, and compete with the St. Paul, the Northern Pacific and the Manitoba Roads in the territory which produces the traffic.

It cannot be doubted that this move on the part of Dominion road has been urged, if indeed it was not at first inspired, by the prospective surrender of its traffic monopoly in

the British North-west. The possibility of a contest on its own soil with American roads prompted it to carry the battle into the camp of its rivals. Hence it proposes to enter the field against its competitors in the United States, carrying war into the heart of the enemy's country.

And speaking in this connection it may be mentioned that the abrogation of the Canadian Pacific's monopoly clause in its charter has been somewhat delayed on account of indetermination as to the kind of collateral that shall attend the issuing of the new bonds which will serve as a bonus to the company. But notwithstanding the delays, the whole British North-west will soon be opened for the occupancy of as many rival lines as may desire to build there, and this is what makes the Canadian Pacific Company anxious to have a line under its control on this side of the border. The company, as such, may not hold the controlling shares, but the same end will be attained as though it did.

The "Soo" Line is important. No one will deny that. And the business that will seek the East over it must grow in volume and profit steadily and rapidly. But it needs enlarged facilities of all kinds, for although it has, in the main, been newly constructed, there remain many things that must yet be done before it will have acquired the position which it ought to hold.

At the time of the consolidation, the gentlemen who hold high official positions in the management of the Canadian Pacific were admitted, and they will furnish all the funds necessary for developing the plans of the new corporation. While the transaction is believed to be one that will prove highly advantageous to the parties immediately interested it will prove satisfactory to the Twin Cities in a double sense. A close alliance between the lines in the United States and Canada will give St. Paul and Minneapolis a commanding position as regards shipments to the East and for export business. The latter city is also relieved of the fear, so long entertained, that either the Northern Pacific or the Manitoba would gain control of the Minneapolis & Pacific, and thus nullify the influence of this independent line. Thus it appears that the Canadian Pacific, if not by purchase still by traffic compact, which serves the same purpose, will have an influential voice in directing the affairs of an important American railway.

#### Chicago to New York—Two Hours.

AN electric railway which is to reduce the time between New York and Chicago to two hours—making a speed of about 450 miles per hour—is now the dream of a Baltimore inventor. As the question will naturally arise what device is provided for restoring their breath to the passengers by this very rapid conveyance it will relieve our readers' minds to know that, so far at least, the inventor does not contemplate rushing human beings across the continent at this speed, but only proposes to send letters, valuable parcels, perishable fruit and special express matter on his lightning train, which is to consist of a

single small car without engine or a rimpin. The car will simply be fired off like a cannon ball from one terminus and will shoot along through the air on a light elevated track, until it reaches a point say ten miles from the New York or Chicago terminus, when the current will be cut off and it will gradually slow down until, by means of a trip lever, brakes are applied, bringing it to a stand. The cost of this remarkable railway is figured out to be the exact sum of \$5,079 per mile for a double track and \$3,366 per mile for a single track. Inventions that seemed more wild than this are now in successful operation. It is not safe in this age of the world to undertake to draw the line between impracticable theory and actual practice. — *Railway Age*.

#### The Heaviest Train Ever Hauled.

WE are all familiar with illustrations of locomotives pulling ships over land on a ship railroad, but the time when such a sight will actually be witnessed is liable to be very far away. A sight almost as remarkable, and one equally novel, was witnessed in reality at Cooney Island last month in the moving by locomotives of the Brighton Beach Hotel. This hotel was a huge frame structure erected close to the beach for the accommodation of summer visitors. For some time the sea had been encroaching so much upon the site of the hotel, that it was in danger of being washed away. It became necessary either to construct expensive break-waters to keep back the encroachments of the ocean, or to move the hotel away from the water. House movers of New York are very enterprising, but they declined to undertake to move the hotel bodily, till Mr. J. F. Morrow, superintendent of the Brooklyn, Flatbush & Cooney Island Railroad, proposed moving the hotel on a railroad to be temporarily built for the purpose. The magnitude of the undertaking will be understood when it is stated that the building is 460 feet long by 200 feet wide at the widest part, and weighs nearly 5,000 tons.

The proprietors of the hotel and engineers consulted, having decided that Mr. Morrow's plans for moving the structure were feasible, work was commenced some months ago, and on April 3 everything was ready for moving. Twenty tracks were laid under the hotel and carefully levelled. The plan adopted was to place a sufficient number of flat cars on these tracks, transfer the weight of the structure to the cars and then pull the whole thing with locomotives to the spot where the new site was. The cars selected for carrying the great hotel were supplied by the Iron Car Co., New York, and were of the iron tubular pattern exhibited a few years ago by the United States Tube Rolling Stock Company. The capacity of each car was 60,000 pounds. The hotel was placed upon 112 of these flat cars, giving each one a load a little over 40 tons, which cars of that make easily carry, as has been frequently shown in public tests in past years. An arrangement of blocks and tackle was used to equalize the pull of the locomotives which were to draw the novel train. Six ordinary eight-wheeled engines

were employed on the work. When the signal was given the engines moved off steadily, the great hotel followed them without jar or mishap, and the work went on as if the feat of moving a 5,000 ton house was one of daily occurrence. The structure was moved 117 feet on the first day, and it was subsequently moved a total distance of 500 feet.—*National Car and Locomotive Builder*.

#### Progress of Uniformity in Standards.

"How can uniformity of the interchangeable parts of cars be brought about" was one of the questions reported upon at the Master Car Builders' Convention. Only seventeen members took the trouble to reply to the circulars of inquiry, and the committee, after referring briefly to the answers, conveniently dismiss the troublesome subject by saying that "it would be impossible to adopt any of the parts mentioned"—meaning evidently to secure their uniform adoption. "Impossible" is a big and ugly word, and one which railway men, above all others, should never use. "I can't" never built a railway, a locomotive, or a car. The securing of uniformity in gauge of almost the entire railway system of the country was a vast undertaking, involving not only mental and physical labor but the expenditure of millions of money, but it was accomplished. The adoption of standards for uniform time, in place of the terrible confusion of local time keeping, was a work that taxed the thought and time of many men of science and affairs for long years, but it was achieved, and the railways have been greatly benefitted. The adoption of a uniform code of rules and signals for the movement of trains by time card and telegraph, supplanting the infinite variety of ideas formulated by superintendents of different degrees of education and experience, with one homogeneous, safe, intelligible and scientific system under which train men coming from any part of the country can work readily and successfully—this has required much time and has encountered no little opposition; but it has been accomplished.

The still more perplexing problem of selecting from the infinite variety of devices and principles a single type of car coupler, which has vexed the master car builders as well as all other railway men for many years, and has been the subject of a good deal of unnecessary timidity and procrastination, has actually reached a basis of settlement, thanks to the very body of men some of whom now seem inclined to say that uniformity in railway appliances can go no farther.

This is not the spirit of the age or of railway men as a class, nor do we believe that it represents the car builders as a body. There is yet much work to be done in the direction of securing uniformity of the interchangeable parts of cars. Among the subjects on which the committee asked advice and opinion in support of efforts at uniformity were the following: The shape of tread and flange and the diameter of wheels; the distance between the backs of flanges of wheels; journal bearings; journal boxes and pedestals; the screws of bolts and nuts, etc. In addition to these mem-



bers were asked to indicate other parts of cars for which standards were desirable, and the replies included draft timbers, drawbar gear, brake connections, ladders, hand folders, roof and dimensions of timbers. There are still other respects in which interchangeability in car construction is necessary, and when accomplished would effect great economy to the railways, and also add to the safety of the life and limb of trainmen. And yet the committee lie down under the burden of investigation and content themselves with saying "You can't."

Opposition to change in their own customs and practices has been too much the characteristics of many of those in charge of the mechanical departments of our railways. Prejudice and the dislike to admit that anybody can teach them have tended to deter not a few car and locomotive men from favoring needed reforms. Their pride is opposed to the admission that the good old way which they have so long practiced is not the best, and stubbornness sometimes comes in also to prevent the admission that there can be any improvement in their methods. If uniformity is desirable they feel "the other toads can come to our standards instead of asking us to come to theirs." This old fogy spirit, however, it is a pleasure to say, has disappeared to a very large extent within a few years: thanks in no small degree to the educating and broadening influence of the national and local associations and clubs, and to the work of the technical journals. There is still no excuse for the continuance of the great variety in details of car construction, when freight cars are now sent from road to road all over the country and are liable to break down far from home, where the peculiar patterns of their owners are not at hand. The interests of the companies who own the cars all point to the accomplishment of as complete uniformity in the interchangeable parts of cars as possible, and the progressive and most intelligent members of both the car builders' and master mechanics' associations are in favor of continuing the movement toward that end. — *Railway Age*.

### Queer Station Names.

The following interesting list of queer names for railway stations is from the *New York Mail and Express*:

The list begins and ends equally well, having eleven Alphas, and eleven Omegas, with a Genesis, one Man and one Eve. There is an Eye in North Carolina, and an Earring in Iowa. There is one Footprint on four Sands of two Times. There are three Laws, one Fee, but not a Lawyer. Ohio has an African, and Pennsylvania a Congo. A Fish Hook is aptly located in Pike County, Ill. There is Fact in Kansas and Fancy in North Carolina, a Fairy in Texas and two Fays. Minnesota has Faith and Kansas Fame. Alabama appears to have had a hard time at one period, for she has named one office Fill and another Slipup, while Louisiana has a Hard-times Landing, Texas an Exile, Florida a Czar, Georgia a Crane Eater, Tennessee a Miser, Missouri a Mirabite, California a

Gazelle, Georgia a Drone, Ohio a Delightful, North Carolina a Lovely, Indiana a Corrects, Missouri a Useful, Washington a Useful, Arkansas a Delay, Tennessee has a Speck, South Carolina a Dutelman, Georgia a Duck, Missouri a Lingo, Tennessee an Aunt, Pennsylvania a Crumb, Georgia and North Carolina each an Alligator, Montana an Ananoda, California an Angel's Camp, Texas a Baby Head, Oregon a Bake Oven, Florida a Banana. An eating-house station in Indiana is called Aldine. There are three Bachelors with a Bachelor's Hall in Virginia, and a Bachelors' Retreat in South Carolina. Texas has a Dime Box, Alabama a Dug, Kansas a Dun, Wisconsin a Dry Bone, Georgia a Hard Cash, Pennsylvania a Bullion, Kentucky a Hard Money, and Alabama a Dollar. Texas has Glory, Kentucky a Goforth, Missouri a Good Night, Texas a Good Luck, Oregon has Glad Tidings, Texas a Graball, Arkansas and West Virginia each have Gin, South Carolina has a Bonnet, Tennessee a Hatmaker, Kentucky has Honesty, Texas Ditto, Florida a Hanlover, Tennessee a Pokeberry, Nebraska a Hunchback, Pennsylvania a Husband, Alabama a Widow, Tennessee a Help, Texas a Hayrick. There is a Total Wreck in Arizona, a Trump in Tennessee, Worms in Dakota, a Viper in Kentucky, Vox Populi in Texas, Sodom in Ohio, Vulture in Arizona, Shoo Fly and Seclusion in Texas, Pig in Kentucky, Poetry in Texas, Pop Corn in Kansas, Pure Air in Missouri, Pumpkin in Georgia, Potato, Rain and Peanut in Virginia, Pea in Alabama, Peculiar and Umpire in Missouri, Philanthropy in Ohio, Recovery in Georgia. There are a Phil, a Bob, two Zifs, Zig, three Ais, a Mascot, two Nix, a Bill, a Bob, a Bet, two Bens, a Bare-foot, two Big Feet, a Big Bab, two Chaps, one Catfish, one Calf Killer, one Bride, three Butterflies, one Bitternut, one Blood, six Olios, two Enigmas, three French, three Germany, one Funny Louis, one Mermoid, one Ni Wot, three Nameless, one Mud, one Mousetail, one Mossback, one Cham Falls.

California has You Bet, and Tennessee a Bet; Texas, Uz; Georgia, Ty Ty; Tennessee, Us; Colorado, Unawcep; Virginia, Ah Sid; North Carolina, Aho, Tennessee, Yum Yum; Colorado, Zem Zem; Tennessee, Y. Z. Missouri has Pay Down, and Georgia Pay Up; Idaho, Sweet; Tennessee, Sweet Lips. There are two Stops, one Stump, three Suns, two Moons, one Sniff, and three states close the list with Why Not.

### The General Awakening.

THERE was never a time in the history of the wage system when agitation amongst the working classes was so general and far-reaching as at the present time. Turn in whatever direction we may we find the same thing going on, and it would appear that after all the years of indifference and disintegration that has been going on amongst them, that they were yet to come together and form one vast living and progressive army of men and women, determined to play their own parts in the great drama of life.

The movement now going on in the industrial world is not of yesterday, nor will it cease to-morrow, but will go on and on, step by step, until the goal is reached, until the wage system has been buried as deep as that of chattel slavery, until every man shall be free and no man a servant to another. This is the extent of every man's ambition, not that he may cease from working, but that he may work for himself alone, and not for another's benefit. This movement, as it has been stated, is not of recent growth. No, but away back in the years gone by germs of this mighty movement was deposited, and it has been growing ever since, and still continues to grow. — *Union Pacific Employe's Magazine*.

JUNE is especially the month of railway conventions, six of which were assembled as follows: June 12, American Train Dispatchers' Association, at Louisville, Ky., and Master Car Builders' Association, at Alexandria Bay, N. Y.; June 13, Yard Masters' Association of the United States and Canada, at Richmond, Va., and Society of Railway Water Supply Superintendents, at Cedar Rapids, Ia.; June 15, American Railway Master Mechanics' Association, at Thousand Islands, N. Y.; June 19, International Association of Car Accountants, Montreal. The following are announced for the next month: July 11, Association of Railway Telegraph Superintendents, at New York City; July 18, 19 and 20, Expressmen's Mutual Benefit Association, at Cleveland, O.; July 18, National Association of General Baggage Agents, at New York City. All these meetings are in the direct interest of improvement in various branches of the railway service, and should, as they generally do, meet the cordial approval of railway managements and call out an increasingly large attendance each year from the classes for whose especial benefit they are intended.

A LOCOMOTIVE engine "unlike any before made" is now under construction at Newburyport, Mass., intended to run on what is called a "bicycle railroad." From a very obscure description in a paper published at that place we gather the following ideas of this device: There are to be two tracks, one on the ground and the other laid on the under side of a frame work overhead, and the gauge will be only 16 inches. The engine will have wheels running on both the lower and upper tracks, the wheel tires having two deep flanges so as to keep the machine from jumping off. It will be 41 feet long from tip of pilot to rear of tender, and only 44 inches wide, and will have a pair of driving wheels 8 feet in diameter. This remarkable machine will, it is claimed, make "the unusual rate of speed of one or two hundred miles an hour," and the comforting statement is well added that there will be "no possible chance for the train to leave the track, so that perfect safety in all its movements is guaranteed." Under all the circumstances we are not surprised to read that "the crank of the engine is unlike that in any other," no reference of course being made to the inventor. — *Railway Age*.



AN ACCURATE PICTURE OF THE TRAIN PASSING DUNDAS STATION (FROM A PHOTOGRAPH).

### THE "GLOBE" SPECIAL TRAIN.

ON the 3rd of August next, *The Globe* Special early train to London will have been running every lawful day for seventeen months. This train, as is well known, rushes through from Toronto to London over the Southern Division of the Grand Trunk, carrying a large portion of the issue of the daily *Globe* for distribution throughout Western Ontario.

Those who are familiar with the Province of Ontario know what others can see by glancing at the map, that the Southern Division of the Grand Trunk forms an artery of traffic from which branch the veins north and south. Consequently, by traversing this main line at an early hour in the morning, all the branch lines are passed in time to leave papers to be carried out by the early trains to all the places upon these branch lines, in the majority of cases hours earlier than the other papers, which come by the regular trains. The magnitude of this enterprise was pointed out in *RAILWAY LIFE* shortly after the Special train began to run. It was stated at that time that it was a bold experiment, the success of which was doubted by many people at the beginning. It was a conjunction of the very best work of two of the greatest factors of modern progress, the newspaper and the railway. The work involved difficulties which do not affect the ordinary work of either, and a very slight mistake in the arrangements, or in carrying them out, meant all the difference between success and the most disastrous and disheartening failure.

The result has been a success which must be as gratifying to the authorities of the Grand Trunk as it certainly is to Canada's most enterprising newspaper, *The Globe*. The mere fact that the train has been kept running every day for fifteen months, the mere fact that the contract made with the Grand Trunk has been renewed, is, in itself, proof that the results have been satisfactory. The facilities for distribution thus perfected will bring the metropolitan daily within the reach of many who cannot make use of a paper that comes late in the day. The merchant and manufacturer can read his daily paper before the rush of the day's business begins, and thus the vast fund of information which every issue contains will be made to tell directly in improving methods of doing business. With his market quotations and world's news before him, the merchant in even a small town is equipped with one of the very best appliances for business which a man of the city possesses.

It is with no little pride that Canadians, and Toronto people particu-

larly, may contemplate the achievement of success by this new departure in railroading and newspaper work. It is another proof that in enterprise and administrative ability and executive skill we have men here who are the equals of any. In this connection railway men will read with especial pleasure what *The Globe* says about the way the work has been done. In a special article on the anniversary of the Special's existence, *The Globe* said: "The results of the undertaking have proved the wisdom of its origination, and the courage and enterprise of those upon whom it devolved to carry the scheme into effect. The efforts of *The Globe* Company and *The Globe* employees were nobly seconded by the Grand Trunk management and the brave and trusty crew of *The Globe* Special train. There has been no avoidable hitch anywhere. The arrangements have been all that could be desired."

Coming from such an influential source, this is high praise indeed, but not more than the Company, the officers, and the crew of the train deserve. *The Globe* Special train has been so great a success that it is now a permanent institution; and the hope of *RAILWAY LIFE* is that the next stride forward that *The Globe* makes, whatever it may be, may yield as great a return of good to the country at large, and to *The Globe* itself.

The above cut is an accurate picture of the Engine and Car used upon this train.

The Engine, No. 702, has 6 feet 2 inch driving wheels and was specially fitted up for this service as was also the Car No. 601.

The time leaving Toronto is 3.55 a.m., but as a stop is made at the Queen's Wharf for orders, the actual time of leaving the City is 4 o'clock. The run over the branch to the Junction Cut, thirty-seven miles, is made in forty three minutes which includes the stop at Burlington Crossing; fully five minutes delay occurs at this Cut in transferring papers to engine for Hamilton and places served by early train from that point. The next stop is Paris where water is taken, at Governor's Road another stop is made, crossing the Chicago Express, which generally occupies from five to eight minutes, from here the train runs to London without further delay, reaching that important centre at 6.35 a.m.

One hundred and eleven miles in two hours and thirty-five minutes, making four stoppages amounting to from twenty to twenty-four minutes is good time, and pretty hard to beat in this or any other country. This is not an occasional run, but an every day occurrence, and it is an exceptionally rare thing to find the train late, even in the hard winter weather when all other trains were hours late and many cancelled, this train invariably steamed into London Station sharp on time.



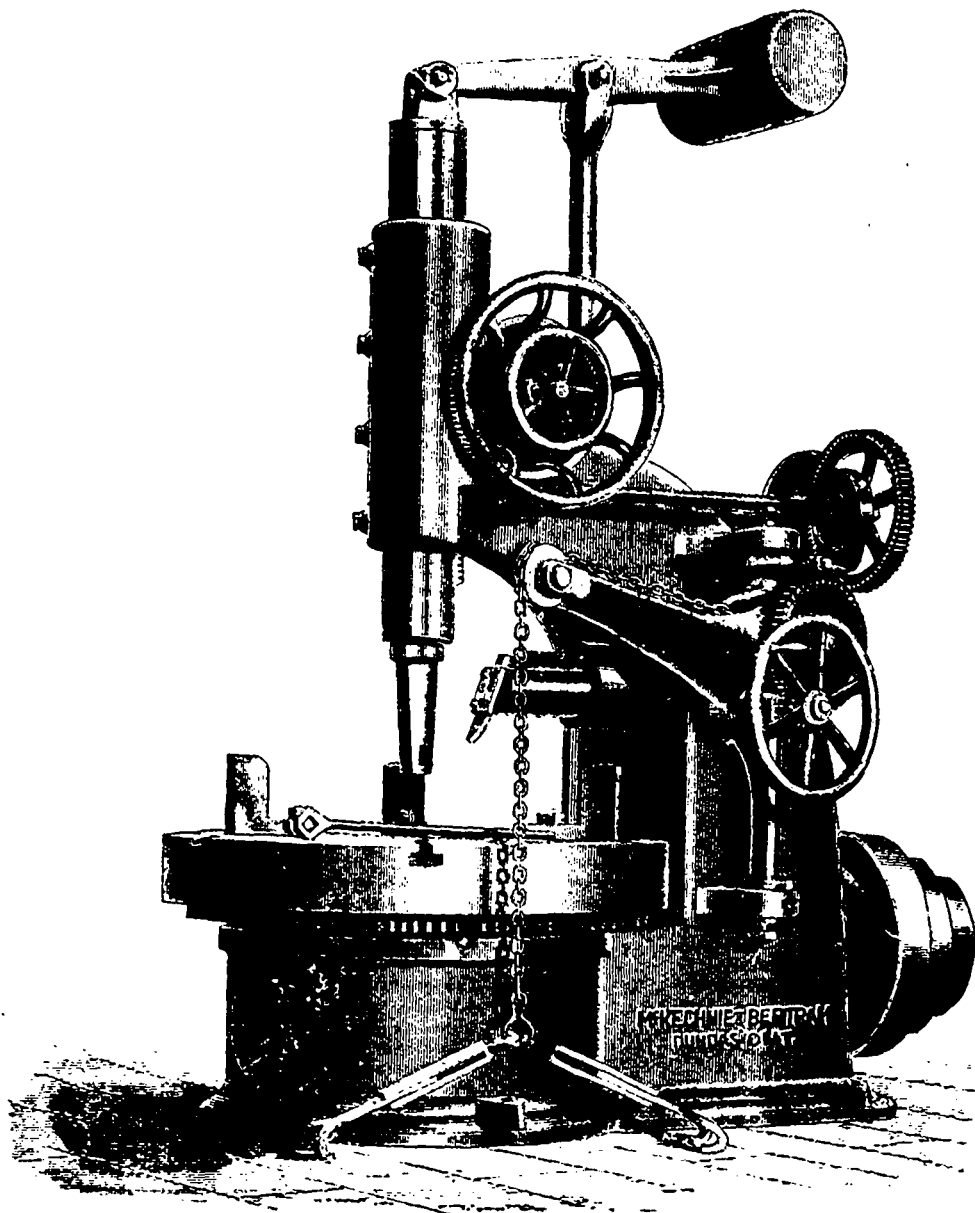
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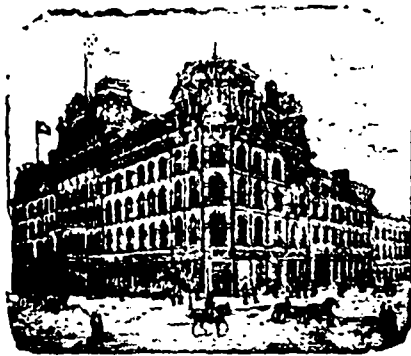
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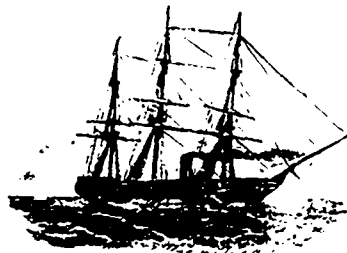
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