SIGHTS OF MONTREAL.

GREAT RAILWAY WORKS.

WORK AND WAGES.

CANADIAN LOCOMOTIVES.

CROFTERS IN CANADA.

AGRICULTURAL IMPLEMENTS.

PECULIARITIES OF FARMING.

(From the Weekly News of 29th July.)

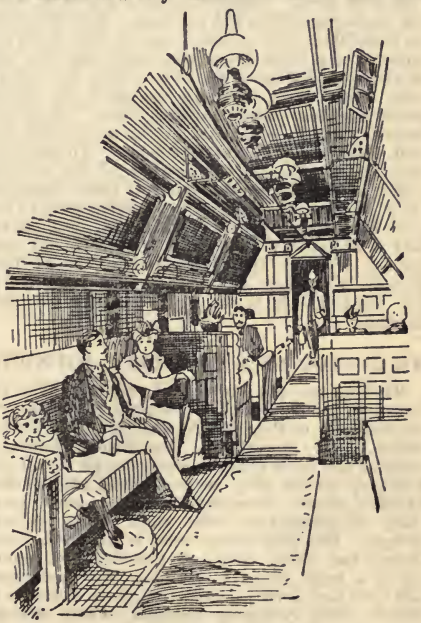
As they approached Montreal in the steamer Iona, the delegates obtained a splendid view of the commercial capital of Canada, and those from Dundee were struck by its remarkable resemblance to their native city. Spanning the river, a short distance up from the wharves of the great steam shipping lines, is the Victoria Bridge carrying the railway from the large island on which Montreal is situated to the mainland on the south. While rising from the level ground along the banks of the St Lawrence, on which the city is principally built, is Mount Royal, 700 feet in height. The Victoria Bridge, which is nearly two miles in length, rests on strong piers of solid masonry with gigantic buttresses on the upward side in order to protect the structure from being destroyed by the huge blocks of ice which are brought down from the upper waters in spring, and the trains run through a massive iron tube, similar to that which covers the Menai Strait, 22 feet high and 16 feet wide. The bridge cost altogether 6,300,000 dollars (£1,260,000). As a few hours intervened between their arrival and the hour fixed for their departure for Toronto, the delegates had

A Run Through the City,

and visited the large workshops of the Canadian Pacific Railway Company. Among the prominent buildings seen were Christ Church Cathedral (Episcopal), the finest specimen of English Gothic architecture in America; the Roman Catholic Parish Church of Notre Dame, the second largest on the Continent, and with sitting accommodation for from 10,000 to 12,000 persons; the Cathedral of St Peter, a still larger and more magnificent building, approaching completion; the City Hall and Court House, a large and handsome edifice; a splendid Post Office; and the Board of Trade and Young Men's Christian Association buildings, both imposing and well-appointed structures. In their tour through the city the delegates quickly noted some names in connection with laundries which appeared strange to British eyes, these being such as Long-Lee and Wang-Loo, and it was explained to them that Chinamen were what might be termed "washerwomen" to the whole of North America, all the laundries being practically in their hands. Great curiosity was also manifested in regard to the meaning of the sashes seen on a few house doors, and on inquiry it was ascertained that this was a custom connected with death in America. When a child under seven years of age died a white sash was fastened to the door; for a person between seven and twenty-one the sash is white and black, and for an adult it is wholly black. The day on which the delegates landed in Montreal was that of the marriage of the Duke of York to the Princess May, and testimony was afforded of the loyalty of the Canadians, flags and bunting being liberally displayed, and some fireworks were also seen. The population of Montreal, fully 250,000 in number, is mixed in character, the French being more numerous than the English-speaking citizens, but it is stated that the latter control both the commerce and manufactures of the city. A large number of the streets have distinctly French names.

RAILWAY WORKSHOPS DESCRIBED BY MR WATSON.

Mr Watson, Enginedriver, Dundee, visited the workshops of the Canadian Pacific Railway, and he states that the first in point of interest was the moulding department. Here they were making wheels for cars and brakeblocks for all sorts of freight and passenger cars. The most of their work was paid by piece. Most of the moulders made from 8s to 12s per day, while labourers earned from 6s to 7s per day. They worked 10 hours per day, starting at 7 a.m., dinner from 12 to 1 p.m., stop at 6 p.m. The same on Saturday. There were a good many Frenchmen and a few Scotchmen, the leading hand being a Kirkcaldy man, who was recognised at once by Mr Bennett. His name was Mr Mackintosh. He was very good in showing us round. He has been in America thirty-seven years, and said that their department was, in the meantime, very slack. I had not time to call at the engine shops owing to our short stay there, having to leave with the 9 p.m. express for Toronto. When arriving at the station, I was delighted to see such a nice entrance to the booking hall, but was surprised to find there were no platforms, only a deal floor about the height of the permanent rails; but, owing to the construction of the cars here, a high platform is not necessary. The cars on the Canadian Pacific Railway are something the same as the Pullman cars that run through our country. The 9 p.m. express was composed of six of these cars, which made a pretty long train. At 9 p.m. the engine bell began to toll, and the train moved away instantly. We were now seated in a very handsome car to take us on



INTERIOR OF CAR.

to Toronto, a distance of 338 miles. This distance was completed in nine hours, and three different engines were employed in this distance.

Canadian Locomotives.

In Toronto I went down to see the Grand Trunk engine shop, and had a survey of their engines. They differ in many respects in their construction from the engines in our country. They are all outside cylinders and no "splashers" over their wheels. They have a very large cab with windows in the side as well as in front. The foot plate round the boiler only extends about halfway forward. The smokestove is twice the length of the one on our engines. They have cow catcher in front, and wide-mouthed funnel with large lamp in front of it, and a large bell on top of boiler with a cord attached, which the fireman keeps pulling away at when moving near a station, or approaching level crossings. This avoids noisy whistling, but I would prefer the one about as soon as the other, for these bells do make a loud noise. When in bed I could hear them sounding nearly all the night. The most of the passenger engines are four coupled from 5½ to 7 feet driving wheels and two four-wheeled bogies under tender, all fitted with air brakes. They have not any side buffer. The buffer is in the centre, which serves as a drawbar as well. The cars are attached by one link and two pins, one at each end, put down through the drawbars and link. They have also some other kinds of couplings. The freight cars are nearly as large as the passenger ones, and are coupled much the same way. The employés are paid much higher than our home railway men.

Wages of Railway Men.

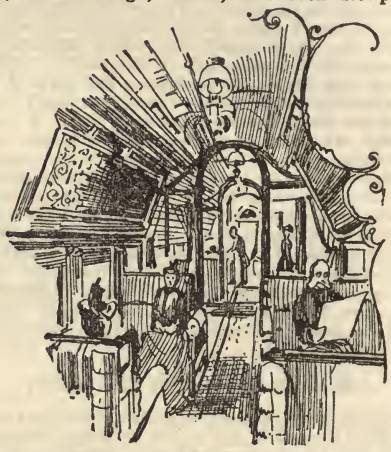
Fitters are paid 9d to 10d per hour. Apprentices serve five years. Their pay is—first year, 2d; second, 2½d to 3½d; third, 3½d to 4½d, and rise to 5½d per hour. They start work at 7 a.m., meal hour from 12 to 1 p.m., and stop work at 6 p.m. On Saturdays they stop work at 11 a.m., thus working a 54 hours week. Enginedrivers are paid by mileage, averaging 1½d to 1½d per mile. The miles run are from 100 to 162. Men running 100 miles are expected to get four hours' rest before starting, and men running 162 miles get twelve hours rest before being called out. Drivers are paid for thirty minutes before train starting time. Overtime caused by detention is paid at the rate of 10d per hour, but nothing for the first hour. Firemen are paid at the rate of 47 per cent. of the drivers' wages, and are allowed 45 minutes before starting. They get promotion by servitude, firing eight to ten years before being promoted to driver. Cleaners are paid 3s 9d per day. Goods guards or freight conductors running 100 miles average 7s to 10s; porters 5s 3d per day; pointsmen from 6s to 7s; yardsmen 7s to 8s. All servants are paid monthly.

MR DUNLOP AT A CANADIAN FOUNDRY.

Mr Dunlop, of Motherwell, reports:—To the Canadian Pacific Railway Montreal workshops we drove by way of Papinane Avenue and St Catherine Street. Mr Mackintosh, the Scotch foreman, received the deputation, showing us all round the foundry, where they were casting car wheels, hammer blocks, locomotive cylinders, and everything in connection with their great railway system. The iron chiefly used is got from Three Rivers and other parts of Canada, but, pointing to a large cylinder just cast, Mr Mackintosh said—"There is 50 per cent. of good Coltness in that." The annealing furnaces, where the car wheels are placed for eight days, was a point of interest to the delegates. The tradesmen's wages are from eight to ten shillings a day; labourers, five shillings. They have no regular system of apprenticeship, and anyone working two or three years about the shop gets a place as a tradesman. This loose system helps greatly to keep down wages. The foreman advised no one to come to Montreal in winter, as there is always a scarcity of employment at that season owing to the navigation being closed for five or six months by ice. They employ 150 men in the foundry department. Their hours are from seven to six, and they work to six on Saturdays.

THE OXFORD OF CANADA.

The Expedition left Montreal for Toronto on July 6 by the 9 p.m. Canadian Pacific western express, starting from Windsor Street Station, a stately stone structure in Dominion Square. When walking along the platform here one could scarcely realise that he was 3000 miles from home, as the names of the stations shown on the boards appeared quite familiar, these including London, Peterborough, Perth, and even Newport.



INTERIOR OF RAILWAY CAR.

The run of 330 miles from Montreal to Toronto was most comfortably accomplished in the sumptuously-furnished sleeping cars on the Canadian Pacific Railway, and the delegates were set down in a thoroughly refreshed condition at 7 a.m. on Friday, the 7th, at the capital of the Province of Ontario. Toronto, which has a population of 200,000, occupies a somewhat low though fine situation on the north-west shore of Lake Ontario. Being to a large extent a modern city, it is laid out on the rectangular plan, almost universal in America, and its leading streets are wide and well paved, while some of them possess beautiful avenues of trees. Toronto, with good reason, is particularly proud of its educational institutions, and it has the noble aspiration of becoming the Oxford of America. At the head of these institutions is the University of Toronto, a group of handsome and well-equipped buildings, and as a seat of learning unsurpassed by any on the American Continent. After breakfast at Walker House, one of the best hotels in the city, and in close proximity to the railway station, the delegates separated in order to visit the various places of interest in the city.

Electric Light in Toronto.

Mr Ebenezer Bennett, Electrical Engineer, Newcastle-on-Tyne, reports:—The electric lighting and motive power in Toronto is upon the low tension

system, and supplied by two companies, one supplying current for incandescent lamps and private motive power, such as elevators, &c., in private buildings, the other for arc lamps for street lighting, and motive power for tram cars, &c. The Incandescent Lighting Company, at the present time, is supplying current for close on 13,000 16 candle-power lamps. The cost to the consumer is on an average 6-10ths of a cent, or fully ½d per hour, for each 16 candle-power lamp. Its station is fitted on the Edison principle, having 10 dynamos, 6 of these generating a current of 600 amperes, and 4 at 400 amperes 120 volts. These are driven by five powerful steam engines made by the Armington & Sim Engineering Company, and run at a speed of 262 revolutions per minute. The other company, which is called the Toronto Electric Lighting and Power Company, make their own dynamos, of which they have no fewer than 60 at their station. These are driven from intermediate shafts, which are driven by leather belts, 36 inches wide, from six very powerful double cylinder engines, ranging from 500 to 1000 horse-power. They supply the current for arc lighting all over the city, and for the electric tram cars. These cars are fitted with an electric motor varying from 20 to 30 horse-power, and get the current from overhead wires. I think there is great room for improvement here. The first thing that strikes one in Toronto is the great number of telegraph poles that line the streets on both sides. These are for carrying the wires that convey the current for the electric tramcars. This would not be tolerated in any of our Scottish or English towns or cities, as at a very little extra cost they could be put underground. The people in Toronto whom I came in contact with were all very obliging and anxious to show me all they could, or give me all the information that was in their power to give.

A Fire Alarm.

Mr Donald Gibson, the city electrician, who was particularly attentive, showed me all round their fire station, or, as they term it, their fire hall. He very kindly introduced me to Mr Richard Ardagh, chief officer of the department, who, after a private consultation with Mr Thomson, his assistant, gave a false alarm. Everything being worked by electricity, the instant the alarm is given the stable doors fly open, the halter drops from the horses' necks, they bound forward to their places, and the men being already at their posts, the horses are harnessed as if by magic. From the instant the alarm is given till all is ready for the road is only 8 seconds. You can scarcely realise that an alarm has been given till they are on the road. There is only one weak point in the whole system that I could find. It is an instrument which registers the number of the box from which the message has been sent. The moment the push is touched the number of the box is thrown up, and at the same time all the other numbers are fixed in such a way that none of them can be worked until this number drops again into its place, which is done by means of a lever operated by clockwork. This takes one and a half minute, during which time no other message can be received. I pointed this out to Mr Gibson, and he admitted that it was a weak point, and that it had failed them twice to their knowledge during the last five or six years. This, I consider, is very serious in a large city. The first thing that the eye lights upon on entering the Toronto Fire Hall is a large notice board with the following :—

NOTICE.
Do Not Spit on the Floor.
Hands Off Brass Work.
The Lord Helps Them that Help Themselves,
But the Lord Help Them that Try to Help Themselves Here

TORONTO CONTINUED.

EDUCATIONAL INSTITUTIONS.

SCHOOL BOARD SYSTEM.

LARGE PUBLIC BUILDINGS.

STATE OF BUILDING TRADE.

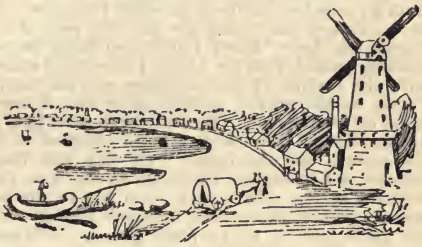
EVANGELICAL WORK.

Y.M.C.A. AND Y.W.C.A. IN CANADA.

LABOUR LEADER INTERVIEWED.

WAGES, HOURS OF LABOUR, HOUSE RENTS, &c.

(From the Weekly News of the 5th August.)



TORONTO IN 1834.

Mr Robert A. Muir, Hill of Beath, miners' representative, writing from Toronto, July 7th, says :—To-day we visited parochial, normal, and model schools and school of practical science, and were agreeably surprised to be received with the greatest courtesy from all with whom we came in contact, from the principal downwards, all of whom did all they could to make our visit a success by showing us through the classrooms and giving information. The three main features of elementary, secondary, and higher education are adopted here, and no one system trenches upon the ground of the other. The system included the kindergarten, public, and separate schools, High Schools, and collegiate institutes, and the University. The child enters the kindergarten at perhaps four years of age, and the Public School at six, and is prepared at about the age of thirteen for the High School. Four or five years at the High School or Collegiate Institution enables him to enter the University, where he attends four years, and gains his B.A. degree. The principles of the system of

UNIVERSITY OF TORONTO.

national education favour no class or sect. The rich and the poor meet together. Private schools are not

successful. The High School is the poor man's college, on account of the general desire of the community to exact low fees from students, and in a great many instances to charge no fees at all, and it is worthy of note that the highest distinctions in the University are most frequently gained by the sons—and the daughters, too,—of working men. The ratepayers (men and women) elect the trustees, who, within the provisions of the provincial statutes or regulations of the Education Department, appoint the teachers, and determine the amount to be expended for buildings, equipments, and salaries. It thus follows that the system of education in Ontario, is essentially democratic, and in those matters which affect the sentiments or touch the

Pockets of the People

each locality has almost entire control. No religious body has any voice in the management of the High and Public School, or the University. These institutions are, however, far from being godless or irreligious. The doctrines of no Church are taught, but the principles of Christianity form an essential feature of the daily exercises. As an instance of this I may cite the first rule of the Regulation Act—"Every Public and High School shall be opened with the Lord's Prayer, and closed with the reading of the Scriptures and the Lord's Prayer or the prayer authorised by the Department of Education." But no pupil need join in any exercise of devotion or religion objected to by his parents or guardians. Of the 128 High Schools and Collegiate Institutes 48 are free, and the fees of the others vary from 10s to £5 per month. In a great many instances school books are given free, or at wholesale prices. It is held that compulsory education is necessary if it is given free, and any person employing a child under the age of fourteen years during school hours is liable to a penalty of £4. The school of practical science was founded in 1877, and large additions were made in 1890. The latter was set apart for work in chemistry, mineralogy and assaying, while the engineering and architectural departments were accomodated in the new building which is now of great size, and a large portion of which is occupied by the engineering laboratory. This laboratory has been equipped with the most modern machinery and apparatus for carrying on original investigations in steam engineering, hydraulic and electrical engineering, strength of materials of construction, standards of length, &c. In the department of mining engineering there are laboratories for assaying, blowpipe analysis, microscopic lithology, &c. For instruction in surveying and practical astronomy, the school is supplied with a good collection of the ordinary field instruments, transit levels, &c., also splendid theodolites for astronomical work. The departments for instruction are :—1, civil engineering, including sanitary engineering; 2, mechanical and electrical engineering; 3, mining engineering; 4, architecture; 5, analytical and applied chemistry —which are all fully taken advantage of, as in some of the departments they have actually had to put two pupils to work in the space which was originally designed for one.

Technical Training.

In speaking to professor Galbraith, who is the Principal of the Science School, and who belongs to the Lothians of Scotlands, on the subject of technical education, he said—We consider ourselves bound to give the young men a thorough technical education, because we find that men so taught have taken mostly all the highest situations, either at home or abroad. He said it is sometimes argued that it is a mistake for any particular place to go in for technical education, because you may be learning men who when learned may go to other towns or countries, and give them the benefit of education they received in their own country, and which may be taken as being in direct opposition to their own particular branch of industry at home; but he went on to say this is a very selfish, as well as a wrong view to take of the matter, and to prove such was the case he said that out of 101 students who had graduated in engineering only 24 had left the country. The others had remained, and had done, and were doing, good work. Besides the school of practical science there is a large building which they call the School of Technology. This is attended by the young working men in the evening when their ordinary work is done. The subjects taught are the same as the Science School, and only thoroughly qualified teachers are allowed to teach these and all the other classes, and all teachers who may come to this Province to fill situations are required to pass an examination in accordance with the rules of the Province. All the departments of this branch of education are thoroughly equipped with models and appliances for the proper teaching of the different subjects.

Board Schools in Canada.

Mr Mungo Smith, Dundee, reports a meeting with several members of the Toronto School Board in the Secretary's office and a visit to the Church Street Public School, there being present Mr Wilkinson, secretary and treasurer; Mr C. H. Bishop, superintendent of buildings; Mr J. Hambly, Mr W. W. Hodgson, and Mr Douglas, members of the School Board. These gentlemen gave us a hearty welcome, and we found in conversation that education in the Public Schools is managed with great care. The Board is composed of twenty-six members, one of them a lady (Mrs Mary M'Donell). There are six districts, and two members retire each year. All classes are taxed for education, and are entitled to vote. Education is compulsory from the age of eight to fourteen, and education and school books are free. There are in Toronto 48 Board schools, with 600 teachers. The salaries of pupil teachers are £60 and upwards. The salaries of headmasters are on a slid-

CHURCH STREET SCHOOL, TORONTO.

ing scale, commencing with £140 for the first three years, from three to seven years £240, and rising £30 a year until they reach £300, which is the maximum. Female teachers have the chance to the same salary if they can write B.A. to their name. The Board give notice to the Town Council at the beginning of the year what they want for school purposes, and the Council have to provide that amount, but if the Council think the Board is going too fast or acting extravagantly they can refuse, and if they do so a vote of the ratepayers is demanded on this grant, and their decision is final. The arrangements of the scholars are as near perfect as any one can conceive. The divisions or class rooms have every appliance for the carrying on of the work. Black boards are around in the whole of the rooms, and the desks, which hold two, are all facing the teacher's chair, each room having its own size of desks, acording to the age of the child. There is a complete speaking arrangement of tubes connecting the whole rooms, and there is also a fire alarm bell. If a fire should arise in any of the rooms the connection is pulled, and the alarm is given all through the school.

The Pupils Form Four Deep,

one of the teachers taking his position at the top of each stair to prevent crowding. The children immediately trip out and empty the school of 1000 in two minutes. They have a drill instructor, and great attention is paid to this; also a music master. The total number of pupils on the register is 32,017; average daily attendance, 21,585; value of school properties, £300,000. They paid in salaries during the year £58,860. Out of this amount there was paid for officers' salaries £3104. This is a very large amount of money, but I consider that they have a thorough educational system in Toronto, and must say I was very highly gratified with the kind reception we got and the readiness to give us all information. The School Board of Dundee should send a deputation out there to get a few wrinkles, and I guess they would get them. Toronto has an industrial school for truant boys. Their training is similar to our own. Sunday observance is very good; there are no public amusements on the Sabbath day. Toronto is styled the City of Churches, and it deserves the name, as they are very numerous. All the gentlemen I spoke to on the subject told me the seventh day was well observed by all classes.

The Licensing Question.

Mr Mungo Smith also reports:—The Town Council of Toronto have the power to limit the number of licenses. Questioning a friend—Do you find that properties rise in value when they get the license? A.—To a certain extent. But if an exorbitant rent be charged above the other shops they are told the license will be taken from the house. All publichouses shut on Saturday night at seven until Monday morning, and also shut on election days. The part of the town I saw on Saturday night was very quiet. Cooling drinks are as much run upon here as beer is at home. Sanitary arrangements are very well looked after in Toronto. The Board has great powers, and, what is more, they put them in force.

ONTARIO PARLIAMENT BUILDINGS.

Mr Sinclair, Cambuslang, representative of the building trades, reports:—I visited the Parliament Houses, Toronto, and inquired for the Clerk of Works, who very kindly took us over the buildings and gave all information regarding them. It is six years since they were commenced, and he made a boast that they were the only buildings of note in Canada or America that had been finished

ONTARIO PARLIAMENT BUILDINGS.

without any extras over the estimated cost of £250,000. (The architect, Mr Richard A. Waite, is an Englishman from the county of Kent.) The buildings are situated at the southern end of Queen's Park and have a total frontage of 500 feet, the main entrance forming a double letter E and enclosing within its walls over 76,000 square feet. In architectural design it is Romanesque. There is a great deal of carving all round the building done in a conventional style. It represents the Canadian maple leaf, the Scotch thistle, the English rose, the Welsh leek, and the Irish shamrock, the largest specimen of carving being a sculptured frieze 70 feet long, 15 feet high, surmounting the three great windows in the centre structure. The stonework represents in heroic size allegorical figures of music, agriculture, commerce, art, science, law, philosophy, architecture, engineering, and literature grouped on either side of the arms of the province. The stone used is reddish brown, and comes from Credit Valley, thirty miles from Toronto. The main entrance is composed of three noble arches, 18 feet by 26 feet high. These arches rest on six clustered columns, the caps being 9 feet long, 6 feet broad, and 2 feet 2 inches thick, all beautifully carved. Right through the corridor are the various offices in connection with various officials. On the second floor is the Legislative Chamber, which accommodates 91 members. It is elaborately fitted up with the electric light, has the best possible means of ventilation, containing a patent automatic thermometer which keeps the Chamber steady at whatever temperature is required. From the floor to the ceiling it is 52 feet. Each of the various Ministers has a fireproof room for all his papers and documents of value.

TORONTO MUNICIPAL BUILDINGS.

Mr Sinclair also reports:—On arriving at these buildings my first inquiry was for Mr Alex. Marshall, the head foreman, who gave me a very warm reception. Mr Marshall was for many years a foreman mason in the old country, being a native of Carluke. The Municipal Buildings have been four years in course of construction, and will occupy four years yet before completion. Mr E. J. Lennox, of Toronto, is the architect. They are to be used for City Hall and Courthouse. One fine feature of this building will be the tower, which is to rise to a height of 250 feet. The foundation for this tower, 76 feet square, is thirty feet below the level of the road, and built of solid limestone set in cement. The walls all round the building are 7 feet 9 inches thick at ground floor on each of the four sides of the building. There will be a frontage of 300 feet. There are two kinds of stone being used—one a brown stone, which comes from New Brunswick, travels 1000

TORONTO MUNICIPAL BUILDINGS.

miles by rail and 50 miles by water, and costs, laid down at building, $1.15 (4s 7½d) per cubic foot. The other stone is a grey stone, very hard and difficult to work. It costs 65 cents (2s 8½d) per foot. Stonecutters are the highest paid tradesmen in connection with the building trade. They receive 43 cents (1s 9½d) per hour, and work nine hours per day. Commencing work at 7, they work on to 12, then stop one hour for dinner, and stop on Saturdays at 12—working in all 50 hours per week. The stonecutters of Toronto are well protected from the sun's rays. They have comfortable sheds, well ventilated, and any who are working outside have portable shades, made with four light posts and covered with canvas. They have a rail track all round the building, and have no lifting as in Scotland, the cranes doing all that. They have 19 derricks all wrought by 6 stationary steam engines on the ground, avoiding the terrible noise we are so accustomed to at home at buildings where steam cranes are used. These buildings when finished will be the largest municipal buildings in America with the exception of those in Philadelphia. They were estimated to cost $1,500,000 (£300,000), but will exceed that amount before they are finished. The original contractors, Elliott & Neelon, having given up the contract, the Corporation are finishing the work themselves. There are 120 stonecutters, 30 bricklayers, 2 setters, and 2 stonemasons employed there. The trade society in each of these branches is very strong, and carries out the rules to the very letter. Bricklayers have 36 cents (1s 6d) per hour; labourers, 21 cents (10½d) per hour, also 50 hours per week. I asked Mr Marshall if he thought a working man was much better off here than in the old country. He said certainly, they had more money, more leisure, and more comfort every way. The sanitary condition of the town is fairly good, and the water supply comes from Lake Ontario.

TORONTO YOUNG MEN'S CHRISTIAN ASSOCIATION.

Mr Dunlop, Motherwell, reports:—Our deputation was received by Mr Scott, the assistant secretary, who hails from Edinburgh. He courteously conducted us all over the building. The Secretary (Mr M'Culloch) is also a Scotchman. The building has been erected at a cost of $110,000 (£22,000). The largest hall is the auditorium, where there is a fine organ. It is seated with light chairs for 1200, and all large meetings and important gatherings are held in this hall. They have also a lecture-room seated for 500, where lectures, &c., are delivered during the winter. They have a reading-room with all the magazines and weekly papers from the old country, a library with 1000 volumes, and a members' parlour with piano. The gymnasium for recreation is a fine hall, with walking or running track, dumb-bells, trapeze, chest exercises, &c. Off this hall there are also swimming baths, &c. The work is actively engaged in, and special meetings are held often. There are gospel meetings every Saturday, and meetings for policemen every Wednesday at 3 o'clock. Young men coming from the old country are looked after, and they try to get them to join some of the churches in town. The membership consists of active or associate members. An active member must be a member of one of the churches. The terms of subscription are £1 per annum; boys, 10s. They have four branches in Toronto. The president is Mr D. M'Laren, who takes an active interest in the work. Any visitors from the mother country who take a part in evangelical work will be pleased to see the above institution, where they are sure of a hearty welcome.

TORONTO YOUNG WOMEN'S CHRISTIAN ASSOCIATION.

Mr Dunlop also reports:—At the above Association in Elm Street we received a hearty welcome from Mrs Bailey, the lady superintendent. The object is the temporal, moral, and religious welfare of young women who are dependent on their own exertions for support. They have an employment bureau, and at present the demand for help is greater than the supply. Classes are conducted in cooking, general improvement, dress-cutting, and making, &c. The cooking classes are specially well attended. The boarding house is a feature of the institution. The price for board is from 9s to 15s per week, and about 60 boarders are at present there. They have a lecture hall, reading-room, reception-room, and sitting-room, all of which are splendidly furnished. The bedrooms are cheerful and bright apartments, with high ceilings, and perfect models of cleanliness and comfort. The whole arrangements are a credit to the lady superintendent. The same table is provided for all, the only difference being in the price of rooms. The board of management consists of a president, 6 vice-presidents, 45 directresses, a secretary, and treasurer. Their duties, assisted by all the members, are the seeking out of young women who come to reside at Toronto, securing their attendance at some place of worship, and surrounding them with Christian associates. On leaving the city they are furnished with letters of introduction from the Association. Any one who desires to see a model institution, if they are on a visit to the Dominion of Canada, should not fail to pay a visit to the above, where they are sure of a cordial reception from Mrs Bailey.

INTERVIEW WITH A LABOUR LEADER.

Mr Murray, the Conductor of the Expedition, reports:—

During the stay of the Expedition in Toronto I was fortunate in obtaining an interview with Mr Alfred F. Jury, a tailor. Mr Jury is one of the most prominent labour leaders in the city, and is a member of the Executive of the District Assembly of the Knights of Labour, a body with a broad, Radical platform, very similar to that of the Labour party in Great Britain, and he is also a member of the Legislative Committee. The

Prospects of Artisans in Toronto

at present are, he stated, far from bright. The labour market is overstocked, and the building trades are particularly dull, except as regards the stonecutters, in connection with whom there is just now a little stir on account of the erection of a new city hall and Courthouse, and the departure of a large number of men for the States last fall and this spring through the long delay in starting work.

The Tailor Trade.

Concerning his own trade, he said the tailors were paid on a time-log resembling that in operation in Glasgow and other large towns in Great Britain. In one or two shops the men were paid 21 cents (10½d) an hour, while in other first-class shops the rate was 20 cents (10d) an hour. Pant-making was almost wholly in the hands of girls. A man received the cloth from the shops, and hired roomy and well-ventilated workshops in which the girls sewed the garments for which they were paid from 50 cents (2s) to $1¼ (5s) a day according to their ability, the contractor getting for his superintendence, &c., a sum ensuring him a good living. Girls themselves took out vests to make, and were paid from $1 (4s) to $1.50 (6s) by the good shops.

Labour Organisations.

Several trades were well organised, amongst the strongest of these being the stonecutters, who had an eight hours day, while others, and particularly those in the iron trade, wrought 9 to 9½ hours a day, or 51 and 52 a week, and finished at noon on Saturday. The bakers were amongst the worst off of all, and had to labour 70 or 80 hours a week; in fact, they had just to work as their employers ordered them. They had a good organisation some years ago, when they had a nine hours day, but as soon as they got a little power they were like a good many other people, and did not know how to use it judiciously. Consequently they lost the sympathy of the public, and being split up by internal dissension, they were now working all kinds of hours. The male tailors were well organised, but they had not been so successful with the female operatives. As an instance of the advance which had been made in his own trade, he mentioned that in 1873 the maximum price paid on an ordinary tailor's log was 15 cents (7½d) an hour, while now with no better log it was, as he had said, from 20 cents (10d) to 10½d. A large number of females were also employed in boot and shoe manufactures and in bookbinding, stationery, and printing establishments, and likewise in stores, but, excepting the wife of a liquor seller, there was practically no woman employed at a publichouse bar in the whole country.

Labour Representation.

On the question of labour representation, he said that the Technical Schools Board, which was appointed by the City Council, was composed to the extent of one-third of the representatives of labour. At the last municipal and School Board elections labour candidates, of whom he was one for the Council, were run in every ward, but none of them were successful. The poll, however, closed at five o'clock, so that working men did not get a fair chance of recording their votes. "I wish," he said ardently, "we had the polling hours that you have in the old country. You are ahead of us there." In continuation, Mr Jury said that his expenses were paid, but if elected he would have given his services without any remuneration. For the Provincial Parliament they had manhood suffrage, and for a vote in the Federal Parliament election a man had to earn $300 (£60) a year, or rent a property of the annual value of $20 (£4) in the cities, the rents required to be paid in the towns and villages being lower.

House Rents and Living.

As regards rents in Toronto, they were, he said, at present at the fag end of a real estate boom, and good houses could be got for a comparatively small sum. The rents of working men's houses in ordinary times ran from $7 (£1 8s) to $12 (£2 8s) a month, these figures including taxes, which were paid by the landlord. For the former figure an artisan would get a back-lot house of four or five small rooms, while for the latter he would get a small house of five or six rooms, with a bath and water closet. A single man who did not rent a house was liable in a statute labour tax of $2 (8s) annually, but it was evaded by 99 out of every 100. Asked if working men could save more in America than in the old country, Mr Jury said that altogether depended upon whether a man was provident or not. Being questioned as to whether the conditions of labour generally were better in America than in the old country, Mr Jury said that employers of labour seemed to have the faculty of getting more out of men on that side of the Atlantic than on the other. Q.—Do you think this is due to any superiority in the tools used? A.—I don't think there is much in that, although there may be something in the subdivision of labour and in the way things are run here. They drive at a fast rate, and the difference mentioned may be due in some way to the want of organisation in certain trades. Altogether, however, I think that employers here are meaner than those in the old country.

IN A FURNITURE FACTORY.

WAGES OF CARPENTERS.

DELEGATES AT NIAGARA.

IMPRESSIVE SPECTACLE.

THE ELECTRIC RAILWAY.

UNDER THE FALLS.

ELECTRIC AND WATER POWER.

FEAT OF A MODERN BLONDIN.

(From the Dundee Weekly News of 12th August.)

Mr Thomas Logan, Glasgow, woodworkers' representative, writes:—On arriving at Toronto Mr Brown and I visited the furniture factory of Messrs J. Rodger & Co. On our explaining the object of our mission Mr Rodger was delighted to meet a deputation of workmen from Scotland, at the same time stating he was a Scotsman himself, and came from Glasgow. Mr Rodger states that the cabinet trade is very dull at present in Toronto. The average number of men in his employment is about 40, which includes cabinetmakers, carvers, upholsterers, varnishers, and machinemen. The building consists of two flats. On the ground floor the machinery for the preliminary processes is placed. The other flat is occupied with the cabinetmakers and carvers. The class of work that was being manufactured was what I consider second-class, and does not call for any special mention. Oak is the principal wood that is used in the manufacture of furniture of every description. The following is a list of the wages in the furniture trade in Toronto:—

Cabinetmakers, 22½ cents per hour (11¼d); carvers, 21 to 30 cents according to ability (10½d to 1s 3d); upholsterers, 25 cents (1s 0½d); varnishers, 18½ cents (9¼d). The number of hours wrought is 55 per week, 9½ hours per day, and a half-holiday on Saturdays. No piecework is wrought in Toronto, and there is scarcely such a thing as an apprentice to be met with in the furniture trade of Toronto. Employers find they do not pay, and prefer workmen ready made.

Carpenters' Wages.

Mr Brown, of Govan (representative of Carpenters), has prepared the following tabular report :—

CANADA.

Towns.	Day or Hour.	Hrs. of W'rk		Wages.							
		Summer.	Winter.	Summer.				Winter.			
				$	£	S.	D.	$	£	S.	D.
Hamilton,	hour	55	47	12.38=2	9	7		10.57=2	2	4½	
London, (Ont.),	,,	54	48	10.80=2	3	4		9.60=1	18	6	
Montreal,	,,	60	48	11.25=2	13	0½		9.00=1	16	0	
Toronto,	,,	50	44	12.50=2	10	0		11.00=2	4	0	
Vancouver,	day	54	48	18.00=3	12	0		16.00=3	4	0	
Victoria,	,,	54	48	18.00=3	12	0		16.00=3	4	0	
Winnipeg,	hour	53	48	14.57=2	18	4½		13.20=2	12	10	

In Toronto they have no half-holiday on Saturday afternoons. Their wages are paid fortnightly —on Mondays. They are *not* allowed anything extra when working overtime—bare time only. They do not join apprentices to the trade. Young men are paid according to their ability. They begin work at 7 a.m. till 12, dinner till 1, and work till half-past 5 p.m. A five-roomed house rent costs $9 or $10 (£1 16s to £2) a month, and young men pay for board about $3½ a week (14s to 16s). Trade is not too good for carpenters at present here, and work scarcely to be had in winter at all. I would not advise anyone to come here at present.

The Newspaper Offices—Type-Setting Machines.

Several good newspapers are published in Toronto, and these are well supported. Among the leading journals are the *Mail*, the *Globe*, and *Empire*, all with fine offices, which I had the pleasure of a run through. The *Mail* and *Empire* are set up by means of Roger's typograph, which is wrought by means of a keyboard, similar to that of a typewriter. As a key is pressed the type falls down into a mould, and when a line is completed it is adjusted through the spaces, which are wedge-formed, being made to revolve until the exact length is secured. It is then cast, and the types are at once distributed, returning to their former respective positions to be reset when required. The wages paid by the *Mail* are as follows :—Night operatives, 48 hours per week, $15 (£3); students, for a period of six weeks, same hours, $12 (£2 8s); day operatives, 48 hours, 30 cents. (1s 3d) per hour. In addition, a bonus of ten cents. (5d) per 1000 is paid for all work over 100,000 ems a week. As an instance of the speed of the typograph, it may be mentioned that nineteen operators, only six of whom had been on machines for more than three months averaged 1600 ems per hour, but the average speed of fair operators is 2000 to 2500 ems an hour. The *Globe*, on the other hand, is set by means of Linotypes, and the wages paid are also $15 (£3) per week, with a bonus of 12½ cents. (6¼d) per 1000 ems in excess of 120,000. The foreman mentioned that in the previous week a man set 48 columns (200 13-pica lines) in 48 hours, and earned a bonus of $12·50 (£2 10s.) The Linotype is larger than the Typograph, but it is operated on somewhat the same principle. Electricity is the motive power in use in both offices. It is admitted that the machines do not yet work so satisfactorily as they might do, but it was stated that with the best operators they were least liable to get out of order.

UNION RAILWAY DEPOT, TORONTO.

Leaving Toronto on the afternoon of Friday, July 7, the delegates proceeded to visit the Falls of Niagara. The trip to Queenstown was accomplished in the large and splendid saloon steamer Chicora, belonging to the Niagara Navigation Company. From Queenstown, which is situated on the Niagara River, at the south-west end of Lake Ontario, a new electric railway runs all the way along the very edge of the deep gorge of the Niagara River to Chippewa, about four miles beyond Niagara Falls, and it was by this means that the delegates travelled to their destination. In winding up the steep incline from Queenstown numerous large peach orchards and gardens of grapes were passed, and as the darkness came on myriads of fire-flies were seen darting through amidst the bushes and trees. We saw very little of the great river, but we could easily hear the noise of its waters rushing along at headlong speed about 200 feet underneath us. The fact that we were running along on the very brink of the almost precipitous bank with absolutely no protection between us and engulphment in the raging torrent should any accident overtake our jerking car was only too apparent, and more than one gave vent to a sigh of relief when the party was safely set down at the end of the fine new foot and carriage suspension bridge, with its span of 1268 feet. From this point the delegates obtained their first view of the great falls, and, although all that was visible in the darkness were two great white sheets of water, illuminated by electric light lamps, the noise was almost deafening, and one can easily understand how the Indians gave to the falls the name Ni-a-ga-ra—"the thunder of waters.'

SUSPENSION BRIDGE.

After crossing the bridge we set foot for the first time on the soil of the United States, a fact at once made evident to us by a customs official demanding to know from whence we came and what our baggage contained. That right, we all sat down to supper in the Cataract Restaurant, in Niagara Falls City, which is "run" by Mr Geo. E. Allen,

who is also manager of the Niagara Club. Mr Allen was formerly in Dundee, but has been about five years in the States, and during half that time he has been located at Niagara Falls. He reports that he is doing well. After a good night's rest at Niagara Falls House, a very comfortable hotel, the delegates on Saturday morning proceeded to view all the features of the most gigantic natural phenomenon on the American Continent. Recrossing to the Dominion side, they drove through the Queen Victoria Park to Table Rock House, where the Canadian, or Horse Shoe Fall as it is termed on account of its form, was seen in all it beauty and grandeur. The great volume of water was pouring over the precipice into the fearful depths below with almost deafening noise, and the spray was rising in a dense mass to about 100 feet higher than the tumultuous torrent before it takes its dreadful plunge completely concealing the lower part of the fall. The wind was blowing hard down the river, and at Table Rock House, as well as in crossing the bridge, the delegates came in for a good share of the spray. The sun was shining brilliantly at the time, giving to the falling water a beautifully bright green appearance, and several grand rainbows were also witnessed. A good sight was also obtained of the American fall on the other side, and the little steamer, the Maid of the Mist, was observed to steam right up into the spray of this fall, and then

FALLS FROM PROSPECT POINT.

crossing to the Canadian side proceeded towards the stupendous cataract until the terrific current compelled her to turn round and return to the other bank. The Canadian fall is 2000 feet in width, and 154 feet high, but the American fall, although 9 feet higher, is only 1100 feet wide. It is calculated that about 100,000,000 tons of water come thundering down over these vast precipices every hour, and the action of the water is wearing away the rock at the rate of about one foot every year, the recession in the memory of even middle-aged persons being considerable. Donning oilskin suits the delegates descended by means of an elevator to the level of the river, and following a narrow pathway under the edge of the overhanging cliff, they entered a small tunnel cut out of the solid limestone rock. After penetrating its gloomy recesses for some distance they came to a point where they stood right behind the great cataract, which was falling down in one vast mass of bright green water close to their very faces. Some of the more adventurous spirits placed their dripping heads out beyond the face of the precipice in order to have an upward glance, but were constrained to depart without having their desire gratified. In returning several also proceeded out on shaky planks, and climbed the slippery stairs in order to reach a large rock at the very edge of the fall, but the blinding water and the raging winds allowed them to retain their foothold for only a few seconds. While in their oilskin suits the delegates were photographed along with Mr Frederick Thomson, one of the proprietors of the *Weekly News*, and Mrs Thomson, who accompanied them all the way from Montreal to Niagara Falls. Returning to the other side, the party drove through Prospect Park, belonging to the State of New York, and round Goat Island, which divides the Canadian from the American fall. When at the lower end of Goat Island the American fall was viewed to much greater advantage, and numerous beautiful rainbows were seen. From Goat Island the delegates visited the Three Sisters, connected with each other, and the Goat Island by means of neat, substantial wooden bridges and standing out in the rapids where the waters rush along in a wild, mad, tumultuous race tearing themselves into foam and fury every few yards before plunging themselves into the horrible abyss below the Falls. Some distance beyond the outermost island, and driven hard against gigantic blocks of rock, which had so far baffled the seething torrent to hurl them over, was a large log on which several daring visitors had carved their names, but such was the position of the log that one could not help feeling that some of these in returning had paid with their lives for whatever fame they might have achieved. Some of the rocks on the margin of the rapids were visited by a few of the delegates, but no one ventured more than a safe distance.

The Falls could not have been seen under better conditions, although it may be necessary to explain to some of your readers that Niagara was not specially turned on for the benefit of the delegates of the *Weekly News*. They were not turned on, for the simple reason that they could never be turned off by mortal hand. The first view, it must be confessed, was to some extent disappointing, the vast breadth of the river making the Falls seem of much less height than they really are, but after one had descended to the level of the river and explored the wonders of the place from various standpoints, he stood impressed with his own insignificance and the omnipotence of the Creator who formed them. It may be interesting to mention that one of the hackmen engaged in driving the party round was a negro who made his escape from slavery in Old Virginia forty years ago, and after travelling 2000 miles and crossing the St Lawrence, reached British soil. Then he said, "Golly, massa, me danced and sang with joy when I got under de British flag, and I never cease to bless it yet."

In the course of the day the delegates also visited a paper mill and the electric and water power works in connection with the Falls, and in the evening they returned by electric car and steamer to Toronto, the 40 miles' sail on the lake in the cool of the evening being greatly enjoyed. When the car was between the railway bridge and the old suspension bridge over the Niagara River two miles below the Falls it was stopped for some minutes and the passengers had an opportunity of witnessing a wonderful performance by Calverley, a young Canadian, who is said to outdo Blondin, the great rope walker. At the time the car halted the delegates saw Calverley walking on a wire rope

stretching over the gorge, with the river rushing along 200 feet below. The daring performer then executed some bold gymnastic feats, including the suspension of himself by his toes with his head downwards. At this stage many of the spectators, thinking probably of the dreadful consequences of the slightest slip, turned away shuddering from the sight, but the bold gymnast pulled himself up again and safely reached *terra firma*. In running down to Queenstown a good view was also got of the famous whirlpool rapids—where the unfortunate Captain Webb was drowned in his attempt to swim them—and also of the whirlpool itself, round the brink of which the electric cars run. Every one of the delegates noted that throughout the whole day and during the run back to Toronto on a steamer, with several hundreds of passengers, not one person the worse of drink was seen, and in answer to inquiries on the subject they were informed that in Toronto the publichouses were closed from 7 p.m. on Saturday to 8 a.m. on Monday—although they were open later on the other evenings of the week—and the want on Saturday evenings of the accommodation afforded by these establishments was not felt either in the great warmth of summer or the sharp cold experienced in winter.

Niagara Falls Railway.

Mr Ebenezer Bennett writes :—This railway, which is electrical, is worked upon exactly the same principle as the electric tramcars in the streets of Toronto, the current being taken from overhead wires on the one side and from the rails on the other. The railway is laid along the edge of the bank from Queenstown to Chippewa, a distance of about thirteen miles all uphill, the grade being about 1 in 20. The cost of travelling the whole of the distance is 30 cents single, 50 cents return, and for short distances, such as from one station to another, the fare is 5 cents. The conductors and drivers on these cars work ten hours per day, and are paid from $45 (£9) to $60 (£12) per month.

Mr Muir. Mr Murray. Mr W. Smith.
Mr Osler. Mr M Smith. Mr Brown. Mr Watson. Mr Taylor.
Mr Logan. Mr Bennett. Mr Dunlop. Mr Sinclair.
Mrs Thomson Mr F. Thomson.

THE POWER HOUSE.

Mr Muir writes :—The Company's electric power house stands close to the side of the Falls, and has a capacity of 3000 horse power. In its construction many difficulties were met with, but all were overcome. The water is taken from the rapids just above the Falls by a flume 200 feet long to the gates. Here it plunges through three tubes 7½ feet diameter to a depth of 62 feet on to the turbines, below, which are 45 inches in diameter. It is then carried away by a tunnel 600 feet long, discharging underneath the Falls. The power is conveyed from the turbines by means of vertical shafting, which gears by means of heavy cog wheels into a horizontal shaft, and from there into the dynamos, in such a manner that a great number of these machines may be used as necessity demands. In designing the house, provision has been made for dealing with the great quantities of ice which come down the river in winter by providing a large overflow, which can be used as required.

The Paperworks at Niagara.

Mr Smith, Denny, writes on Saturday, July 8 :—I had a run through the Niagara Wood Paper Company's Mill at Niagara Falls. They used to make wood pulp, but they started about two months ago to make paper, and are putting in splendid new machinery. They are at present driving all the mill with steam power, but they are constructing a new canal in order to get a driving water supply, and are putting in three turbine wheels, which will give them 1100 horse power each—in all 3300 horse power. The turbines are sunk down 175 feet below the water level, which will give them a water fall of 160 feet, this being equal to ½-lb. to the square inch of power. The pit is 175 feet deep, 45 feet wide, and 55 feet long, and the water is taken away by a tunnel. There are twelve sluices in the new canal, and every work will have its own supply from the river. The cost will be something like 1½ million dollars (£300,000). The Company has one machine running making cardboard paper. There are eight making drums on the machine flat strainers, first and second press rolls, forty-five drying cylinders, but no dry felts ; two sets of calenders, seven rolls in each set ; a fine slitter and winding machine. It is a splendid machine, 120 inches wide, and was running at the rate of 130 feet per minute. It is driven by a Corliss engine, and speed is regulated by cone pulleys. The machinehouse is built of brick, with iron joisting. It is well-lighted and well-ventilated. The back shafting is all above, but they have one pulley for each section, which is a great improvement by the back shafting being all on the floor. The beaterhouse is on a level with the machinehouse, and they work the Horne beating engine in a well-lighted and ventilated house. It is all wood pulp they work, sulphite and mechanical. The building is able to hold four machines, and the Company is putting up another one. They have ten wood grinders, so that they can grind their own wood ; three steam boilers with mechanical stokers, which they say do well. The building is well-situated, with a grand water supply and a railway into the works, and with the splendid machinery the Company is putting in, they should have a magnificent mill, and be able to point to it as a model establishment. The prices of wood pulp they were using were as follows :—Mechanical, $1.5 (4s 4d) per cwt. ; sulphite, nearly 3 cents (1½d) per lb.

Canadian Paperworkers' Wages.

The shift men work 12 hours the first five days of the week, and on Saturday they work till eleven o'clock at night—17 hours. The labourers and day's men work 10 hours for the first five days, and 9 hours on Saturday. Machinemen's wages run from $2 (8s) to $2½ (10s) per day ; beatermen's, $1.75 (7s) to $2¼ (9s) ; assistant machinemen, $1¼ (5s) to $1.35 (5s 6d) ; assistant beatermen $1¼ (5s) to $1½ (6s) ; labourers, $1 12½ cents (4s 6d) to $1¼ (5s). Females on piecework cutting rags have 20 cents (10d) per cut. They have no finishing house overhaulers. Boys and girls must be sixteen years of age before they get into work in the mills, there being no halftimers such as we have at home. Scotchmen are very well liked in the paper trade, and they are well to the front in holding good positions. There is no trade society or union among the papermakers in Canada. They employ their leisure in games of lacrosse, base ball and cricket. Horse-trotting is also a favourite sport.

Carpenters' Wages, &c., at Niagara, U.S.

Mr Brown reports carpenters work 60 hours per week, they have no half-holiday on Saturdays. Some are working even 12 hours daily. There is at present a large job (Tower Hotel) going on, employing upwards of 30 carpenters. A Boston firm has the contract. They pay only $2¼ (9s) for a day of 10 hours here, while the same firm pay the same amount for a day of 9 hours at Boston. Wages are paid fortnightly (Mondays). Apprentices are not recognised here. Young men are paid some thing like $1 (4s) a day to begin, and are expected to pick up the trade for themselves. They have little or no union amongst them, and trade is not very brisk at present. They do not get any allowance if they work extra hours. The cost of living at Niagara for tradesmen is very dear.

On the Way to Chicago.

The journey of 500 miles from Toronto to Chicago was made on Sunday, July 9, on the Canadian Pacific and Wabash Railroads, and occupied about sixteen hours. Toronto was left at 7.20 a.m., and very soon after their departure the delegates had more evidences of the superiority of the American to the British system of railway travelling, although it has to be borne in mind that at home provision has not to be made for the running of so great distances as occur on the Western Continent. Scarcely had they taken their seats when the conductor announced that breakfast was to be served, and Sunday morning newspapers were offered them for sale, while books, fruit, confectionery, &c., were laid down on seats beside them to induce them to make a purchase. About mid-day, also, they sat down in dining cars to a meal which, as regards service and the variety and quality of the viands, would have done credit to any restaurant. After a pleasant run through a rich fruit-growing and agricultural district of Ontario, the train arrived at Windsor, and here we had another annoying experience with the U.S. customs officials, every bag having to be opened, although the examination was of a mere formal character. Windsor was left at 2 p.m., and we were timed to arrive at the important and flourishing city of Detroit, the terminus of this section of the Canadian Pacific Railway, at 2.30, but many may be surprised to learn that, when we reached Detroit, the railway clocks showed that the time was only 1.30, this being due to the difference between what is known as the Eastern and Central

time, which latter takes effect at this point. At Detroit a stoppage of about 45 minutes was made, and, shortly after resuming the journey, the delegates passed the scene of a somewhat serious collision, two freight trains having been both wrecked through trying conclusions with each other. As they approached Chicago, which was reached about ten o'clock in the evening, they witnessed the great World's Fair in full swing, with the grounds brilliantly illuminated, the shops or stores, as they are called in America, open, the cars running, and nothing to indicate that there was any rest for either man or beast in that great Western city on Sunday. The delegates took up their quarters in the Hotel Thomas No. 1, a large, new building in 60th Street, close to the grand central entrance to the Exhibition.

AT THE WORLD'S FAIR.

AN IMPOSING SHOW.

THE TERRIBLE FIRE.

MINES AND MINING.

COAL-CUTTING MACHINERY.

HOLING LONG WALL WORKINGS.

TRANSPORTATION BUILDINGS.

REMARKABLE LOCOMOTIVES.

IRON AND STEEL.

THE MONSTER STEAM HAMMER.

A BIG STEEL BAND SAW.

THE TINPLATE INDUSTRY.

(From the Dundee Weekly News of August 19.)

Writing from Chicago on July 11 the Conductor says :—The members of the *Dundee Weekly News* Expedition have now had two days' experience of Chicago. It is a huge city, with several splendid parks, handsome boulevards, and huge buildings, and is about 22 miles long by 9 or 10 miles broad, embracing a population now estimated at about 1,600,000, and composed chiefly of Germans, Americans, and Irish. The Columbian Exposition, or World's Fair as it is familiarly named here, is located in Jackson Park, nearly 600 acres in extent, on the shore of Lake Michigan, six or seven miles south of the business portion of the city in which are the celebrated "sky scrapers" or "neck-breakers" of buildings 12, 14, 16, 18, and 20 storeys in height. Connecting the World's Fair grounds with Washington Park, a recreation ground with an area of nearly 400 acres, is the Midway Plaisance, a mile in length, containing representations of various nationalities. The total cost of the Exhibition, including the laying out of the grounds, came to about $30,000,000 or six millions sterling, and Chicagoans freely admit that the receipts so far have been disappointing. This they attribute to the railway companies having declined up to the present to reduce their rates in order to induce outsiders to visit the Fair. The daily working expenses have now, it is stated, been cut down from $28,000 (£5600) to $13,000 (£2600), while the average daily attendance has risen to about 100,000, and all look confidently forward to a large increase of visitors in autumn, when it is expected the railroad companies will reduce their fares. The Exhibition is now also practically complete, the Viking ship being expected to-morrow.

The delegates were eye-witnesses of the great conflagration which yesterday destroyed the cold storage warehouse—a building within the grounds but quite distinct from the Exhibition buildings proper—and which caused the loss of about fifty lives, including twelve firemen and four Columbian guards. The scenes witnessed in the Fair grounds during the conflagration were positively indescribable. The firemen, some of whom had bravely ascended the tower and the roof of the warehouse in their efforts to save comrades and the workmen in the building, acted like heroes, but without avail. The building was a complete shell, and when the flames ascended, and cut off the escape of the men who were on the tower, the scene was sickening. About 100,000 visitors were within the grounds, and while women were screaming and fainting in great numbers all around, almost all the men were also greatly excited, and shouting wildly. Some of the firemen escaped by ropes, although they were fearfully burned, but the fire quickly increased its grasp of the tower, and then a girdle of fierce flame barred the way to the safety of those who remained on the balconies. A few attempted to reach the ground by means of ropes, as others had done before them, but the fire had now burned these through, and then they fell about 80 or 100 feet into a burning oven. Others retained their foothold until their hair and their clothes were burning, when in sheer desperation they leapt into the air and shared the fate of those who had gone before them. A small number stood out to the bitter end, and these went *en masse* with the whole upper part of the tower, when, amidst a piercing scream of horror, it toppled over and fell into the blazing furnace beneath. Such a scene is one which can never be forgotten by those who witnessed it. As instances of American *sang froid* under such circumstances, it may be mentioned that during the exciting and heartrending scenes above depicted some artists were observed coolly sketching the various incidents of the catastrophe, while others were busy with cameras. Everything was in full operation to-day as if no such disaster had just occurred. The heat during the past two days has been intense, and even the natives are complaining of it. Appended are the reports of the delegates on the Expedition.

MINES AND MINING BUILDING.

Mr Robert A. Muir, Hill of Beath, Fifeshire, who made an inspection of this department at the World's Fair, reports :—The Mines and Mining Building is located at the southern extremity of the Western Lagoon or lake. It is 700 feet long and 350 feet wide. Its architecture has its inspiration in early Italian renaissance. There are entrances on each of the four sides, those of the north and south fronts being the most prominent. To the right and left of each entrance inside start broad flights of easy stairs, leading to the galleries. The galleries are 60 feet wide and 25 feet high from the ground floor. The interior space enclosed is 630 feet long, 100 feet high at the centre, and 47 feet high at the sides. This space is spanned by steel cantilever trusses, supported on steel columns. The clear space in the centre is 115 feet. The cantilever system, as applied to roofs, was never used on so large a scale before. The cost of erection was £50,000. Entering this building by the northern