

manufacture of blank books and edition binding, and the exhibit on the whole is disappointing in view of the fact that practically no new principles are seen. The only exceptions in this respect are two paper-ruling machines, one a German, and the other an American invention. Both are self-feeders, and in each the old-fashioned brass pen is discarded for a brass disc. It is apparent that here at least the Yankee, generally well ahead in the matter of ingenuity, has been completely beaten by the phlegmatic but philosophic German, as the Fatherland machine is in several respects superior to the American. It occupies less than half the floor space of its rival; it is stronger, better, and more neatly made, and many of the more important operations are more quickly and more accurately performed. Both machines are also alike in ruling two sides of the paper in one operation, and it is claimed for the German machine that it can turn out

4000 Sheets Per Hour,

with the attendance of only one person. Chicago comes to the front with paper-cutting machines, and New York shows a good embossing and inking press, a clever automatic book-trimmer, and a very rapid-working signature press. Germany and America are well represented by wire-stitching machines, the latter country also having on view a new model of an ingenious machine, which both saws and sews on tape or bands, or without either blank catalogue or edition work. Notable examples of this work are forward from France, Australia, and Canada, and with one exception, where thorough bad taste is manifested, Chicago has also itself a good display. The French exhibit is admittedly first for pure taste and skill. No better collection of printed books has perhaps ever been seen. It is contributed to by America, Mexico, Britain, Germany, France, Italy, Bohemia, Denmark, Norway, and Sweden. The samples of multi-coloured printing on cloth shown by Germany are not only novel and unique, but remarkably striking. Of fine hand-tooled leather binding, the exhibition is magnificent.

Britain's Examples of Art Binding

are solely from the hands of Zaehnsdorf, of London, whose case contains a Tennyson in blue morocco, choicely finished in Derome style, and a beautiful specimen of renaissance work in dark green crushed levant; but the most striking exhibit is the "Art of Bookbinding," in crushed brown levant, illuminated in olive green, with a bold and graceful floral design in gold, and the back panelled with choice foliage. Conspicuous in the German collection is a book belonging to the Emperor William, with his initials and a crown in gold on the side, and bound in brown morocco in the Harleian style. A jewel casket in white morocco, finished and illuminated by Herm Graf & Son, of Altenburg—another very beautiful exhibit—is valued at \$750 (£150). Léon Gruel, of Paris, shows, amongst some other magnificent works, a book bound in brown morocco in the Grolier style, and costing \$1100 (£220). From Rome there are some very fine vellum books, illuminated and finished with great taste and skill, while Bohemia contributes good prayer books in leather and ivory. The books from the Scandinavian countries are striking on account of their beautiful inlaid calf work of Gothic design. The Mexican "show" acts as a foil to the others.

VISIT TO PULLMAN CITY.

THE FAMOUS CAR WORKS.

HISTORY OF THE FIRM.

LIFE IN THE MODEL TOWN.

PUBLIC INSTITUTIONS.

HOW CARS ARE BUILT.

WAGES OF WORKMEN.

THE GREAT CORLISS ENGINE.

A PALACE ON WHEELS.

DESCRIPTION OF CARS.

A CANADIAN PACIFIC TRAIN.

(From the Dundee Weekly News of 9th September.)

Mr Logan, Glasgow, thus describes his impressions:—Among the countless industries and enterprises of the United States there are none which attract more universal attention than the Pullman Car Works and the model city built and owned by them, which forms so delightful a suburb to the city of Chicago. The result of all this



PULLMAN OFFICES, CHICAGO.

gigantic work is due to the inventive genius and power of one man—Mr George Pullman. The idea of constructing a palace car, or one where more comfort could be had in travel than in the very crude cars then in use, was that of Mr Pullman. In the spring of 1859 he left his New York home to seek his fortune in the then "Wild West." Chicago even then promised to become the metropolis of the West, and it was here, with limited capital, he made the first step, which has resulted in such grand achievements by remodelling two passenger coaches into sleeping cars. The public were not prepared for such an innovation, and the

initial attempt met with but partial success. He, by persistent efforts, obtained the permission to use an old abandoned shed, in which he built the first regular Pullman parlour and sleeping car, costing the then extraordinary price of 18,000 dollars, and this was the foundation of the great institution which proudly bears his name to-day. In April, 1865, this same coach was used as the funeral car of

### The Murdered President,

Abraham Lincoln. The principal works of the Company are located on the side of a small lake fourteen miles south of Chicago. Some idea of the magnitude of the Pullman Car Company may be formed when it is learned that they employ in their regular service 2135 cars. They have built and placed in service during the past year 150 sleeping, parlour, dining, special, and tourist cars, costing on an average \$13,519.83 each per car. The total number of persons in the employ of the Company in its manufacturing and operating departments is 12,367, and the wages paid during the past year averaged nearly \$600 per each person employed. The business is not confined to the construction of palace, dining, and sleeping cars. They manufacture cars of every description, such as passenger coaches, freight cars, street cars, and motors, and in this last branch of industry alone employ over 400 men. The Company also have large works at Wilmington, Del., and in their plant include the Union Foundry, Union Car Wheel Works, the Pullman Iron and Steel Works, also a brass work, which employs 250 men, and which turns out over one half million dollars worth of manufactured brass annually. The capacity of the works at Pullman is three sleeping or palace cars, ten ordinary passenger, and 240 freight cars per week.

### Mr George Pullman

was born in the town of Brocton, Chautauque County, New York, March 3, 1831, and has but passed his threescore years, and in them has confined work fit for an army of workers. He was the third oldest in a family of ten, and at fourteen accepted a humble position in a store of his native village. Three years of this work and he joined his older brother in the cabinetmaking busi-



MR GEORGE M. PULLMAN.

ness. Force of circumstances compelled him at this time to sell his cabinet shop. He then accepted a contract on the Erie Canal to remove from its route a large number of houses. Having accomplished this, and made some money at it, he started for the West with \$6000 in his pockets, when he reached the wind-swept prairies about Chicago. From this time his history has been that of the city of his adoption, energy, industry and prosperity.

### The "Weekly News" Delegates

were shown through this great establishment by Mr D. Doty, of Pullman, who explained everything of interest to the members of our party. It is almost superfluous to state that the works at Pullman are provided with an abundance of the best machinery for working iron and wood. In all there are about 900 machines. Of that number, 79 are wood-working machines, including 12 carving machines, and throughout the whole buildings the subdividing of labour is very apparent. Ten hours constitute a day's work, Saturdays included, and, as far as possible, piece wages are paid. The following is the average weekly wages in some of the departments:—Car body makers, 1s 4d per hour; cabinet and chairmakers, 1s 7d; upholsterers, 1s 6d; painters and decorators, 1s 8d; carvers, 1s 8d; carpet sewers (female), 6d. Some men in the above trades make as much as 2s 3d per hour, while others can only earn 9d or 10d. The sanitary and ventilation arrangements throughout the whole of the Pullman buildings are as near perfection as can be. All the works and shops are kept in the nearest possible order. The machines are all fitted with blowers and exhaust-fans for taking away all shavings and dust as fast as they accumulate.

### Passenger Car Building.

An outline of the manner in which passenger cars are built, says Mr Logan, cannot but be of interest, as this class of car construction constitutes the most important work done at Pullman. There are 85,000 passenger cars in use on the 175,000 miles of railroad in the United States, and these cars have cost over \$200,000,000 (£40,000,000). An ordinary day coach costs from £1000 to £2000. When an order is received for a given number of cars it is accompanied by carefully-prepared drawings of every detail, and by specifications which even enumerate the quantity and quality of screws, nails, bolts, castings, trimmings, &c., which are to be used. Those unfamiliar with this class of work would be astonished at the elaborate nature of the drawings, with all dimensions marked on them, so that no mistakes may occur. The specifications aim to contain a clear statement of all the materials to be used, their quantity, quality, and sizes; and the manner in which they are to be treated and built is also carefully described; even the paint and varnishes are specified, as well as the number of coats on each, and the length of time each coat is to be given to dry. Thus it will be seen that a car is first

### Carefully Thought Out

in the mind of the designer, and all details put upon paper. When an order for cars is placed, bills of the materials required are made in each department, and patterns for the iron and woodwork are made to guide the foremen in laying out their portions of the work. As speedily as possible departments are furnished with the raw or finished materials called for on their bills of materials with which to make their portions of the car. As an illustration, the wood-machine shop gets out the exact number of pieces of wood of every kind and form called for, and the blacksmith shop gets out the forgings required. The bolt department makes the exact number of bolts of the various kinds needed, and the brass foundry fills its order for the necessary trimmings, which trimmings, when specified, are taken in hand by the electro-plating department, and plated nickel, silver, or gold.

### The Glass Department

cuts the glass, etches it, and silvers it when required, and makes and furnishes all the mirrors. When everything is ready the prepared materials are delivered as needed at the compartments where

the cars are to be erected. First the bottom, such as sills, floor joists, flooring, and transoms arrive, and are taken in hand by the bottom builders. At the completion of the bottom of the car it is turned over to the body-builders, who put up the framework and complete the body of the car, their work consisting of applying posts, bracing, filling, belt-railing, panelling, car-lining, &c. The car is now taken by the roofers, who apply the roof boards, mouldings, &c., and then the tanners put on the metal covering. After inspection the car is taken in hand by the outside painters, and is entered at the same time by inside finishers, who put in and finish the inside woodwork, such as mahogany, vermillion, oak, cherry, ash, basswood, beech, cedar, birch, cypress, hickory, maple, sycamore, poplar, &c. The piping for heating and lighting is set in before the seats are placed in position. The cars can either be lighted by oil, gas, or electricity. When the inside work is all fitted up—and some of it is beautifully carved and decorated—the inside painters go over the entire interior, and make the car ready for the trimmers, who place the bronze or plated trimmings upon doors, sashblinds, and walls. The upholstering, draperies, seat coverings, carpets, &c., which have all been previously prepared, are now put in, and when the finishing touches are added the car is ready for delivery to its purchaser. All work in the construction of these cars is sub-divided, and they are turned out with surprising quickness; the capacity of the works is twelve new passenger cars a week.

**Freight Car Shops.**

All kinds of cars are built at Pullman—parlour cars, passenger, mail and baggage, freight, and street cars. The building where the freight cars are built is 1350 feet long and 200 feet wide, and has a capacity for turning out fifty cars a day, or a finished car for every twelve minutes of working time. The raw material goes in at one end of these shops, and comes out at the other end in the form of completed cars. These cars are about 30 feet long, and are covered in like the guards' vans that are attached to the passenger trains in Scotland. To build forty of these cars in a day requires the labour of 500 men and the work of a large amount of machinery. The mill has 130 men, the erecting shop 270, and the paint shops 100. Ten hours constitute a day's work, Saturday included. Three-fourths of the operatives are paid by piece, and earn from £2 8s to £4 16s per week. Wages are paid once a fortnight. Like all other large works in America, the workers at Pullman are principally composed of foreigners. The following table shows the countries where they were born.

America, .. ..	1796	France, .. ..	26
Sweden, .. ..	1163	Bohemia, .. ..	26
Holland, .. ..	753	Belgium, .. ..	16
Germany, .. ..	732	Asia, .. ..	14
Ireland, .. ..	402	Russia, .. ..	12
England, .. ..	365	Hungary, .. ..	11
Canada, .. ..	264	Africa, .. ..	3
Norway, .. ..	169	Australia, .. ..	2
Scotland, .. ..	131	Mexico, .. ..	2
Poland, .. ..	116	East Indies, .. ..	2
Italy, .. ..	99	Finland, .. ..	1
Denmark, .. ..	89	Greece, .. ..	1
Austria, .. ..	66	Spain, .. ..	1
Wales, .. ..	34		
Switzerland, .. ..	28	Total, .. ..	6324

800 of those enumerated are women and girls.

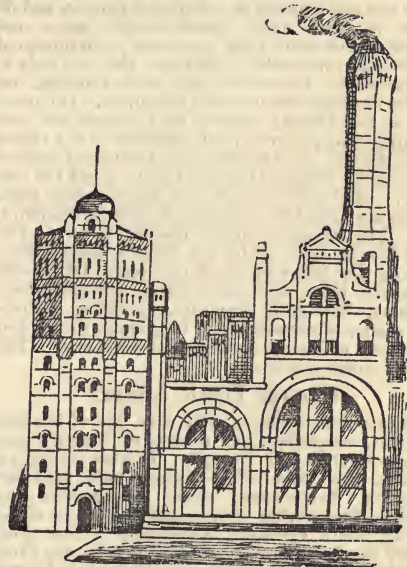
**Motive Power.**

Mr Watson, Dundee, who devoted notice to the driving power, says the steam engines working through the Pullman shops are as follows:—The large Corliss engine, rated at 2500 horse-power; Buckeye No. 1, 700 horse-power; Buckeye No. 2, 350 horse-power; street car shop engine, 300 horse-

power. The largest engine at the freight car shop is 900 horse-power. There is a vertical Corliss engine in the new repair shop 150 horse-power; upholstering department, 60 horse-power; paint shops, 30 horse-power; five at dry kilns, 115 horse-power; hammer shops, 50 horse-power; sawmill, 65 horse-power; iron department, 50 horse-power; carving, 20 horse-power. The new engines at the new power house are one of 150 and two at 270 horse-power each—a total of 5980 horse-power—besides the brick yards engine of 400 horse-power. The iron and steel works, or rolling mills, have engines capable of developing 2000 horse-power. There are transfer engines at 156 horse-power. The foundry and car wheel works have engines of 426 horse-power; also some other small ones. The total horse-power of all the steam engines at present is 9500.

**The Great Corliss Engine.**

This remarkable mechanism is a simple condensing engine with the Corliss valve gear and cut-off adapted to a vertical engine. It was built in Providence, R.I., by the late Mr George H. Corliss. It was finished in 1876, and required seven months in building, and furnished power for running the machinery at the Centennial Exposition in Philadelphia in 1876. At the close of the Exposition it was taken back to Providence, and was purchased by Mr Geo. M. Pullman in 1880. It required a train of 35 cars to bring it to Pullman. It was set up in



CORLISS ENGINEHOUSE AND WATER TOWER.

its present place during the autumn of 1880 and the winter of 1880 and 1881, and was started for the first time on April 5, 1881, in presence of a great many visitors. Miss Florence Pullman opened the steam valves and started the engine in the midst of great rejoicing, thus starting the Pullman Car Works. The engine has run successfully since that date. The total weight of the engine is 700 tons.

**The Engine-Room.**

The engine-room is 84 feet square and 68 feet high. The platform upon which the engine stands is 26 inches above the floor of the room, and no visitors are allowed upon it. The frame is shaped

like the capital letter A, and is very strongly braced. The height from the floor to the top of the walking beam is 40 feet. The ladders leading to the upper portion of it constitute strong braces, and are also very ornamental. The cylinders are 40 inches in diameter, affording a 10-foot stroke. The steam pipes are 18 inches in diameter. The cylinders are jacketed with live steam. The ordinary pressure is 32 lbs., and the piston rods are 6½ inches in diameter. The walking beams are of the web pattern, 25 feet in length and 9 in width at the centre, and weigh 11 tons each. The length of the connecting rods are 25 feet 10 inches in the centre and tapering to 6 inches diameter at the ends. The cranks weigh 5 tons each. Diameter of crank shaft, 19 inches; length, 12 feet. The bearings of the crank shaft are 18 inches in diameter and 24 inches long. The diameter of the fly-wheel is 29 feet. It is built in twelve segments, and weighs 56 tons. Steam is supplied to the engine by two steel boilers. They are horizontal, tubular in construction, 18 feet in length, and 6 feet in diameter.

### THE TOWN OF PULLMAN.

Mr Bennett, engineer, Newcastle, reports:— Pullman is emphatically a new departure in city building. It has not only bettered labour, but added to it a dignity which it did not before possess. The improved homes and the healthful and convenient shops of Pullman were created in advance of any expressed demand by the workmen for them. Men can and do exist in cellars and garrets, and do work in sheds and uncomfortable shops and factories, but when they are given such improved homes and surroundings they are able not only to do better for themselves and their families, but better in every way for their employers. On arriving at the railway station of Pullman the first building that presents itself to notice of the visitor is the Arcade. This building is the principal marketplace of the town. It is 250 feet long and 154 feet wide. The central portion is three storeys high. There are 1,800,000 cubic feet of space in the building. The structure covers nearly an acre. The first floor is occupied by the bank and post office, and by the following kinds of shops:—Dry goods, groceries, boots and shoes, china and glassware, clothing, household furniture, hardware, tobacco and cigars, a newsagent, a restaurant, drugs and medicine, and clock, watch, and jewellery. The second storey contains a

### A Large Public Library

with over 8000 volumes, and over 100 of the best journals, magazines, and reviews of America and various countries of Europe. It also contains a theatre, the town offices, three halls used for churches, lodgerooms, office for doctors and dentists, two barber shops, and the rooms of the Young Men's Christian Association. The third storey has handsome lodgerooms used by the Freemasons, Oddfellows, Ancient Order of United Workmen, and other friendly societies. Pullman has its athletic association, which consists of about 150 members, has handsome grounds, and every modern convenience for athletic and aquatic sports. The playgrounds contain about ten acres, and the island five acres. Athletes from all parts of America are said to have competed here for the beautiful medals awarded. The cricket team at Pullman boasts to be the best one west of Hudson River, and holds the championship of the West. They have also a baseball team, which they claim to be one of the best out of the professional nines. Pullman has become the centre of athletic sports in the West. Annual regattas are held in the spring and autumn, and athletic games are given which

attract the best amateur athletes of the land. Every facility is afforded at Pullman for rational amusements and recreation.

### The Savings Bank

is largely taken advantage of by the workmen, the amount deposited in the bank by 2249 depositors from August, 1892, up to April 10, 1893, was 636,889 dollars, which is equal to 283 dollars for each depositor. In cases where accidents of a serious nature occur, such as broken limbs or any other accident whereby a man is laid off work, the company pay him his wages. With the exception of seventy dwellinghouses these structures at Pullman are all of brick. The houses are provided with all modern improvements such as gas and water, and ten per cent. of them with baths. Nearly all the houses are faced with red pressed brick, and they are all on broad, well paved streets and shaded with trees. The last census of Pullman, taken in August, 1892, shows that there were then 11,702 men, women, and children. The entire number of tenements is 1831, some families using more than one tenement for the accommodation of lodgers, there being on an average 2500 bachelors at the works. Half of the people are American born, Swedes come next, and Germans third. At the time of taking the United States census in 1880 the town of Pullman was only a matter generally talked about, for workmen had only begun preparations for building, and no one resided there. Workmen's trams and cars run morning and evening from Chicago. The place today presents a busy scene of industry, employing over 6000 persons in its shops and factories, and no less than 849 of these wage-earners own their houses.

### The Churches in Pullman.

An inquiry in reference to the church preferences of families in Pullman shows that 75 families lean towards the Baptist Church, 250 incline in the direction of the Presbyterian, 125 the Methodist Episcopal Church, the Swedish Methodists claim 125, the Elim Swedish Lutherans 100 families, and they have a fine church of their own; the Swedish Baptists 50 families, the Holy Rosary Church 375 families. This congregation has one of the finest brick churches in the country. The German Lutheran claim 75 families, and the German Reformed Church 100 families, the Swedish Mission



PRESBYTERIAN CHURCH.

Church 125 families, and the German Catholics 50 families. Ten of these denominations are provided with ministers and churches. The Greenstone Church, which is leased by the Presbyterians, is the finest structure in the town of Pullman. It is built of stone of the Serpentine Rock. This rock is crystalline, occurring in masses which commonly present dark green colours. Some authorities have classed it as a marble, from the fact that it is often sculptured. Its fancied resemblance from its mottled appearance to the skin of some serpent gave the rock its popular name.

### Drainage System.

The storm or atmospheric water goes from roofs and streets through one system of pipes and large drains directly into Lake Calumet. This water, of course, contains no sewage. Brick mains are built in alternate streets, running east and west, the intermediate streets being summits from which the surface water flows into the main drains or sewers. The fall is sufficient to secure good cellars or basements for all the dwellings of the town, the drain pipes being at least 18 inches below the cellar bottoms. A two-foot cobble-stone gutter borders either side of every street, leading, at short interval of about 160 feet, into catch basins, these basins connecting either with laterals or main drains. 28 miles of drains and drainage piping have been laid in Pullman. No sewage goes into these drains as they are intended to carry nothing but rain water. These laterals and house drains are of vitrified piping, and serve for draining over 1800 houses.

### Disposal of Sewerage.

An entirely separate system of pipes from the drainage piping is here used. These sewers are laid deep enough to pass under all the surface drains, and sewage in them from houses and shops goes by gravity to a cistern or a reservoir under the water tower at the works, entering the cistern 16 feet below the surface of the ground. The capacity of this reservoir is 300,000 gallons. The sewage is pumped from here as fast as it is received through 20-inch iron pipes to a sewage farm three miles distant. At the farm end of this pipe the sewage goes into a receiving tank made of boiler plates, which is set a few feet above the surface of the ground. Through the centre of this tank there is a screen in an oblique position, through the meshes of which substances more than half an inch in diameter cannot pass and get into the piping in the farm. The sewage water passes through this screen, and thence into the distributing pipes, a pressure of not more than ten pounds being allowed upon these pipes. The sewage is sent from the reservoir so rapidly that there is not sufficient time for any fermentation to take place, and there is not the least perceptible odour from it at the pumping station.

### A Palace on Wheels.

Mr Logan, Glasgow, reports:—While visiting the Pullman works, the car of most note that the delegates were shown through was one owned and used by Madame Patti whilst travelling through the United States. There was nothing very striking about it, only that it contained a piano and a neat little inlaid cabinet. Mr Doty, the gentleman who showed us round, explained that the finest and most elaborate cars that the Pullman Company ever built are shown at the Exhibition, at the same time advising us strongly to see them before leaving Chicago. On visiting the Exhibition next day, I went straight to the Transportation Building, when I had the pleasure of seeing through

this most magnificent train. This train, I was told, was expressly built for the Exhibition quite regardless of cost. It consists of a ten-wheeled engine of a very striking appearance. Next the engine is a United States mail car, which is vested to the tender. This car is 69 feet 6 inches in length, and is fitted up with the most approved mail fixtures. The postal authorities who have visited the car say it is the best equipped postal car in the world. The next is a first-class day coach 68 feet 11 inches in length. The car is finished in vermilion wood that looks like dark mahogany, with a grain resembling rosewood. The car has 28 Hale and Kilburn double seats, which are notable for the easy way they can be turned and the comfortable seat they afford to the traveller. The upholstery of these seats is unusually rich, being an embroidered haircloth, with a gold-like hue. Each section of seats is divided by an arched crown, which seems to give the car the appearance of a series of arches that are beautifully carved and richly decorated with floral work.



CORNER OF PULLMAN STATE ROOM.

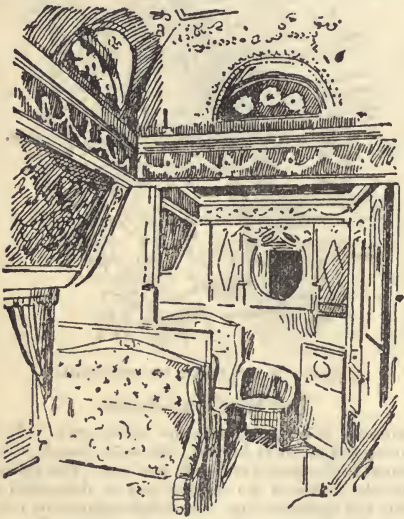
### The Smoking-Room

in this car is a very handsome apartment. It is upholstered in olive leather, the wall panels being finished in decorated stamped leather. The ceiling is in the shape of an ellipse, and is decorated to match the upholstery. The windows opening from smoking-room into the passage are draped with heavy silk plush curtains of a very artistic design. Passing from the body of the car through the smoking-room passage, the gentlemen's toilet-room and lavatory is reached. They are also fitted up in the same sumptuous manner. The wash-hand basins and water-coolers are of a pretty design, the metal work being all highly electro-plated. The ladies' rooms at the other end of the car are similarly fitted up. Passing through the vestibule from the day coach, the parlour car Santa Maria is reached. I may here state that every Pullman car that has been built is named by the Misses Pullman. The parlour of this car is finished in vermilion wood, and is designed in the sixteenth century style, with curtain rods and ornamental metal work all gold-plated. The ceilings are handsomely carved, with the ground-work coloured a natural green. The windows are built in bay form, the upper parts

being glazed with the most delicate patterns in stained glass. The upholstering of the revolving seats and sofas is of Persian blue and gold. The design of the chairs is very graceful and delicate, while the carpets are of the finest Winton. Passing through the passage towards the gentlemen's end of the car is a library well stocked with expensively bound books. Next to the library, at the end of the car is the gentlemen's lavatory and toilet room. The floor and wainscoting of this room are constructed of handsome tiling. The wash-basin is of Mexican onyx, and is beautifully shaped. All the plumbing fixtures, &c., are of plated gold. At the other end of the car is a drawing-room

### Finished in Ivory and Gold

of exquisite design and workmanship. The ceiling is coloured in pink, and is beautifully carved and decorated in gold. The upholstering of this room is of silk plush, coloured to harmonise with the walls and ceiling. The room also contains a comfortable sofa and two easy chairs upholstered in delicate silk plush. The window curtains are of Pompeian pink silk, richly flowered in silver, white, and gold. At the end of this room is fitted a circular bevelled mirror, and the carving of the frame is simply a work of art, and by far the finest piece of decorative carving seen in the American section of the Exhibition. The entire train is lighted by electricity. The electroliers are all gold plated, and are of excellent design and finish.



CORNER OF PULLMAN SLEEPER.

I paid special attention to the workmanship of these cars, and I must say that the cabinet work, upholstering, and decoration could scarcely be surpassed. Everything that wealth, taste, and ingenuity could think on appears to have been used in the manufacturing of the handsome cars. The above description conveys but a poor idea of what these cars are really like, even with the aid of photographs, as they would fail to give the brilliant colours which have so much to do with successful interior decoration. The designing of the interior decoration of this wonderful train, it may be of interest to mention, was done by Mr Frank Jobson, a school companion of Messrs D. C. & F. Thomson of this paper, and now a rising young architect in Chicago. Pullman also exhibits a number of electric street cars, and a model of

the town of Pullman, showing all the buildings and dwellings.

### A Canadian Pacific Train.

The Canadian Pacific Railway Company also exhibit a train similar to the Pullman, only not quite so elaborate. All the cars are vestibuled, and lighted by electricity. The finish and decoration of the diner is superb. White mahogany, with bronze tablets for ornamentation, with linen, silverware, crystal, and china on the spread tables, create a pleasant effect of light and cleanliness. Thirty persons can be seated at the tables. The sleeping-car is a model of comfort, of the type familiar to all travellers, but brought up to date by modern improvements. The finish of the first-class day coach is in quarter-sawed oak, the seats having backs arranged rather for comfort than economy of space. This car is divided into three sections by two arches, which create an impression of spaciousness foreign to cars of the usual pattern. There are two smoking compartments, one at either end of the car, and the usual toilet conveniences. In the colonists' car, which is called in this country an emigrants' sleeper, many improvements are found. The seats are comfortable, and the beds furnished with good bedding. In finish and decoration the car is superior to many first-class day coaches. All the cars are finished without and within with oil and varnish, no paint being used in any form. This is a specimen train, being a duplicate of those now in service on the road. Each of the cars are 14 feet 10 inches high by 10 feet 3½ inches wide. The sleeper is 78 feet long and weighs 98,000 pounds. Steam from the boiler heats the train, and the customary bell-cord is replaced with a pneumatic device. Electricity is provided from storage batteries charged before the train starts.

### THE PROSPECTS OF WORKING MEN IN AMERICA.

AN INTERESTING NARRATIVE.

FREE TRADE AND PROTECTION.

WAGES OF SHOEMAKERS.

COST OF FOOD AND CLOTHING.

RENTS AND TAXES.

REMOVING BUILDINGS.

WOMEN'S TEMPERANCE UNION.

CHICAGO'S LIQUOR LAWS.

THE KEELEY CURE FOR INTemperance.

SCHOOL SYSTEM OF CHICAGO.

(From the Dundee Weekly News of September 16.)

The question—Do working men rise to better positions in America than at home? was answered in a very emphatic manner by Mr James Sinclair Thomas, the proprietor of the hotel in Chicago in which the delegates resided when prosecuting their inquiries in that city. Mr Thomas, who said he had a Scotchwoman for his mother, left Cong. County Mayo, Ireland, in 1854, when hardly sixteen years of age. After a six-weeks' passage in a



FORT DEARBORN IN 1830.

sailing vessel, he reached New York, and on the first day of his arrival there, when walking along the street in company with a friend, he found a parcel containing \$57 (£11 8s) in paper money—a very encouraging omen to him, he thought. The “find” was advertised, but the money was unclaimed, and he divided it along with his friend. Although so young, he was considered a first-class carpenter, and being also a good draughtsman, he obtained work immediately on his arrival, although the wages then were only \$1½ (5s) a day. In the following March he went west to Chicago, a place of 45,000 inhabitants at that time. He secured employment with a man named Jonathan Clark, whose foreman started business on his own account. Shortly afterwards Mr Thomas was placed in charge of the shop, with fully fifty carpenters under him. Working about three years with Mr Clark, he saved some \$1100 (£220), sent for his parents and brothers and sisters, and in 1857 he started business as a stair-builder, at which he was looked upon as an expert. Then came the great panic, and his money went in the “burst.” Leaving Chicago, he travelled to St Louis, Missouri, and in two years he made \$4000 (£800) at his own business. The Civil War breaking out, he organised a company of Irishmen, 100 strong, fought on the Confederate side for sometime, and in one day was in three heavy skirmishes, and was twice wounded. His colonel being killed, he had for some time the command of the regiment. Returning home, he took \$200 (£40), and started for California in December, 1861. There he opened a school for the teaching of stair-building, and made \$1500 (£300) in three weeks. While in California he hit upon a new plan of setting up rails for all kinds of stairs, and published a book on the subject, for the copyright of which he received \$16,000 (£3200) in gold. In 1864 he returned to St Louis, started speculative building on a considerable scale, and also ran a planing mill, and a lumber yard, and made a quarter of a million of dollars (£25,000). Every year at that time he built twenty or thirty first-class houses—very few cheap ones he ever built—and sold them from \$20,000 (£4000) to \$30,000 (£6000) a piece. He was not, however, often paid in cash for the property, and the result was that when the panic of 1873 came he lost nearly everything he had. From 1875 to 1880 he was in Texas—a State in which jails were very much required—and during that time he built no fewer than 22 of these useful establishments. Not liking the State, he came back to St Louis, and recommenced building on his own account, accumulating property of the value of \$130,000 (£26,000) in four years. After this he returned to his first love—Chicago—and has done well up till now. The Hotel Thomas occupies a site opposite the main entrance to the Exhibition, with 100 feet of frontage and a depth of 150 feet, and cost \$33,000 (£6600). Working

men, he said, could do well in America if they kept away from the saloon, and people should come out when they were young, as they “caught on” more readily to the customs of the country than older persons. The education system was the best in the world, and was free to all. His own daughter could earn \$60 or \$70 a month at teaching if anything came over him, and the same prospect was open to the daughter of every working man. There was always employment for steady men, and no man required to take off his cap to any one. They lived on the very best food that was to be had—meat was cheap—and mechanics and labourers, provided they kept from drink, had carpets on their floors, and many of them had pianos. Scotchmen generally did well, but Irishmen were not behind, and many of them had risen to the highest professional and social positions. As a striking instance, he mentioned the Brothers Cudahy, who, starting as butchers with a couple of dollars a day twenty years ago, now lived in palaces, and had horses, carriages, yachts, and all the other luxuries of millionaires. In concluding on this subject, Mr Thomas said—“If I had stayed in the old country I would now have been looking forward to being a burden on my family, or spending my last days in the poorhouse, but, thank God! there is nothing of that here.”

### Free Trade v. Protection.

On the subject of protection, Mr Thomas holds very pronounced views. The victory of the Democrats, he said, had paralysed trade in Chicago for the time being. A country's prosperity depended upon its manufactures, and the manufacturers of America did not know but that they might be blotted out with foreign good should the tariff be reduced or abolished. “If we are to have free trade in this country it will,” he said, “ruin us. England is a great country because of its manufactures, but it is being gradually ruined to-day by importing free from Germany and other countries what it can itself produce. Take this for an illustration. In our country convict labour is let out to contractors, who pay the State 40 to 45 and 50 cents a day for the work of each convict. These convicts are employed in making hats, clothes, &c., which compete with and keep down the price of free labour. At present this is done only on a comparatively small scale, and it is not generally seen, but let us have Free Trade for two years and the fellows who are now crying for Free Trade would soon have their wages reduced to European level, and would be searching for all the ropes they could find in order to hang the Congress men. Chicago has been for some years the natural home of the builder, but there is no house-building going on in Chicago at the present time. On an average I employ from forty to fifty carpenters, but at present I have only four, and in a fortnight I shall stop altogether. I anticipate, however, that there will be a clean sweep round, and that the Democrats will be at the bottom of the bag at next poll.” It is a singular fact that the delegates heard views similar to those held by Mr Thomas expressed by scores of skilled tradesmen in America.

### Hard-Headed Scotsmen,

who in the land of their birth would have been red-hot Radicals, were as emphatic as Mr Thomas in their condemnation of Free Trade as the policy for the American Government to follow. They were met with everywhere—in the workshop, on the street, and in the cars—and according to them all, without exception, Free Trade would be the ruin of America. Several hot arguments took place on the subject, and the Conductor in particular was not slow in showing how unjust and one-sided their tariff laws were. He pointed out that really only

certain industries were protected against foreign competition, and asked the Americans if they were prepared, for instance, to give bounties to the farmers who had to sell their produce at Free Trade prices, and practically pay a sum equivalent to the tariff on everything they bought. He also pointed out that America was a great country with enormous natural resources, that the Americans were not slow in boasting of their ingenious labour-saving machines, and of the greater amount of work they could turn out in a given time than the Britisher, and remarked that if the Americans with all these advantages on their side—not to speak of the matter of ocean freight which had to be paid on imported goods—could not hold their own against British working men employed in industries crippled by royalties and subject to other impositions peculiar to a country with all the burdens of a monarchical form of government, they were a very sorry lot indeed. The contention hit them hard, but they would not be convinced. They stubbornly asserted that, with Protection, the mechanics of America had pie three times a day, that no European mechanic fared so well, that if America adopted Free Trade they would have no pie three times a day, and some of them fiercely declared that rather than want their pie they would have another civil war. The Southern and other States where unskilled labourers are in the majority are strongly Democratic, and, judging from the feeling displayed on the subject, it would not be surprising if serious disturbances occurred before the question of tariff reform is settled by the Government. The delegates found America in a deplorable financial condition—works of all descriptions being closed, tens of thousands of skilled artisans unemployed, nearly two hundred banks with closed doors, railways in the hands of receivers, and trade completely paralysed—this to a large extent being due, of course, to the policy which has hitherto been followed by the Government, as it could not be attributed to Free Trade, seeing that has not yet been tried.

### House Rents and Taxes in Chicago.

The rents of the houses of working men in Chicago, who live almost wholly in flats, vary according to the locality, and also according to their size. In the north they range from \$9 (£1 16s) to \$14 (£2 16s) a month; on the west side, five to seven rooms, \$20 (£4) to \$30 (£6) per month; and on the south side, where ground is still dearer, from \$30 (£6) to \$40 (£8), including taxes in every case. Property in Illinois is taxed in a peculiar way on the capital value. For instance, a gentleman interviewed on the subject stated that he was the owner of a farm in Illinois. Its capital value was \$30,000, but the assessment was imposed on only \$6671, and while the total tax in 1879 was \$138.92 (£27 16s 4d), it amounted in 1892 to only \$92.8 (£18 8s 4d). In the city a property in Wabash Avenue of the current value of \$100,000 was assessed for \$7688, and the taxes on it came to \$533 51. The following is given as a sample of the assessment on a house assessed at \$100 as equalised by the State Board:—State tax, 31 cents; county tax, 77 8-10 cents; city tax, 4.77 2-10 cents; town tax, 13 5-10 cents; boulevard and park tax, 5 cents; park tax, 35 cents; bonded indebtedness west parks, 5 cents; sanitary district tax, 50 cents; public library tax, 21 1-10 cents; new sinking fund, 15 cents—total, \$7 30 6-10c. (£1 9s 3d). The water tax, which is also paid by the landlord, is levied separately and fluctuates. If it should not be paid by a certain date no notice is given, and the first intimation that the landlord has on the subject is a published announcement that the property has been sold to pay rates.

### Prices of Food and Clothing in Chicago.

The delegates were also successful in obtaining reliable information as to the cost of food and clothing. The rates given were as follows:—Flour for bread, \$1.50 (18s) per 196 lb. barrel; potatoes (new), 30 cents (1s 3d) per peck of about 14 lbs.; sugar (granulated), 6 cents (3d) per lb.; butter (best), in summer, 25 cents (1s) per lb., in winter, 35 cents (1s 5d); prime roast beef, 11 cents (5½d); mutton, 12½ cents (6½d); pork, 12 cents (6d); best steak, 15 cents (7½d); tea, 25 cents (1s) to \$2 (8s) per lb.—average, 75 cents (3s); milk, 6 cents (3d) per quart; American cheese, 14 cents (7d) per lb. Ice forms a considerable item of consumption in summer—everything in Chicago at that season being iced—and the daily supply of this necessary to an average family of a working man costs 5 cents (2½d). Working men's clothes range in price from \$15 (£3) to \$25 (£5), the highest price being paid for imported woollen goods. Shoes range from \$2 (8s) to \$5 (£1). Cotton goods are usually cheap. In answer to a question whether the standard of living in America was higher than in Great Britain, the informant said that if a man earned \$4 (16s) a day he usually lived up to it, and if he earned only \$1 (4s) he had just to live down to it.

### THE WAGES OF BOOT AND SHOE MAKERS.

The specially revolutionising character of new machinery in the boot and shoe industry has been already referred to. According to Mr Carroll D. Wright, the U.S. Labour Commissioner, the facts collected by the agents of the Bureau at Washington in 1885 showed that one man could do the work which twenty years before required ten, whilst a Philadelphia firm testified that the introduction of new machinery within the preceding thirty years had displaced six times the amount of hand labour required, and had reduced the cost of the product by one-half. Numerous prolonged strikes have occurred through the introduction of new machinery, and in connection with these the contentions generally have been—on behalf of the employers, that though prices had been reduced the improved machinery caused wages to be higher than they had ever been; and on behalf of the men, that the effect of machinery is to displace skilled labour, and consequently to lower the rate of wages. Much friction still exists on the subject. Boot and shoe operatives, and more especially men in their own homes, work long hours. Wages have been greatly reduced, although Labour organisations have succeeded to some extent in maintaining the rates of payment. The system of piece work prevails, and the daily average wage for skilled hands is said to run from \$1.50 (6s) to \$3 (12s), according to the skill and speed of the individual operative. The highest wage paid to non-Unionists is said to be about \$12 (£2 10s) per week.

### Railwaymen in Chicago.

Mr Watson, engineer-driver, Dundee, writes:—I made a visit to one of the principal railway depots in Chicago—the Grand Central, situated at the corner of Harrison Street and Fifth Avenue. This is a very large station, and has splendid accommodation for passengers. At this station there is a signalman's tower. I went and had a look into it, and found it was wrought by the Pneumatic Interlocking Westinghouse Patent, erected in 1890, fitted up by the Union Switch and Signal Company, Pittsburgh, Pa. In this tower there are fitted 24 signals, 26 switches, being 44 in all. It is not like the cabins in our country. In the first place, there is not a lever to be seen. It is wrought with compressed air, regulated by electricity. The air is





GRAND CENTRAL DEPOT.

compressed by an engine in the station, and travels in pipes to all the connections. To shift points a small valve is shifted, which is so easy that one can shift it with his fingers. This admits the compressed air which shifts the points. The signalmen here work a day of eight hours, and are paid at the rate of \$60 (£12) a month, while signalmen at small roadside junctions are paid from \$60 to \$75 (£12 to £15) a month. Shunters are paid at the rate of 25 cents to 27 cents (1s to 1s 1d) an hour, and work a ten hours day. Porters are paid from \$30 to \$50 (£6 to £10) a month. I had a talk with all classes of men. One driver of the Baltimore and Ohio informed me that drivers are paid at the rate of from 3 cents to 4 cents (1½d to 2d) per mile, and firemen from 2 to 2½ cents (1d to 1½d) per mile. Surfaced men, he said, were the worst paid in the service. They averaged \$1.10 (4s 6d) per day of ten hours. Freight conductors, or, as we call them, goods guards are paid from \$70 to \$75 (£14 to £15) per month. Passenger conductors are paid as high as \$100 (£20) per month. A working man pays from \$12 to \$15 (4s to 6s) a month for a house of four rooms. Street tramcar drivers and conductors work 10 and 12 hours a day, and are paid at the rate of 21 cents (10½d) per hour. Cable grip-car drivers and conductors get 23 cents (11½d) per hour, run on Sunday, and are paid common time for Sunday duty.

**EDUCATIONAL SYSTEM OF CHICAGO.**

Mr Muir, Hill of Beath, reports:—The first school taught in Chicago was opened in the fall of 1816 by a discharged soldier in a room in a log house located near the Fort Dearborn, and since



CHICAGO IN 1833.

that time the schools have increased as the city has grown, until in 1840 there were 4479 of a population, 317 pupils enrolled, 4 teachers, costing \$2000 total expenditure; in 1892 with 1,438,010 of a population there were 157,743 pupils, 3300 teachers, costing \$4,562,840 total expenditure. To give

the reader some idea of the increase of pupils in one year, it has been found necessary to build about 12 large schools each year to supply accommodation for the increasing population. Between four and five hundred new teachers are required annually, and at least one-third must be experienced. Education is free, and children must attend the school at the rate of 16 weeks per year until they reach the age of 14 years. This is not very strictly enforced, but no child is allowed to be employed at any work until over fourteen years of age. There is no corporal punishment in the schools here, so that if a child gets refractory the parent is sent for and informed of its conduct, and a promise obtained of better conduct for the future; but if he should continue refractory, he is suspended for a time, but must be reinstated again, and if he commit a crime he is sent to the reformatory and educated there for one year, when the parent can remove him again. If an orphan he is kept until he reach the age of 21 years, but the superintendent may arrange to send some of these boys as messengers for the telegraph or printing establishments, and their earnings at this work go to keep up the establishment. The educational system is nearly the same as our own except that

**The Kindergarten Method**

of teaching the young is adopted generally throughout. This consists of arranging about a dozen children of from four to six years of age around a table at which a female teacher sits. They are provided with pieces of coloured cut paper which they arrange into geometrical figures, and which are pasted on to leaves of a book, and some of those I saw were very pretty. Others are provided with pieces of wood made into blocks of different sizes and shapes, of which they construct small models of houses, &c.; in fact, nearly anything is calculated to instruct and amuse them until they reach the age of six, when they enter another grade. Then for those who may have left the school, and want to prepare themselves for the work of business life, there are the

**Business Colleges,**

at which, besides the usual courses of education, there is a course of special instruction given in book-keeping, commercial arithmetic, commercial law, writing, rapid computations, correspondence, wholesale, banking, real estate, insurance, shipping, shorthand, typewriting, spelling, grammar, and office work, and at one of these colleges in Randolph at which I called I saw great numbers of young men and women going through the above course of instruction. There is no special tax for education, but it goes in with the other taxes, which amount in all to \$85.46 for every \$10,000 worth of property, so that it is only proprietors who are taxed directly for education.

**The Women's Christian Temperance Union.**

The Conductor reports:—Few, if any, buildings in Chicago surpass in point of nobility of purpose, beauty of design, and splendid appointments the erection in La Salle Street, known as the Women's Temple, in which is the home of the headquarters of the Women's Christian Temperance Union, the largest numerically, and the most influential of its kind in the world. Miss F. E. Willard, the president, to whose executive ability much of the success of the Union is due, was in Europe on sick-leave when the *Weekly News'* delegates called, but they met Miss Margaret E. Sudduth, the managing editress of the *Union Signal*, the principal publication of the Association, and which has a circulation of 75,000 copies weekly. We heard a good deal of

the precocity and smartness of American girls, but the young lady who introduced us to Miss Sudduth stated, although she had a card and explanatory pamphlet, that it was an *Arctic Expedition*, and Miss Sudduth accordingly seemed in doubt for some minutes as to the object of the call. After a hearty laugh, she readily gave an explanation of the work being carried on by the Union, which is world-wide in its character. With its national, State, district, county, and local unions, it has in the United States 150,000 members paying 50 cents (2s 1d) a year, which, according to a carefully-formed financial plan, is divided between the national, State, and local unions, and there is, besides, an affiliated membership of 200,000. There are five national-paid officers, all females, and some of the States have



THE WOMEN'S TEMPLE.

similar officers. The Union has in all 42 departments under the following general heads:—Legislative, preventive, educational, reformatory, and social. Through the efforts of the Union the teaching of temperance from a scientific standpoint has been made compulsory in all the public schools in 38 States of the Union, a fine being levied for non-compliance. Homes for sailors have been established at seaports. Special provision has also been made for soldiers and lumbermen, and in the large city prisons, through the agency of matrons, the Union has succeeded in getting the female separated from the male prisoners. An important and useful agency in connection with the Union is the Anchorage used for the protection of strange girls coming to the city until they find places. These are brought in by what are called station matrons, and about 2000 are accommodated annually, a great amount of good being done in this way. The Union has also under its wing city missions, reading-rooms, night schools, and day nurseries. In addition to a special intermediate branch for young women designated the "Y's" there is a juvenile Loyal Temperance Legion with an active membership of at least 15,000. The Union publishes separate papers for the "Y's" and the Legion, and a large amount of temperance and other literature. The Temple has a frontage of 190 feet and a depth of 96 feet, while it is 13 storeys in height, the fleche rising to 262 feet. The building cost \$1,200,000 (£240,000), and although the Union is not the sole owner it has the controlling influence. The site itself is valued at \$1,000,000 (£200,000), and is leased for 200 years at a rental of \$40,000 (£8000) a

year. This will give some idea of the value of ground in the business part of Chicago. The Rev. John McNeill is at present conducting daily prayer meetings in the Willard Hall.

### The Liquor Laws of Illinois.

In the State of Illinois the well-known system of local option prevails in regard to the liquor trade. The Prohibitionists have not yet the majority in the city of Chicago, but it is a singular fact that there are some districts, including that in which the *Weekly News* delegates resided during their stay in the city, in which there is no license for the sale of intoxicating liquor. This is due to the circumstance that the laws in force in these districts before they were included within the city have not been altered. It is not, however, to be understood that there is no drink in the district, as it is stated that those who want it generally soon come to know where it is to be found. Every license in Chicago costs the holder \$1000 (£200) per annum, payable in quarterly instalments in advance, and this money is devoted to city administrative purposes. When it is mentioned that there are about 7000 or 8000 saloons in the city, it will be seen that the Corporation derives a large revenue from this source. Licenses are granted by the Mayor on the recommendation of the Chief of Police or of other citizens, but where a protest is lodged, and it is ascertained to be well founded, the license is withheld. Besides, a license will only be granted when it appears that a saloon is required for the convenience of the locality. For instance, no issue will be made if the saloon is to be in the vicinity of a church, or in a high-class residential district where a saloon would be more or less of a nuisance. The saloons are opened at 5 a.m., and are required by law to be closed at midnight, and on Sundays to be open in such a way as not to give offence to churchgoers—that is, the blinds must be drawn down—but these regulations are not strictly enforced.

### The Keeley Cure for Intemperance.

The delegates had been only a very short time in Chicago when they began to hear of the marvellous cures wrought by the Keeley method of treatment for intemperance; and, impressed by its importance, they promptly made inquiries with the view of securing full and trustworthy information on the subject. All interested in the great question of temperance will no doubt be desirous to hear about this wonderful cure and its equally wonderful results. The cure is the discovery of Dr Leslie E. Keeley, and is the fruit of many years of patient and industrious research and experiment. Dr Keeley grew up with the idea that drunkenness was a disease, and might be cured like other complaints; indeed, this idea was a sort of family inheritance—both his grandfather and his father, physicians also, having spent many years of their lives in the investigation of the subject, but without discovering a sure remedy. The great discovery by Dr Keeley was made about fifteen years ago, and since then several thousands of men of all classes and conditions have, from being the most abject and miserable slaves of drink, been restored to their families and relations with the craving for liquor wholly eradicated and with the best prospects of leading healthy, happy, useful, and prosperous lives in the future. Dr Keeley's establishment is located at Dwight, a village with about 2000 of a population, situated about 150 miles to the south-west of Chicago, and is in a manner an hospital, with the combinations of a reformatory and a sanatorium, associated with which are hotels and boardinghouses and places of innocent amusement. Drink

has its victims in all classes of society, and those who resort to Dwight for the purpose of trying the cure include physicians, preachers, judges, lawyers, legislators, authors, engineers, bankers, merchants, army and navy officers, contractors, mechanics, &c. Nearly everyone goes to Dwight with the intention of keeping his visit a secret, but in some way or another the secret always comes out, and the strange part of the story is that after the first week no one wants to hide the fact that he has passed through the hands of Dr Keeley. Although a quiet one the daily life at Dwight is not dull, there being no chance for dullness and stagnation where so many men of so varied talents and abilities are assembled together. The rules connected with the establishment are strictly enforced. The treatment adopted consists in the hypodermic injection of bi-chloride of gold, and the taking of what is termed the remedy, every patient having to submit to the injection four times a day, and to use the remedy regularly every two hours. The injections are given in the left arm, and at each operating table there are two physicians, one to use

ceived for treatment. The charge for all is 25 dols. (£5) per week, to which board, which costs from 5 dols. (£1) to 21 dols. (£4 4s), has to be added. The U.S. Government has recognised the Keeley treatment, and has authorised the use of the remedies in 23 National and State Soldiers' and Sailors' Homes, while branch institutes have been established throughout the country.

REMOVING BUILDINGS.

Mr Sinclair, Cambuslang, reports:— Having often heard of how easily the Yankees could remove a building from one street to the other, I thought I would like to see this wonderful undertaking. After making a few inquiries if there was any such thing being done in Chicago I learned that there was a house being removed in 503-505 W. Van Buren Street. So Mr Brown and I set out for that locality. Nor were we disappointed when we got there, for sure enough there stood before our view a three-storey building that had been removed from the opposite side of the street, and was now resting upon a new foundation that had been built for it. In the first storey, almost in the centre of the building, there has been inserted what we might call a memorial stone bearing the following inscription:—

THE NORMANDY  
Removed from Nos. 116-112 Laflin Street  
To this site in June, 1893.  
L. P. FRIESTEDT,  
Contractor, Chicago, Ill.



KEELEY TEMPERANCE CURE.

the needle and the other to see that patients are provided with remedies for minor indispositions. The former observes closely the pupils of the eyes of every patient as he approaches, and regulates the injection accordingly. A third physician stands in the rear of these, who takes each patient by the wrist as he passes out to note the temperature of the body, condition of skin, dilation of pupil, &c., and also inquires regarding the general health of the subject. A peculiarity of the treatment is that the patients are allowed to imbibe whisky freely after their arrival, but they gradually lose the appetite for it, and usually by the second or the third day they turn away from it with loathing and disgust. The shortest period of residence required is three weeks, and in from this time to six weeks it is claimed that 95 per cent. of the patients leave Dwight permanently cured, the most of the remaining 5 per cent. being, it is said, those who have been foolish enough not to follow out the treatment. Persons suffering from opium, morphine, tobacco, and similar habits are also re-

ceived for treatment. This block that we saw move was not only to come up the street, but was also to turn the corner. In removing these buildings the first thing to be done is to get a hole put in the walls and solid foundations put in for the jacks. In heavy buildings as many as 200 jacks will be used. When the jacks have raised the building fully one foot, cross beams are put through 12 inches square of hard wood. On these the building rests, when the jacks are taken to the inside and employed in raising the building to admit of 18 inch square beams running the full length of the building. All along the way the building is to pass founds are laid, and beams on top of founds for rollers to run on. There are a great many block chains underneath the building so that in pulling it along no extra stress is brought to bear upon any one part of the building. From the enormous plant required, the number of hands employed, and the time it takes to move these houses (for we learned that they had been working at them for nearly two months, and to all appearance it will be a month or two yet before they are finished), I fail to see any great saving in not taking them down and rebuilding them.

The Building Moved Slowly

behind this block stands another that had been reached about fifty yards, but had not yet reached its permanent site, while a little further down the same street there was another on the rollers and almost ready to move. Mr Brown and I had to wait about two hours in order to see this block of brick buildings, three storeys high, move along. Four great jacks were put at each side of the building, and all wrought at the same time until the building began to move on the rollers. Then two horses at the end of the street began to pull the chains that were attached from the building round a windlass that was erected for that purpose, and so

## CHICAGO'S FIRE BRIGADE.

## BRAVERY OF FIREMEN.

## THE BOARD OF TRADE.

## PUBLIC HEALTH DEPARTMENT.

## WATER SUPPLY AND DRAINAGE.

## LIBRARIES OF CHICAGO.

(From the Dundee Weekly News of September 23.)

## THE FIRE DEPARTMENT OF CHICAGO.

Mr E. Bennett, Newcastle, reports:— This department, which so ably distinguished itself at the great fire at the World's Fair on Monday, July 10, is really worthy of notice. I was an eye-witness of this fire, which broke out in the Cold Storage plant, and completely destroyed the whole building and its contents. The fire alarm was given a few minutes before two o'clock, and in less time than it takes me to write it there were engines rushing to the scene of the fire from all points of the Fair grounds. They rushed and had a ladder run up the side of the building, and Marshal Murphy and his men were on the roof in an instant. They apprehended no trouble in putting out the fire, as a similar one had broken out in the same place about a month ago. But this fire proved itself to be a very different one from that, for it spread with alarming rapidity. Captain Fitzpatrick, with a number of his men, were very soon on the tower, a distance of 220 feet above the ground, little dreaming of the awful fate that awaited them. Fitzpatrick was standing on the ledge near the top of the tower with the hose in his hand, and was just in the act of calling something to Marshal Murphy, who was on the roof below, when a deafening explosion was heard, and one side of the tower was blown out, and flames shot out in every direction. The tower very rapidly became a mass of flames, and the poor fellows huddled themselves close together on the east side, with death of the most horrible kind staring them in the face. There had been life-lines fastened to the tower, but now they had caught fire and were burned away. It was a choice then between death by jumping or death by burning, and the poor fellows seemed to choose the former. Captain Fitzpatrick was the first to take the awful leap, and as he sprang into the air

## An Agonising Groan

went up from the crowd. Men stood with blanched cheeks and eyes nearly starting from their sockets, while women cried and wrung their hands, and a great number fainted. I shall never forget the awful scene, first one fireman, then another jumping into eternity. As one after the other took the fatal leap, the groans that went up from the horror-stricken spectators was heartrending. Poor Fitzpatrick, on striking the roof, crushed only half-way through, and there he hung. He was then quite conscious, and cried for help, and here a most daring act of self-sacrifice was witnessed. Murphy had no sooner called for volunteers to go and assist him in rescuing their captain than four of the men were on the ladder. Everybody who saw this deed of heroism seemed to shudder; to ascend to that roof meant certain death, as the flames were roaring underneath it. Heedless of all danger they ran to where Fitzpatrick lay, and tied a rope round under his arms, and lowered him to the ground. Cheer after cheer was given as he was

lowered, and immediately this was followed by shouts to the brave men to save themselves. Murphy and his men then made a

## Rush Through the Flames

to the ladder, and an instant later they were out of danger. Scarcely had the ladder been removed than nearly the whole of that side of the building fell in, sending flames and sparks high in the air. According to report, there have been twenty-seven lives lost, but I really do not think anyone knows how many were lost. The fire department of Chicago is generally acknowledged to be the best equipped and the most efficient in the United States, which means that it is the best equipped and most efficient in the world. The firemen of Chicago are called upon to be prepared for and to meet emergencies which do not rise in any city in Europe, and is said to have been brought to its present high standard of discipline and efficiency by the two chief marshals, who have had charge of the department since the great fire of 1871. The names of these gentlemen are Bunner and Swinie. The former retired from active service about ten years ago after reorganising the department upon a basis which has served as a foundation for the growth and character it has since attained. Mr Swinie was Mr Bunner's chief assistant, and therefore filled his place on his retirement. He was largely instrumental in suggesting and carrying out many of the reforms and improvements that characterised the latter's administration. Since the succession of Mr Swinie the department has quadrupled its machinery and its forces. In Mr Bunner's time Chicago was a city covering an area of something less than forty square miles with a population of 500,000. Now the city covers an area of 181 square miles, and has a population of 1,250,000. The strength of the department at the present time is

## 1000 Men and Officers.

72 steam engines, 24 chemical engines, over 100 hose carts, 30 hook and ladder trucks, one water tower, and three fire boats for river and harbour service. The stations are all worked by electricity, and the moment the alarm is given everything springs into motion, the stable doors fly open, the bridle falls from the horse's head, and they, being trained, bound forward into their places. The harness is dropped on them, and by this time every man is in his place, and they are out on the road in eight seconds. Some of our party saw an engine going to another fire this week, and they tell me that it was all draped with crape, and the firemen had crape badges on their arms, showing as tributes of respect for their fellows who had so nobly sacrificed their lives in an endeavour to save life and property.

## THE PUBLIC HEALTH.

Although the city of Chicago occupies a flat site, raised only a few feet above the level of Lake Michigan, it is far from being unhealthy. The climate, as a rule, is invigorating, notwithstanding that the temperature is usually down to zero in winter, and is sometimes very high in summer. Last winter 16 degrees below zero were recorded, being the lowest temperature registered in the city for a considerable time, and during the visit of the *Weekly News* delegates the thermometer on two days stood at 98 in the shade. Gentlemen in their offices were found working without coats or vests, and even the negroes were perspiring heavily when only employed in fanning themselves. One negro with beads of sweat of the size of small marbles on his face remarked to a delegate—"My golly! me not live much longer if it gets hotter dan dis." One gentleman was also heard to remark to another—

"Warm, isn't it?" The answer was—"Warm; it's red-hot." Several persons succumbed to the heat, and a great many had to be removed to the hospitals. A man who had been 30 years in the city said he had never experienced such a temperature. Returning to the matter of health, it may be mentioned that the highest death-rate recorded was in 1882, when it stood at 23'60 per 1000 per annum, while in 1878 it was as low as 15'70. As elsewhere mentioned, the health of the city is under a Commissioner appointed by the Mayor, but he must always be a man credited with some knowledge of hygiene and sanitary matters, not only as a practising physician, but as a man having a good practical acquaintance with sanitation. The Commissioner has charge, in addition to other matters, of the inspection of tenement houses and factories, and of plumbing, &c., and he is voted from \$3000 (£600) to \$35,000 (£7000) a year for the purpose of dealing summarily with any case of emergency in the health of the city, but if a larger sum is required he has to apply to the City Council. The members of the numerous classes of inspectors belonging to these departments receive salaries ranging from \$900 (£180) to \$2500 (£500) a year.

#### WATER SUPPLY AND DRAINAGE.

The waterworks of Chicago, like everything else in the city, are on a very gigantic scale. The supply is taken from the great inland sea of Lake Michigan, and so crude were the works for some time that the inhabitants, like those of Dundee, as alleged, in the spring and early summer months of this year, frequently drew fish from the hydrants. But all this has now been changed, and the quality of the water, although perhaps not exactly so good as it might be, has been greatly improved. In former years the water was conveyed from inlets at cribs about two miles out from the shore by means of large tubes or tunnels, and then pumped by steam power from towers nearly 200 feet in height into the mains, which distribute it throughout the city; but a new tunnel capable of furnishing about 100,000,000 gallons a day and running four miles out was lately constructed, and the total daily capacity is now about 250,000,000 gallons, with 1400 miles of pipping. For fire purposes there are no fewer than 13,411 hydrants. The system has cost altogether about \$18,000,000 (£3,600,000). In addition to these works there are about 40 artesian wells, from some of which the stockyards and other establishments are supplied. In this connection it may be mentioned that the World's Fair has an independent pumping station capable of giving 53,500,000 gallons per day. The sewage of the city is taken by means of pumps from the Chicago River, which by this means is now made to run from the lake into a canal connecting the above-named river and the Illinois River with the Mississippi, and thence to the Gulf of Mexico, the garbage being destroyed in a furnace which can consume 150 tons per day. The canal is being deepened, and Chicagoans look confidently forward to a time in the near future when large vessels will be able to pass from Lake Michigan down to the Gulf of Mexico. The southern part of Chicago is still, however, drained into the lake.

#### THE BOARD OF TRADE.

The Conductor reports:—The grain and provision market of Chicago is located in a large and handsome grey granite building known as the Board of Trade, and occupying a prominent situation in Jackson Street, at the south end of La Salle Street. The structure, which is only about ten years old, is surmounted by a tower 304 feet high containing the largest clock in the United States, and cost about

1,800,000 dollars (£360,000). In its very large quantities of grain and produce are disposed of every business day. The trading hall has a magnificent interior, 175 feet by 155 feet, and 80 feet in height, and contains three small circular pits devoted respectively to wheat, corn, and provisions. These are filled by the dealers, who are practically either auctioneers or purchasers, and when business is in full swing the scene is simply indescribable, resembling to some extent that in which a large number of bookmakers are pursuing their calling at a race meeting, and a stranger quite fails to understand how the screaming and shouting men in the pits can keep a record of what is passing. There are, of course, "bulls" and "bears" in any number, and when a "break" takes place in the rates, a scene of the wildest excitement and apparent confusion occurs. A grain dealer may shout, "I'll sell 5 Sept. at 80 cents," meaning 5000 bushels for September delivery, whereupon if this be under the former price a hundred hands go up, and

#### A Hundred Voices Shout

"I'll take it," and the transaction is properly booked all round. One man may sometimes sell and buy back several millions of bushels in a few minutes. The galleries are open to visitors, and when the *Weekly News* delegates looked down from them, they saw the grain pit crowded with shouting and gesticulating dealers, mostly with straw hats, but several with none at all, and others, on account of the great heat, *minus* also both coats and vests. The corn and pork men were conducting their business in a quieter fashion. The hall contains numerous black boards, one showing the weather in the United States on the previous day, and the others giving comparative tables of the receipt of stock and grain, and the latest closing prices in the London, Liverpool, New York, and other markets. A staff of upwards of 100 telegraph clerks and operators is required for the work connected with the market, and all these carry on their work on one side of the hall. The Board has a membership of about 2000. The admission fee is \$10,000 (£2000), but tickets are



NEW BOARD OF TRADE.

transferable and command only from \$2500 (£500) to \$5000 (£1000.) Nothing less than 1000 bushels of grain or 250 barrels of pork changes hands. An authority, writing on the Chicago Board of Trade, says, "It exercises a wider and more potential influence over the welfare of mankind than any other institution of its kind in existence, for it practically regulates the

### Traffic in Breadstuffs

the world over. Its transactions are of far more importance to humanity in general than are those of the Exchange of London, the Bourse of Paris, or the Stock Exchange of New York. Notwithstanding the severe criticisms to which the methods of the Board have been subjected from time to time, the commercial honesty and personal integrity of the members are recognised everywhere. On the Board of Trade there is a code of moral ethics which cannot be violated with impunity. The member who is not known to be commercially honourable, or whose word has once been broken, or who has been detected in a disreputable transaction, loses caste among his fellows, and is shunned for all time. Men lose fortunes here because they risk them, not on a game of chance, but on a trial of judgment."

### GOVERNMENT OF CHICAGO.

The government of Chicago and its million and a half of inhabitants is vested in a mayor and 68 councillors or aldermen. The Mayor is elected directly by the people, and sits for two years, which is also the term of office of the aldermen, one of whom retires in each of the thirty-two wards every year. The present Mayor is the Hon. C. H. Harrison, general manager and editor of the *Chicago Times*, who was elected some months ago by the largest majority ever recorded in Chicago, although his candidature was practically opposed by every newspaper in the city except his own. He has started on his fifth term, although he passed some years out of the chair after his fourth. He is undoubtedly a strong and popular man. Democratic in politics, he takes a broad and liberal-minded view on all subjects. The salary attached to the office is \$7000 (£1400) per annum, and about \$15,000 (£3000) is distributed amongst the aldermen, who receive a certain sum per day for their services. The Mayor has the right to appoint the chief of police (\$5000—£1000), chief fire marshal (\$5000—£1000), commissioner of health (\$4000—£800), and other officers, but the city clerk (\$3500—£700) and the city treasurer, who hold office for two years, are elected by the people. The Mayor has also the patronage in the appointment of the ten Police Court justices who sit in the eight district Courts, and are paid from \$1200 (£240) to \$5000 (£1000) a year. The City Hall and Courthouse, occupying the square bounded by Washington, Clark, Randolph, and La Salle Streets, are very handsome twin structures of four storeys and a basement, and are connected with each other by means of a rotunda. The building is French Renaissance in style, and the facades are of fine Bedford sandstone, while the massive Corinthian columns of the Peristyle are of polished Maine granite.

### THE LIBRARIES OF CHICAGO.

Chicago is proud of its libraries, and not without good reason. The principal institution of this kind is the Public Library, free to all, and at present located in the top floor of the City Hall Buildings. Beside the foundation of what is to be a massive fire-proof block, estimated to cost \$3,000,000 (£600,000), has just been laid in Michigan Avenue. The library, which is increasing by about 10,000

volumes annually, now contains 200,000 volumes in several languages, and reading cards were held during the year ending March 31, 1892, by 21,895 males and 21,333 females. In connection with the library there are 24 delivery stations from which 294,880 volumes were issued in the year mentioned. The average annual cost of operating the library is about \$100,000 (£20,000). In addition there is the Newberry Library, which is of a very high-class order and endowed by a bequest ultimately reaching about \$6,000,000 (£1,200,000), by the late Mr Walter L. Newberry. A few days ago, as the result of a legal decision, the trustees of the late Mr John Crerar, who left about \$3,000,000 (£600,000), will establish a third library.



COUNTY COURTHOUSE AND CITY HALL.

THE DARK SIDE OF CHICAGO.

AMONG CHINESE GAMBLERS.

IN AN OPIUM DEN.

DOWN "THE SHOOT"

"TOUGHEST" PART OF THE CITY.

(From the *Dundee Weekly News* of September 30.)

The delegates had been impressed by the greatness and the grandeur of the Fair and the grounds connected with it; they had traversed the handsome boulevards and admired their beauty; and they had been shot up and down, and stood, in sheer amazement, at the base of the Rookery, the Woman's Temple, and other magnificent office buildings, but they concluded unanimously that in the great and growing metropolis of the West, comparatively young as it was, and notwithstanding the great energy of the citizens, there must be a shady side not visible to the ordinary visitor. An important factor in determining this conclusion was the marvellously composite character of the population. Men of almost every nation and race on earth have established homes in Chicago, and, as the people in Britain are well aware, it is not always those with the most approved characters who, finding circumstances against them in the old country, act on the resolve to make a new start on the great Western Continent. Deeming that their visit would be incomplete without obtaining an idea of the darker side of Chicago life, the delegates expressed a desire to view for themselves some of what are known as the rougher quarters of the city. From representations made to them they concluded that it would be unwise to carry out their determination even in daylight unaccompanied by an officer of police, and steps to secure such assistance and guidance were accordingly taken. Towards this



ROOKERY BUILDING.

end the Conductor of the Expedition, accompanied by Mr Macdonald, the agent of the Anchor Line in Chicago, who kindly rendered many valuable services to the delegates, called upon a gentleman in his office in the Rookery with the view of obtaining his co-operation in the matter. It was explained to this gentleman, whose position and abilities gave him a commanding influence in Chicago, that what was desired of him was a letter of introduction to Major M'Claughrey,

**The Chief of Police.**

"And you shall have it at once," he replied. Having written the letter, he said, in a tone and manner which admitted of only one interpretation, "Now, you will take this to him, and if he does not do what you want, come to me to-morrow, and I will give him a dressing that he will never forget." This, it may be here explained, is only typical of the reception and the assistance extended to the delegates in every place in America which they visited. Armed with the letter, the Conductor, along with Mr Mungo Smith and Mr Dunlop, proceeded to the City Hall. Here they were directed to Major M'Claughrey's secretary, to whom the letter was handed and the object of the visit explained. "You desire an officer to accompany you in a visit to the slums. I'll easily arrange that," he said. "But," he added, "I had better take your names first, for the purpose of identification should you require a carriage back." The suggestiveness of this remark rather staggered the delegates, and caused their faces, bronzed as they were by this time, to blanch a little, but they had Scotch and not craven hearts, and looking to the big, robust figure of Mr Smith, and his wonderful walking stick made by himself out of a part of one of the railway carriages wrecked in the Tay Bridge disaster, they took courage and resolved to proceed. The chief's secretary, seeing that they were not to be



MR SMITH'S STICK.

deterred, called and introduced to the party one of the smartest and most experienced officers of the detective staff—Sergeant Belasky. "Come with me," said the sergeant, "and I will show you

**"Some of the Toughest Places of Chicago."**

Accompanied by the sergeant, we proceeded northwards along State Street for some distance until we reached a locality inhabited principally by Chinese. There was in deed no occasion to mention to us the nationality of the population of this district. John Chinaman, with his flat, yellow, almost expressionless face, his long pigtail of coal-black hair, his feminine-looking garments, and his peculiar shoes was everywhere in evidence. The legend, "Fine laundry," was of frequent occurrence on the walls and windows, and signs with Chinese characters were abundant. Pointing to a man standing amidst a group of natives of the Flowery Land, the sergeant informed us that he was one of the wealthiest Chinamen in Chicago, and asked us if we wished to be introduced to him. Nothing, we replied, would give us greater pleasure, whereupon the sergeant took us over and went through the civilised ceremony of introduction. The Chinaman cordially shook hands with us, and having given us a warm welcome to Chicago, asked the sergeant in very good English if we had ever seen "Bang-Loo." Having received a negative reply, he said—"Jamie, take them in to

**See "Bang Loo."**

Thus invited, we passed through what was ostensibly a cigar store—or "segar," as it is often spelt in America—and entered a large inner saloon. Here there were several long tables, and round one of these were fully a dozen Chinese all keenly absorbed in playing a game which we did not understand, and of which we could get no intelligible explanation. Before each player was a pile of silver dollars and half-dollars, larger in some cases than in others, as denoting the wealth or poverty of the owner, or the varying fortunes of the game. Button-shaped pieces with small strips of ribbon of different colours were used by the players, and as the game proceeded the croupier, sitting at the head of the table, raked in the round metal discs which appeared to be used as counters. These discs were about the size of a penny and had square holes in the centre. At the end of each game the croupier settled with the gamblers, according, of course, to whether they had won or lost. During the progress of the game the faces of the Chinese clearly exhibited the intense excitement under which they were labouring, and one, on watching them for a few minutes, could easily understand how men might wildly risk their all when seized by a fit of gambling fever, and then after a fatal turn of Fortune's wheel, with ruin and beggary staring them in the face, bring their own lives to a sudden and tragic end. More Chinamen were lounging around some of the other tables in the saloon apparently waiting for a sufficient number to start a game. Interested, but far from edified by the spectacle which we had witnessed, we turned our backs on the Chinamen and their gambling hell. When in the lobby on our way out the sergeant said—"Look in here," and opening a small door we had

**An Opium Den**

in full view. The den was of small dimensions, being only a few feet square, and lying on the couch was a Chinaman preparing to indulge in his Lethean opium smoke. Reposing on his side with his head resting on a large pillow the Chinaman, without raising his eyes to us kept steadily twist-

ing for some time a small piece of opium over a burning lamp. At length he placed the opium in the bowl of a pipe, and putting the end of the tube in his mouth, the poor infatuated wretch, with evident satisfaction, took several long inhalations of the smoking drug. "Now," said Belasky, "he will lie there for fifteen or twenty minutes, and he will fancy that he is in Heaven, or that the whole of Chicago is his own." As the Chinaman was placing the opium in the pipe he caught sight of us watching his movements, and the expression of his face was such as will never fade from our recollection. As the result probably of the vice in which he was indulging, the man was reduced to a mere skeleton, and his eyes, which were sunk far into his head, had the dull glassy, like stare of semi-imbecility. Almost sickened by the sight we hastily retired, leaving the Chinaman undisturbed in the heaven of his own imagination. After passing some distance along the street our guide, directing our attention to a young and vigorous-looking



CHINESE OPIUM SMOKER.

mulatto standing in a free and easy attitude with his hands behind his back at the corner of a street, asked us if we fancied who he was. Never having seen the man before we, of course, had not the least idea of his identity or occupation. "Well," said the sergeant, "that is one of our cleverest

### Coloured Detectives.

You know we have a large coloured population in Chicago, and some of the negroes are desperate characters. A razor is their favourite weapon. It ensures quick and sure work on the throat, and then, unlike a shooting iron, it never misfires or makes any noise. A narrow bag filled with sand is also used by some, and while a blow on the head at the back of the ear leaves the victim unconscious no mark is caused, and the ruffian escapes in silence. To cope with these coloured desperadoes it is necessary that we should have some officers of the same race, and Detective Green standing there is one of the smartest four that we have got." He then took us over to Mr Green, who after the usual introductions cordially shook hands with us, and said he was very pleased to meet some of the members of the *Weekly News* Artisan Expedition, of which he had heard. Mr Green inquired as to the cities from which we came, and we spent some minutes pleasantly with him talking about the old country, and in making comparisons, not always, of course, in favour of the new. On leaving him he said—"Take them down the 'Shoot,' Belasky." "That's where we are bound," replied the sergeant. Going down through Dago Alley, a rather unsavoury thoroughfare, our conductor halted at the "Shoot," and said—"Now you are in

### "The Toughest Part of Chicago."

Pointing to some blocks of houses, he mentioned that they were entirely occupied by immoral women, thieves, and criminals of the worst class on earth. One respectable-looking house of four storeys he singled out in particular, and stated that it was owned by the woman who resided in it, and who had about forty girls living with her. There was little or nothing outwardly to indicate that we were in such a quarter of vice and crime, but the appearance and conduct of some of the donizens quite removed from our minds any doubts which might have existed as to the truth of the statement of the sergeant. Some villainous-looking men, whom we should not desire to meet in the dark, indicated sufficiently the character of the male population, and the life of the women who came out on the street could be easily guessed.



A CHICAGO SLUM.

"You would not," remarked the sergeant, when we had reflected for some minutes on the horrible iniquity of the place, "be safe to come here at night. You might be robbed and murdered. Many men have entered this locality and no one but God knows where they are now. Their friends probably think that they have gone West, but they need never expect to see them again in this world." A closer acquaintance with the "Shoot" and its inhabitants was not, we considered, desirable, and accordingly we took our departure to a quarter of the city occupied entirely by coloured people. Here, at almost every door and window, we saw nothing but dark, ebony faces.

### Entering a Saloon,

which, the sergeant informed us, belonged to a wealthy negro, we observed seated round several tables, engaged in card-playing, groups of stylishly-dressed negroes. Every negro, if he has money, affects to be a swell, and is particularly fond of diamond jewellery. All were intent on the games in progress, but no dispute arose during our presence, and no combat with shooting irons was witnessed. For this we were not ungrateful. Some negroes, farther down in the world than their fellows, were busy cleaning the boots of the swellish card-players, but even some of these ape the manners of those higher up in the social scale, and it is not uncommon to see a negro shoeblack wearing a gold ring set with diamonds, or what appears to be such. Some other saloons were entered during our tour—the weather that day was "red-hot," as



the Chicagoans termed it, and the delegates, to tell the truth, were repeatedly attacked by a thirst which had to be quenched with soda water (or something else)—and in most of these we witnessed men in every stage of intoxication, from the slightly inebriated to the dead drunk. In one saloon we counted no fewer than half a dozen of the latter class all lying on the floor with their heads towards the back wall, sleeping off the effects of their debauch, and no one taking any heed of them. During our tour we could not help noting that our guide was thoroughly well known. In every saloon we visited he received a familiar nod from the bar attendant, and on the street the men and women, observing him, seemed to slink away with guilty fear. Remarking this to him, he replied, "Oh, yes; when anything is done and comes to our ears, we know where to look for our 'bairns.' We usually get admission to their houses at any hour of the night, but if we are once refused all that we have to do is to bring up a waggon, and, using it as a battering-ram,

### Knock in the Door.

We can always manage to keep the criminal class well in hand in Chicago." Other demands now pressing upon us, we thanked the sergeant for his kind attention and services, and, when giving the parting handshake, he said—"Come back in the evening, and I will show you Chicago by moonlight, when everything here will be in full swing, with people going to the devil at a thousand miles an hour." We had, however, been able, from what we had seen, to form a good idea of the character of the social and moral sores of the city, and had no desire to probe deeper into its gruesome abscesses.

Stopping at a long, low, ramshackle erection at the corner of Ewing and Jefferson Streets, the officers ascended a few rickety wooden steps, and entered a room 10 feet by 6 and 7 feet in height. It was dark and foul, and the only other occupants in addition to the sleeping men, who literally covered the floor, were beetles and rats. The only opening, except another doorway giving access to a slightly larger room, from which the door was missing, was a small window, tightly closed, looking out on the court in rear. Removing a stable lamp and holding it through the doorway, Inspector M'Donald saw before him nine men stretched on a bed of rags on the floor, and poorly covered by dirty-looking quilts. The sleepers, who rubbed their eyes and seemed frightened by the sudden interruption, were partly in underclothing and partly in their everyday clothes. The atmosphere was close and stifling. In another small room containing a little stove, and used as a kitchen, more men were found in bed. In these three boxes or rooms, with neither water, sanitary arrangements, nor ventilation, there were upwards of twenty-five men living. What had next to be done was to find the padrone or landlord and serve a notice on him ordering the premises to be vacated. It was then found that whatever knowledge of English the tenants had was now lost. But closely adjoining the lodging-house was a saloon, and to it the inspecting party resorted in their quest for information. After a lot of questions, a spare man with sharp features and a gold chain hanging from a broad-cloth vest, acknowledged that he was the lessee of the lodginghouse visited, whereupon Inspector M'Donald promptly gave him notice that no more than five persons could legally sleep in the house across the street. "Dat's all right," said Padrone Maglietta, smiling, "dere's only two dere now," and he held up two fingers to the Inspector. "Let's see," said Inspector Connell, and he led the way back. The men were still on the steps. They grinned as

### The Padrone Entered

with the Inspector. "Two, eh?" remarked the Inspector. Maglietta threw up both hands when he saw the rooms packed like barrels of herring. He recovered speech instantly, and swore at the occupants in Italian dialect. When the inspecting party was half a block away the padrone's voice could still be heard scolding the labourers. Bernard Rosa, whose saloon and lodginghouse occupy the frame building at the corner of Canal and Ewing Streets, was fined the other day, and it was not a particularly pleasant greeting that he extended to the Inspectors. He had obeyed the law, however, and the lodgers who formerly occupied the hole in the ground called a cellar had all been sent away. To get to this cellar, in which thirty or forty men slept, you had to pass through the saloon and down a ladder stairway. At the bottom there is an accumulation of smells impossible to catalogue. A broken window front of a twelve-inch aperture facing the side walk was the entrance for air and sunlight. Landlord Rosa pointed to the hole and exclaimed, "By jimney, there's plenty air, plenty ventilation." Then he added, "I was fined twelve dollah, and the Judge would not suspend. Why doan he fine someone else, eh?" He kept on asking this question as long as the Inspector remained, and he looked savage when no satisfactory reply was forthcoming. On a hot night the side walks on Ewing Street are densely packed with Italian labourers from the lodginghouses. They sit on the garbage boxes and listen to the music of concertinas. It is curious that a hurdy-gurdy or



NEW CRIMINAL COURT.

ITALIAN LODGINGHOUSES.

THE BLACK HOLDS OF CHICAGO.

SLEEPING IN FRUIT CARTS.

THE CHICAGO POLICE FORCE.

PINKERTON'S DETECTIVES.

HOW PAUPERS ARE TREATED.

THE ITALIAN LODGINGHOUSES.

Another aspect of Chicago life was laid bare in a visit paid to the Italian lodginghouses in the company of the Inspectors of the Health Department. These lodginghouses are situated chiefly in the neighbourhood of Ewing and Jefferson Streets.

mechanical piano are never heard on the streets in the Ewing district.

### Two Hundred People in One House.

An Italian tenement house at 125 and 127 Ewing Street contains two hundred people. It is a three-storey building with forty-eight separate apartments. There is a light shaft in the centre, but there is no ventilation. The plumbing and sanitation are extremely defective. Michael Buonanus rents the building for \$85 a month, and he says that he receives \$104 from his tenants. "Michael" can't talk good English, but he has two boys going to the public schools who explained things to the Inspectors. One of the rooms on the ground floor, 13 by 10 feet, had accommodation for a dozen roomers. A family of kittens rested contentedly under the long bunk. Sewer gas came up from the sink in the corner, and dirty water dripped down from the sink overhead. When the officers went upstairs a swarm of women and children crowded to the landings. Every room held a family and beds fitted up on chairs, tables, and everything else available. In some rooms two stoves were seen, one for the family and the other for the lodgers, who do their own cooking. While the atmosphere was almost unbearable, the rooms showed rude attempts at cleanliness and comfort. In one room the beds had white coverlets and Biblical pictures hung on the walls. Though the Inspectors entered at an unseasonable hour they were received with courtesy and shown everywhere. Louis Castlingilecci had a lodginghouse in his cellar at 203 Taylor Street. To reach the place the visitor has to double up and creep down the stairs. The landlord was ordered to close the place, and he has complied with the order. Twenty men slept on the floor.

### Lodged in a Basement.

The saloon kept by Michael Dicosola at 107 Ewing Street was crowded with men. A few stood at the bar drinking. These paid 5 cents a glass for beer. The men at the little round tables playing cards got their drinks at half rates. The landlord said this was the rule of the house. At the back of the saloon a cellar lodginghouse exists. Beds for forty men were ranged around the walls. A dozen men were abed when the officers entered. Clothing hung on lines stretched across the room. Insects crawled over the clothing. A cooking stove stood against the wall. Near by was a water faucet and sink connected with the open sewer. The exhalations were simply awful. Some loaves of bread were on the table. The floor was grimy with a thick crust of dirt on the broken boards. "Pretty good place, eh?" said the sleek, well-fed padrone. He was surprised when a notice to vacate was handed to him by the Inspector. He grumbled, but said he would obey the law.

### Slept in Their Fruit Carts.

A fruit shop kept by Greek merchants at 337 Desplaines Street afforded some interesting revelations. In the basement below thirty or forty Italian labourers were found huddled together in dirt and misery. There was no plumbing to speak of, and the smells were encyclopaedic in character. The men in the place said they were out of work and could not afford better accommodation. "It costs about 20 cents a day," said one of them. "But I don't live here," he added proudly; "I have a room to myself." The fruit store was jammed with peanuts in bags, and hundreds of bunches of bananas hung from hooks on the walls and ceiling. A row of push-carts or barrows, which fruit pedlars use on the street, were ranged along the shop. Instead of bananas or pears the push-carts held men. The carts in the day hold fruit. A thin



SLEEPING ON HANDCARTS.

sheet spread on the cart with a pile of rags for a pillow and the bed was made. The half-dressed men rubbed against the bananas as they slept. One of the men said his name was "Gentleman George." "I come from Athens," he remarked in very good English. In the rear of the store is the kitchen. The ceiling is not to be seen everywhere, for double-decked beds cover half of it. Men were asleep in these beds. The sanitary arrangements are horrible. A notice to vacate was served on the proprietor. "Gentleman George" sang, "I Had a Sweetheart," &c, when he saw the notice. Outside, on a garbage box, an Italian boy was warbling "Home, Sweet Home."

### THE CHICAGO POLICE SYSTEM.

The natives of Chicago claim for their police system, as indeed for everything else, that it is the best in the world. There is certainly no doubt that it has attained a high degree of perfection, and that it has been adopted by several other large cities in the States. The force, of which Major R. W. M'Cloughrey is the chief, numbers altogether about 2800 men, and costs annually about \$3,000,000 (£600,000). A large proportion of the force is Irishmen, and several of the natives of the Emerald Isle have risen to the higher positions, but almost every nation except China is represented, there being even some negroes on the strength of the establishment. The men, more especially in the city, are usually stationed at street corners, but there are also patrols who report themselves at intervals to their stations by means of the telephons fixed in boxes at convenient corners. From these boxes also officers can at once communicate with the stations when they have a prisoner in custody or when anything serious happens, and in a remarkably short time the patrol waggon, with manacles or ambulance appliances and four or eight officers if necessary, is on the spot. About 80,000 to 90,000 persons are apprehended every year in Chicago, and it will be understood how important it is that officers should not be off their beat. The police have always

### Their Baton in Hand

when on duty. In addition to the patrol system there is a Bureau of Identification, which is a valuable adjunct to the Detective Department, and in connection with which there are portraits of more than 12,000 criminals. A policeman must be 5 feet 8 inches in height, and weigh about 145 lbs., and 5 lbs. more for every half-inch in excess of the minimum. Any man who has been five years in the country possessing physical qualifications may be a member of the force. The salaries paid are good. Second-class men receive \$60 per month (£12); first-class men, \$83½ (£16 13s 8d); sergeants, \$100 (£20); lieutenants, \$125 (£25); captains, \$180 (£30); inspectors, \$250 (£50); and substitutes

receive \$28. A second-class man may rise to the first class after only nine months' merit service. There are also 25 matrons for attending female prisoners and children, and these are paid \$130 per annum. The pension system is in full operation, as after being twenty years in the force a man can retire and obtain an annual allowance for life of one-half of the salary of which he was in receipt at the time of his retirement.



CHICAGO POLICEMAN.

**PINKERTON'S DETECTIVES.**

Mr Logan, Glasgow, reports:—Pinkerton's National Detective Agency was founded by Allan Pinkerton, a native of Glasgow, Scotland, where he served his apprenticeship as a cooper. Shortly after coming to America, and still working at his trade, one day, while selecting wood in a thick forest, he discovered a gang of highwaymen. He managed to get away without being seen, and informed some Government officials. The place was surrounded by soldiers, when the whole party was either killed or taken prisoners. Pinkerton, as a reward for his cleverness got a handsome sum from the Government. The present business is divided into two separate and distinct branches, although both are under the same management. The Detective Bureau has nothing whatever to do with the employment of watchmen. The detective business was founded in 1850 by the late Allan Pinkerton, the father of the present managers, and shortly afterwards he began to furnish watchmen for banks, private residences, warehouses, &c. The reputation of the agency grew and the business developed. During the war Allan Pinkerton acted as chief of the United States Secret Service. Since his death in 1884 the agency has been continued by his two sons, the present managers. The organisation is a simple copartnership, consisting of Robert A. Pinkerton, of New York, and William A. Pinkerton, of Chicago. The principal offices are at New York and Chicago. There are also six other branches in America. The branches are in charge of superintendents, who have been in their employment for from fifteen to

twenty-five years. Mr Robertson, general superintendent in Chicago, stated that they have been connected with about seventy strikes during the last eighteen years, which is a very small percentage of the total number of strikes during that period in the United States. This agency is independent of Government control, and there are several States in the Union that prohibit their employment.

**RELIEF OF POOR.**

Mr R. A. Muir, Hill of Beath, as the result of inquiries made by him at the County Agent's Office in Chicago, reports:—When the poor make application to the agent for outdoor relief he hears what they have to say regarding their state. Then he or some of his assistants visit them, and see for themselves whether their statements are true, and if it is considered that they require relief; and if their family is not more than three he gives them what he terms a single ration. This in summer consists of 1 bar soap, 5 lbs. of peas or oatmeal, 3 lbs. of rice, ½ lb. of tea, ½ lb. of coffee, 24½ lbs. of flour; and in the winter 5 lbs. of meat and ½ ton of coal. This they may receive once a month. Then, when the family consists of more than three he gives them a double ration thus:—2 bars soap, 10 lbs. of oatmeal, 6 lbs. of rice, ½ lb. of tea, ½ lb. of coffee, 49 lbs. of flour; and in winter, 10 lbs. of meat, ½ ton of coal. Some make application to be entered into the Poorhouse or Hospital, but before this can be granted they must attend at the agent's office and be examined by a medical practitioner, who calls there every day at ten o'clock to examine applicants, and if he considers their case requires the Hospital, Poorhouse, or free medical treatment in their own home, he advises the agent accordingly. The law of the States in regard to the poor is that they must be resident one year in the State before they can claim relief, but this is not enforced, as none are ever turned away on these grounds. In December of 1892, when the weather was very severe, 2158 families obtained outdoor relief. 364 made application for the poorhouse, but only 273 were sent. In the same month \$80,000 were spent in supplies for the poor, and \$22,500 spent in salaries—this in a city of over 1,500,000 inhabitants. The agent gets in a supply of all the provisions necessary to supply the wants of the poor, and a stranger to the city entering the office would take it for a grocer's shop.

THE CITY OF PALACES.

AN ARTISTIC CREATION.

SCULPTURE AND ARCHITECTURE  
AT THE WORLD'S FAIR.

THE COLUMBIAN FOUNTAIN.

CHICAGO CHAMBER OF COMMERCE.

THE MASONIC TEMPLE.

THE AUDITORIUM BUILDING.

FIREPROOF CONSTRUCTION.

NEW FIELD OF EMPLOYMENT.

EARNINGS OF TYPEWRITERS.

(From the Dundee Weekly News of October 7.)

Mr Logan, Glasgow, reports:—On entering the Exhibition for the first time I was very much impressed with the grandeur, beauty, and general

effect of this city of palaces, and must say it completely surpassed my fondest expectations. The "White City" is the title I have often heard bestowed upon the groups of buildings known as the "Columbian World's Fair," and a beautiful city it is, in spite of its rapid growth, a city of palaces, artistic and beautiful. The growth of this city has really been marvellous. One can hardly realise that in two years a dreary, marshy waste has been converted into a splendid park full of buildings, the grandeur of which must be seen to be appreciated. The most casual observer, as he enters the gates, is impressed by the artistic taste and architectural skill which have produced the imposing collection of buildings which greet the eye. Not only is each building a thing of beauty in itself, but, in addition, the various structures have been so grouped as to give to all a most pleasing appearance. Great praise must be given to the landscape gardening of the Exhibition grounds: The conversion of the rude tract of marshy land into a splendid system of terraces and gardens, lakes and driveways, was a tremendous undertaking. The grounds are beautifully laid out with fountains, statuary, trees, and flower beds, which excited the admiration of us all. The Exhibition is situated in Jackson Park, about seven miles from the business portion of the city, and has an area of 633 acres, presenting a mile and a half of frontage on Lake Michigan. The largest and most conspicuous building in the grounds is the Manufactures and Liberal Arts Building. It measures 1687 by 787 feet; height of roof over central hall is 237 feet, and covers nearly 44 acres. This building is the largest in the world, and is the largest under one roof ever erected. It cost \$1,700,000. This mammoth building contains every kind of manufactured article, from the richest and most elegant furniture to the finest cambrio needle; also woven goods of cotton, linen, wool, and mixtures; jewellery and watches; carvings in marble, wood, ivory, and various other materials; furniture of all descriptions, &c. Nearly every nation in the world is represented in this vast building. France makes by far the finest display of any country. Her show is the most comprehensive, and certainly the most artistic. She easily distances all competitors in the race for public appreciation.

#### Administration Building.

By popular verdict this building is pronounced the gem and crown of the Exhibition palaces. The general design is French renaissance. It covers an area of 262 square feet, and consists of four pavilions 84 square feet, one at each of the four angles of the square, and connected by a great central dome 120 feet in diameter, and 277 feet in height. The four great entrances, one on each side of the building, are 37 feet wide and 50 feet high, deeply recessed, and covered by semi-circular arched vaults, richly carved. The interior features of this great building even exceed in beauty and splendour those of the exterior. Between every two of the grand entrances is a large hall or loggia 30 feet square giving access to the balconies above. The interior of the dome is enriched with deep panellings, richly moulded, and with sculpture in low relief and immense paintings representing patriotism, tradition, liberty, joy, commerce, art, industry, and abundance, all of heroic proportions. The architect of this building was Richard Hunt, of New York, president of the American Institute of Architects. This beautiful monument of architecture with its gilded domes is profusely adorned on the outside with twenty-six groups of allegorical statuary of exceptional merit, and cost \$555,000.

#### Machinery Building.

The Machinery Hall has been pronounced by

many second only to the Administration Building in the magnificence of its appearance, and is in many respects the most beautiful of all the buildings, with its pleasing combination of classic and Moorish architecture. This building measures 846 by 492 feet, and cost about \$1,200,000. It is spanned by three arches, and the interior presents the appearance of a large railway station. Here the machinist, and indeed anyone interested in manufactures, can find enough for weeks of study and observation. Here are steam, water, air, and gas engines and boilers, water wheels, shafting, belting, pulleys, cables, and machinery for transmission of power by compressed air, ice machines, machinery for working in metals, for making silk, cotton, woollen or linen goods, paper, tapestry, &c.; woodworking machinery of every description, printing presses, type-setting machines, lithographing and all kinds of colour-printing, photo processes, and other methods of illustrating; machinery for making watches, jewellery, buttons, needles, laundry work, grinding cereals, refining sugar, and evaporating milk. These are but a few of the kinds of machinery that are to be seen, but indicate the variety and extent of the contents of this immense building.

#### Art Palace.

The Art Palace is, to my mind, the most beautiful building in the grounds. It is Grecian Ionic in design, and a most refined type of architecture. Its shape is oblong, and is 500 feet long and 320 feet broad. The dome is 125 feet high, and is surmounted by a colossal statue of Winged Victory. The main building is entered by four great portals, richly ornamented with architectural sculpture, and approached by broad flights of stairs. The frieze of the exterior walls and the pediments of the principal entrances are ornamented with sculptures and portraits in bas-relief of the masters of ancient Art. The building has the most beautiful situation in the grounds. It is separated from the lake by



STATUE OF THE REPUBLIC.

beautiful terraces, ornamented with balustrades, with an immense flight of steps that lead to the water's edge. The interior of this fine building contains the masterpieces of the world's greatest painters, sculptors, etchers, carvers, and other artists. The cost of this building was \$670,000.

There are close on fifty buildings throughout the Exhibition grounds, of which a great deal could be written and said of them from an artistic point of view. The four I have chosen will give the reader a fair idea of the beautiful buildings that are to be seen in this "Dream City" by the lake.

### Decorative Sculpture.

The statuary throughout the grounds is all distinguished by a certain bigness and freedom of execution, which are no doubt very much in keeping with the national feeling and the purpose for which they were designed. In a prominent position at the water entrance to the Exhibition is a colossal draped figure of "The Republic," which



HEAD OF STATUE.

stands over sixty feet high. To convey an idea of its size I have given a reproduction of the model of the head with one of the sculptures standing beside it. From the chin to the top of the head is fifteen feet, the head itself is twenty-four feet in circumference, the nose is sixty inches long, and the arms are thirty feet from shoulder to finger tips. A band of electric light encircles the brow. The Columbian Fountain is by far the finest group of sculpture that adorns the Exhibition grounds, and merits much more than a passing notice. It is the design and workmanship of Mr Frederick M'Monnies, an artist of Scottish descent. This fountain is the principal object of interest on the evenings of illumination, and the artist may be considered to have obtained through it enduring fame. There



GROUP ON AGRICULTURAL BUILDING.

are some splendid examples of the modeller's art in the Administration Building. A group called the "Glorification of Discovery" is a beautiful piece of work. It is a boat with three figures, the centre figure stands on a globe of the world, and is supposed to point to the land. The other two figures are sitting on the prow ready to spring from the

galley and claim the new territory. This, and a group called the "Spirit of Fire Controlled," form good illustrations of the quality of the work exhibited, which meets the purpose for which it was intended. The Agricultural Building is decorated with an immense amount of statuary. All through the main vestibule statuary is designed to illustrate the agricultural industry. Similar designs are grouped at the grand entrances in the most elaborate manner. To one group I would call special attention, of which the above is a reproduction. It is a figure representing "Agriculture" standing between a yoke of powerfully horned oxen sweeping to the right and left.



"TRIUMPH OF COLUMBUS."

### Women's Building.

In the Women's Building there are some splendid statuary and ornamentation. The long classic-looking front with its pillars and arches is surmounted by a richly modelled pediment. There are eight winged groups of female figures—two at each corner of the building—typifying the virtues and graces that are supposed to belong to the fair sex. The design of this beautiful building is the work of a clever woman architect, Miss Hayden, of Boston, while the sculptor was Miss Rideout, of San Francisco. The Exhibition may be a financial failure, or it may not, but there is one thing certain that as an artistic creation it is a decided success, and I believe the most magnificent group of buildings to be seen in the world at the present time. Unlike any city which ever existed in substance, this one has been built all at once, by one impulse, at one period, and at one stage of knowledge and arts, by men almost equally prominent and equally developed in power. No gradual growth of idea is to be traced. The whole thing seems to have sprung into being fully conceived and perfectly planned without progressive experience. This "Dream City" is foredoomed to vanish in a few months, when its purpose has been fulfilled, when these imposing temples will come one by one to the ground, and their valuable contents be scattered all over the country. Chicago is sure to come in for the lion's share of everything. Its art galleries, public libraries, university, and every great building belonging to the city, is sure to be enriched with paintings, sculpture, and other works of art, and in this way Chicago will benefit far beyond any mere commercial advantage by having possession of the exhibition.

### Chamber of Commerce, Chicago.

Mr Sinclair, Cambuslang, reports:—When the Chamber of Commerce Building was first erected it was but eight storeys high, and was known as the Board of Trade. The organisation, however, grew so rapidly that it found these quarters too limited, in consequence of which it was decided to build

their present commodious Exchange on Jackson Street. After some time the old Board of Trade Buildings fell into the hands of Messrs Hannah, Lay, & Company. From an architectural point it was an ornament to the city, but was far from a paying investment. Yet, situated on a valuable site, it was capable of earning a profit for its owners, and so, to meet the requirements on it that had been unforeseen by the original builders, they decided to raise it to the enormous height of thirteen floors. From the primitive log cabin to the grand structures that adorn Chicago has been, so to speak, but a step. During the last half-century all classes of architecture have been represented. At the present time the absence of classic architecture especially in commercial structures, is notice



CHAMBER OF COMMERCE.

able. Modern necessities require modern architecture. The Chamber of Commerce Building is strictly modern, no attempt having been made to follow any particular class of architecture. The entrances might be termed Corinthian, and the building itself described in a similar manner to a column. Thus the lower portion or ironwork would represent the pedestal or base, the terra-cotta of the upper floors the frieze, and then the elaborate cornice surmounting it. The exterior presents a massive, and, at the same time, an artistic effect. Inside the arrangement of the building, the grand galleries, and beautiful designs, all respond to the one word—originality. Beyond doubt Chicago surpasses all other American cities, and has been for several years the pioneer in the erection of lofty buildings. The old building was put upon screws where it remained for two months. The entire foundation was taken out and a new one substituted, which now stands 13 feet below the sidewalk. The cost of reconstruction was fully \$1,000,000, and the time spent upon the work was two years.

### The Masonic Temple.

The majestic and artistic pile of stone, terra-cotta, marble, and steel, that stands at the corner of State and Randolph Streets in Chicago will be eloquent in description of a wonderful human energy and enterprise for many generations. The highest business building in the world, built by an ancient and honourable fraternity, comprehensive in design, and impressive in appearance, it will

prove an object of interest to all who admire the magnificent architectural achievements of our century, and to those who feel a pride in the power of human intellect and the patience of human perseverance. It cannot be expected, however, that the toil and sacrifice of the promoters of such a colossal enterprise will be appreciated and considered by the multitudes who, in the years to come, will gaze on this artistic monument to man's conception and execution. The world relishes the luscious fruit of the vine with little or no thought of the hand that planted the vine, so we sometimes look with wonder and admiration upon these buildings without ever thinking on the lives that were worn out upon these stupendous erections. The exterior walls of this building have the very appearance of simplicity, but in this particular they will stand as a perpetual monument to the master mind of the architect who designed them. The eye of the observer leaves the ornamented granite base, and passes along the shaft with nothing to arrest its progress till it reaches the ornamentation at the top. This serves to deceive the eye and mislead the judgment as to the altitude of the building. The tower on the Auditorium looks high, yet the Masonic Temple is by actual measurement thirty-two feet higher than any point of observation on the Auditorium Tower, and is twenty-eight feet higher than any point of observation in the city of Chicago. Entering under a granite arch forty feet high, and thirty-eight feet in width, is a rotunda, with walls of Italian marble and a mosaic floor. On either side of this spacious rotunda, stairways of marble ascend to the floor above, and coming together into one staircase, constructed of ornamental iron with marble tread, ascends between columns of bronze through the twenty floors to the roof. At the further end of the rotunda, in a semi-circle, are fourteen passenger elevators, which are indispensable to those whose business it is to go to the various floors of this skyscraping building. This great building is said to be the highest commercial building in the world, and cost four-and-a-half million dollars, is 302 feet above the sidewalk, and twenty-one storeys high.

### The Auditorium Building.

This is another of Chicago's sky-scrappers, and is situated near the Masonic Temple. It has a total frontage (fronting Congress Street, Michigan and Wabash Avenues) of 710 feet, and is built externally of granite and Bedford stone. The height of the main building (ten storeys) is 145 feet; tower above main buildings (8 floors), 95 feet; lantern tower above main tower (2 floors), 30 feet—total height, 270 feet; size of tower, 70 x 41 feet. The foundations cover about two and a half times a larger area. The weight of the entire building is 110,000 tons; weight of tower, 15,000 tons. The interior material—iron, brick, terra-cotta, marble, hardwood finish, &c. The ironwork cost about \$600,000. Number of bricks in building, 17,000,000; number of square feet of Italian marble mosaic floors, 50,000; number of square feet of wire lath, 800,000; number of square feet of plate glass, 175,000; number of square feet of plate glass, 60,000; miles of gas and water pipes, 25; miles of electric wire and cable, 230; miles of steel cable for moving scenes on stage, 11; electric lights, 12,000; dynamos, 11; number of electric motors for driving ventilating apparatus and other machinery, 13; number of hydraulic motors for driving machinery, 4; number of boilers, 11; number of pumping engines, 21; number of elevators, 13; number of hydraulic lifts for moving stage platforms, 26. The permanent seating capacity for conventions,

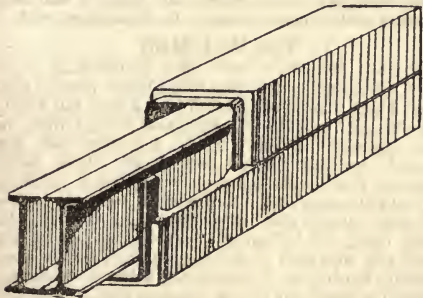


AUDITORIUM.

&c., is over 4000, and the building contains a complete stage and organ. The Recital Hall has seats for over 500. The business portion consists of stores and 136 offices, part of which are in the tower. The hotel has 400 guest rooms, and the dining-room is 175 feet long. The kitchens are on the top floor. The magnificent banquet hall is built of steel, on trusses, spanning 120 feet over the Auditorium. There are a few other sky-scraping buildings in Chicago, such as the Rookery, which is 159 feet high; Grand Central Passenger Station tower, 200 feet; Owing's Buildings (top of Fourteenth Street), 158 feet; Tacoma Buildings, 164 feet. It must be very gratifying, however, for those who do not care to live so far up in the world to know that in future no building will be allowed to go beyond a height of 130 feet in Chicago.

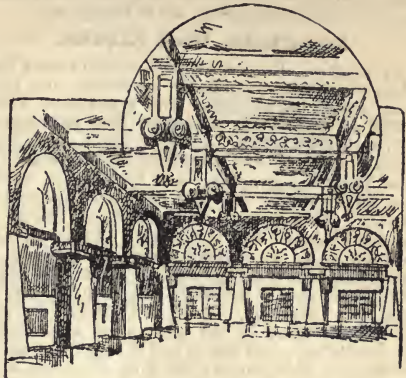
**Fireproof Building.**

The subject of fireproof construction is growing in favour all over the States. The necessity of fireproof buildings in large towns and cities is demonstrated daily, and nearly all the large new buildings are being built more or less fireproof. For beams



FIREPROOF GIRDER.

steel is now being substituted for iron. Steel recommends itself not only as being cheaper, but having greater strength. Lighter sections can be used, thus considerably reducing the cost. Steel is now being used as columns instead of cast iron, the cast metal being sometimes dangerous on account of honeycomb and blow-holes. No such danger exists in the steel, and it is now used in all the large buildings. The need of such buildings is obvious. Great buildings are burnt down daily in the States, some of them causing no more remark than a few lines in the papers, headed—"A Big Blaze at \_\_\_\_\_." One notable building of steel is worthy of mention as being absolutely fireproof. This is the publishing house of Rand, M'Nally, & Co., Chicago. The framework is entirely of steel, firmly bolted and riveted and so proportioned that the stress is evenly



BANQUET HALL.

distributed. The fronts are fireproofed with terracotta, and the interior is fireproofed with hard burnt fireclay, no part of the steel being exposed. There are 15 miles of steel rails in the foundation, besides the 12-inch and 20-inch steel beams. In the building there are 12 miles of 15-inch steel



HOLLOW TILE ARCH.

beams and channels, 2½ miles of tier and angles in the roof, 7 miles of tie rods, 10 miles of Z steel in the columns, 12 miles of steam pipe, 370,000 rivets and bolts. The amount of steel in the foundations is 1000 tons; beams, &c., 2000 tons; columns, 700—making a total of 3700 tons of steel in this giant structure.

**STENOGRAPHERS AND TYPEWRITERS.**

With the invention and improvement of the typewriter and the teaching of shorthand, a new field of employment has been opened up, more particularly for women, and it is widely increasing in area. There are several thousands of stenographers and typewriters in the United States; in fact, there is scarcely an office of any size in which business men of all kinds have not proved the exceeding great value of such servants in carrying on their correspondence. Not only do they get through far more work by the employment of stenographers, and save themselves much irksome labour, but with the typewriter there is no caligraphy which the author himself could not decipher, the letters being in reality printed. A large proportion of the typewriters are young women, and a business gentleman in Chicago, with whom the writer conversed on the subject, said emphatically that they were by far the best clerks. He added—"You never get any impudence from them, and they always attend to their work. They never think of going home until they have finished what they have to do, and there is no such thing as having their friends calling upon them during business hours and asking them out to have a drink." Stenographers are run with several trains for the convenience of business men. Good typewriters in Chicago are usually paid from \$10 (£2) to \$12 (£2 8s) a week, and beginners about \$7 (£1 8s), but if clerks have a fairly good education and can spell well, they usually attain considerable pro-

iciency with the typewriter in a very short time. Some female stenographers are in receipt of

### Remarkably Good Salaries.

As instances of these, it may be mentioned that a firm of provision merchants in Chicago pay their most expert stenographer and typewriter, \$1500 (£300) a year, while a similar firm pay one of their staff \$1800 (£360), and give her a carriage in which to drive to and from the stock yards. In New York stenographers and typewriters receive from \$8 (£1 12s) to \$20 (£4) per week according to ability. The systems of stenography chiefly in use are Pitman's and Graham's. There is said, however, to be one serious and growing trouble in connection with the typewriter. As a rule she is young, and she is generally also good-looking, of attractive manners, and well-educated. The American woman, on the other hand, after marriage usually ages very early, and through the use of powder her skin rapidly loses its freshness, and, according to common report, she settles into a rocking-chair with its associations of lager beer, chewing-gum, and novel reading. The typewriter is in close communication during the greater part of the day with her employer—sitting, in fact, for long spells at his very elbow—and the knowledge of this, coupled with the slackening of attentions at home, often arouses the green-eyed monster in the breast of the wife. Therefore when the husband is longer than usual in returning in the afternoon, he is invariably put through a domestic catechism, and the explanation of pressing business does not, to all accounts, always remove the suspicions of the wife, the very sound of the word *pressing*, especially if frequently repeated, often causing the fire to burn more fiercely than before; and while the office work, no doubt, proceeds smoothly and expeditiously the current of the home life grows more and more turbulent until, as sometimes happens, one or other of the parties petitions the Divorce Court for a dissolution of their partnership.

### IRON AND STEEL.

#### ILLINOIS STEEL COMPANY.

#### CONDITION OF IRONWORKERS.

#### MINING MACHINERY.

#### SCOTTISH CLUBS IN CHICAGO.

#### OFFICE AND BANK FURNITURE.

#### THE CHICAGO PRESS.

#### MODEL NEWSPAPER OFFICES.

#### WAGES OF COMPOSITORS.

#### RAILWAY CAR COUPLINGS.

#### SHUNTING OPERATIONS.

#### FALLING FROM TRAINS.

#### RAILWAY CROSSING GATES.

(From the Dundee Weekly News of October 14.)

Mr R. Dunlop, Motherwell, reports:—The most important iron and steelworks in or near Chicago are those of the Illinois Steel Company. This Company is a corporation formed by the consolidation of the North Chicago Rolling Mill Company, the Joliet Steel Company, and the Union Steel

Company. This brought under one control no less than five plants. Other property, such as coal lands and coke ovens, &c., belonging to the separate companies was included, the whole comprising a property which is capitalised at £10,000,000. The five plants occupy 500 acres of ground, and the coal lands consist of 4500 acres, with 1150 coke ovens. The Company have 1500 cars in the coke trade, and the internal transportation at the different plants require the use of forty-two locomotives of the standard gauge, and seventeen narrow gauge locomotives for special trucks. There are sixty miles of standard and seven miles of narrow gauge. The output of finished iron and steel is over 680,000 tons per year. In one year (1890) the output was:—Rails, 539,603; rods, 49,800; bar iron and steel, 56,415; billets, 29,295; beams and channels, 15161—total, 680,274 tons. The blastfurnaces produced during the same period:—Pigiron, 614,240; spiegel, 32,777. The Bessemer Works (four plants) produced 751,833 tons of ingots. About 10,000 men are employed in the mills of the Company when they are fully employed, the annual pay-bill being over £1,200,000. All the works were originally built to make rails, and for many years the activity in that trade was such that no other product was thought of, but the increase in the demand for other forms of steel made it necessary to diversify the product, and the Company now make billets, rods, and beams as well as miscellaneous bar iron and steel. They are presently laying down a large open hearth plant and plate mill, and when all the additions are complete with four new blast furnaces the annual capacity will be enormously increased. One of their plants is at Milwaukee, ninety miles from Chicago, and one at Joliet, forty miles south. All the works are connected with the central office in Chicago by telegraph and telephone service. The South Chicago Works which I visited are the largest of the Company's works. Finely situated on the lake for the receipt and shipment of material, they have excellent facilities. The largest steamers plying on the lakes bring ore to the yards, and there is also connection with three railways. In connection with

### The Rail Mill,

the plant consists of four blast furnaces, 21 x 75 feet, a Bessemer plant with three 10 ton vessels, a 40 inch 3 high blooming mill, a 27 inch 3 high rail train. The metal from the blastfurnaces is used direct in the Bessemer Works. There are three ten ton vessels working to one casting pit, three laden cranes, four ingot cranes, two blowing engines, pressure pumps, &c. The steel is cast into ingots 16 inch square, making six lengths of rails, all the rails being flat-bottomed. From the casting pits they are conveyed to the gas-soaking furnaces containing ten ingots. A crane-man, without assistance, takes the ingot out of the furnace, and dropping it into a square-formed box on its end, it is conveyed by machinery to the blooming train, where it is upset on to the table. A few passes here, and it is reduced to a bloom 8 inch square, and cut into two, each making three rails. Usually these are rolled direct to rails, but a furnace is here provided for any that may be too cold. Any of them too cold are here dropped on to a pair of suspended hooks, and carried across to a table. Here they are picked up with an ingenious machine, one man taking them up and placing them in the reheating furnace without the help of anyone. The machine can lay hold of the bar at the end or the middle, wherever the operator wishes. The latter does everything himself—pulls up the door of furnace, and draws the bars out again, and places them on the table for the rolls. The finished rail passes to the saws, where all three saws drop





ILLINOIS STEEL COMPANY'S WORKS, NORTH PORTION.

on it at once; then, travelling on to the hot bed, the rails are pushed by machinery right over to the cars; then to a complete finishing-house, where they are straightened, drilled, inspected, and loaded on the cars. The whole plant runs like clockwork. The mill never ceases from Monday till Saturday. All tonnage men work an eight hours day. As there are three sets of men, the mill can turn out 1200 tons per twenty-four hours. The whole mill is worked by machinery, and although the men's work is constant and hot, still it is not laborious or exhausting. The men have good wages, as the large output enables them to

### Earn Good Wages

on low tonnage rate. The method of regulating wages here is by a sliding scale, said scale being mutually agreed upon by both employers and workmen. It stands good for a year. If the prices rise 5 or 10 per cent., the men get an advance in wages to that amount, or if they fall, they submit to a corresponding reduction. The employers' contract books are shown to the men's Committee, and there is very seldom any trouble. The number of workmen here is about 3500, and great numbers of them own their own houses. The mode generally adopted to become owner of their own house is by the aid of building societies, although some of them purchase their houses right out. I think it only right to say that Mr Walker, the general manager, was very courteous when I called upon him and explained the object of our visit. He very kindly accompanied me round the works, and explained the systems of work, &c. All the other plants of this Company are shut down just now. Trade is not the best at present. The money market, the tariff question, and other things are helping to keep things quiet. Prices are cut keen, and there is great competition for the orders that are going. Mr Walker takes a kindly interest in the welfare of his workmen. Through his agency a special building has been provided for the care of any of the workmen, sick or injured, where they have medical attendance, food, &c., free until they are recovered. He is presently arranging for another building, to be used as a library and for recreative purposes. Below you will find the earnings of the workmen occupying some of the important positions in the works. These figures are the average earnings of three months:—Blower, £30 per month;

pourer, £32 per month; 1st spiegel-melter, £42 per month; 2d spiegel-melter, £26 12s per month; 1st vessel-man, £42 per month; 4th vessel-man, £21 8s per month; 1st ladle-man, £42 per month; 4th ladle-man, £20 12s per month; 1st pitmen, £42 per month; 4th pitmen, £21 12s per month; stage-man, £31; mechanics, from 10s to 14s per day.

### MINING MACHINERY.

Mr R. A. Muir, Hill of Beath, reports:—I visited the works of Messrs Fraser & Chalmers, mining machinery makers, in Chicago, and was very hospitably received by their manager, who sent one of his assistants round the works with me, and who gave me an explanation of all the different pieces of machinery which we came in contact with. The works are of great size, covering a large area of ground, and employing a great number of hands. Mr Chalmers, a very pleasant man, the chief partner in this gigantic firm, is originally from Dundee. They have not only supplied machinery for mining plants and smelting and reduction works in every State and territory where mining is followed in America, but have many plants in operation in Alaska, Canada, Nova Scotia, Australia, Spain, Russia, and South Africa. Their annual consumption of pig-iron, sheet iron, and steel, merchant bar iron, &c., is about 13,000 tons, and their product comprises steam engines, boilers, and machinery for the systematic milling, smelting, and concentration of ores. As an instance of the size and weight of some of the pieces of machinery which they manufacture here, I was shown a hand wheel in the act of being turned, the diameter of which was 24 feet, the breadth of face 76 inches, weight 65 tons, and I was informed that they made larger ones than that.

### OFFICE AND BANK FURNITURE IN CHICAGO.

Mr Thomas Logan, Glasgow, reports:—Among the many industries of this teeming city of business there is one that deserves special mention, viz., that of fitting and furnishing banks, offices, and saloons in an artistic manner with that taste and completeness which fulfil the demands of the present age of progress. I visited the warehouse of Messrs A. H. Andrews & Co., Wabash Avenue, bank, office, and school furnishers. We were very courteously received and shown over the building by



ILLINOIS STEEL COMPANY'S WORKS, SOUTH PORTION.

the manager, Mr Halbrook. This firm is the largest of its kind in America, employing over 1500 hands, which includes cabinetmakers, chairmakers, upholsterers, carvers, varnishers, map and black board makers, &c. Mr Andrew, who is a thoroughly practical and expert cabinetmaker, is the inventor of several roll top desks of a very attractive design. One feature in connection with these desks is that one lock and key is all that is required for about twenty drawers. The lock is fixed in the centre drawer, and by locking it the others become locked at the same time. This is done by an automatic arrangement, which cannot be seen from the outside. Mr Andrew is also the inventor of a folding bed, which is a very attractive piece of furniture for the parlour, and is much used by the people of Chicago. They cost from £5 to £60, which I consider very dear for the money. This firm also shows something new in metal chairs, piano stools, tables, and easels. These articles are newly invented, but is now past the stage of experiment, and are exceedingly popular wherever seen. They are made of steel wire, properly tempered, finished in brass, nickel, or antique copper, and are indestructible. This kind of furniture is sure to become very popular. The wages that this and other firms pay in Chicago are as follows:—Cabinetmakers, 1s to 1s 5d per hour; upholsterers, 1s 8d per hour; carvers, 1s 4d to 2s 1d per hour—according to ability. Varnishers, as a rule, are very low paid, ranging from 10d to 1s 2d per hour. The hours wrought in the above trades in Chicago are 9 hours per day, Saturdays included. Some of the small carving shops work 8 hours per day, or 48 per week. There is also a great deal of piecework done in connection with the furniture trade in Chicago. I may state that the trades mentioned above are in a very bad state at present, and I am told that it is likely to be worse before it improves.

#### UNITED CARPENTERS' BROTHERHOOD.

Mr David Brown, Govan, reports:—I had the pleasure of calling upon Mr James B. Cogswell, president of the United Brotherhood of Carpenters in Chicago. After informing him of the object of our visit, he was very pleased to see us. The wages of the carpenters are 35 cents per hour. They were receiving 40 cents some time ago, but the surplus labour thrown on the market has caused a reduction to be made, and wages were pending arbitration. They work 48 hours per week, and have no half-holiday on Saturdays. Their weekly wage is \$16.50 (£3 10s). There is no such thing as apprentices in the trade. They hardly understand you when you ask how long do apprentices serve to learn the trade. Young men are paid beginning at \$1 per day, and afterwards are paid according to ability. They are not allowed to work overtime, but should any emergency arise necessitating overtime, the men are paid time and half, and on Sundays double time. There are upwards of 12,000 members in Chicago alone. There are embraced in the United Brotherhood twenty-three branches. There is also affiliated with it the Knights of Labour Carpenters' Assemblies, four branches, while the Amalgamated Society of Carpenters has also in affiliation five branches. These have an agreement with each other, which took effect on April 3d this year, and remains in force till April 3d, 1895—"For the government of Union carpenters under the jurisdiction of United Carpenters' Council, with directory of organisations affiliated." For some time back the Masters' Association of Carpenters in Chicago have held that it was impossible for them to live up to the agreement made with Carpenters' Council last April. They say that

through the stringency of the money market and the great falling off in building operations they are unable to comply with them. They are as follows:—"Article 3—That the minimum rate of wages be 40 cents per hour. Article 9—All members of the Master Carpenters' Association shall employ none but Union men of good standing. Article 10—That no Union carpenter affiliated with the United Carpenters' Council shall work for any one who is not a member of the Masters' Union." The carpenters had a right to expect that the masters would carry out their part of the contract in good faith. This the masters claimed they were no longer able to do, the fact that they were forced to compete with non-Union employers who paid their men from 25 to 35 cents per hour adding materially to the difficulty. Their case was submitted to arbitration, with the result that the minimum rate of wages for three months from July 1st will be 35 cents per hour; and also that Union carpenters may be allowed to work to any employer provided they are paid the standard rate of wages. The carpenters, at one time the poorest organised, are now among

#### The Best Organised

in the whole line of labour's field in the city of Chicago. The organisation has the honour of having the largest membership and the greatest number of local Unions of any one trade Union in the entire world. It dates its existence from a meeting held for organisation in the city of St Louis, Mo., in the spring of 1881. Previous to the meeting in St Louis, two attempts had been made at uniting the carpenters of the United States in a general Union. Both attempts had been signal failures. One of them had been made in 1854, the other in 1867. The growth of the Order has been gradually increasing. In the year of 1881 the number of Unions was 13 and the membership 2042, while in 1892 the number of Unions was 802 and the membership 51,313. The Brotherhood has been very active for the past six years in reducing the hours of labour. In the four years (that is from 1886 till 1890) they succeeded in reducing to eight hours a day's labour in no less than 36 American cities. In the four years ending July, 1890, a nine-hour day was established in 234 cities, and in the next two years this number was increased to 393. The Union exists in 724 cities. The amount of the reduction of hours was sufficient to give employment to 11,550 carpenters more than would have found work if all had been working a ten-hours day. Where wages, eleven years ago, were 6s to 10s per day they have been advanced to 9s to 14s per day. Within the last five years wages have so much increased that in 531 cities it has been computed that no less than five and a half million dollars have been earned by the journeymen carpenters where they have Unions.

#### AMERICAN NEWSPAPERS.

American newspapers, Europeans would consider, are conducted on peculiar lines, but it has to be borne in mind that the Americans are a go-ahead people in every respect, and that they would not be content if they did not, as regards their journalistic literature, have a way of their own. Britishers when they see some samples of American journalism will generally be inclined to let them have their own way all to themselves, although, no doubt, the Yankee thinks that he is much the smarter of the two. The American reporter, as a rule, does not, like his brother in Britain, give plain unvarnished narratives of speeches or occurrences; what he supplies rather appears to be his own interpretation of the motives of the speaker or of the actor, with reflections of his own

as well. You can dispense with these interpretations and reflections, however, by merely reading the head lines, which usually give all the solid information you can find in a column of matter. These headings are generally very sensational. For instance, on the morning after the great conflagration at the World's Fair one Chicago newspaper headed its report—

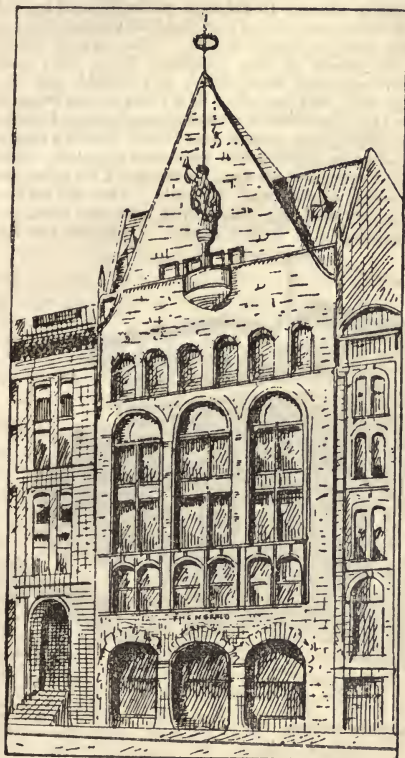
### "In Graves of Fire,"

while another had "In Hell's Fiery Blast." There can be no doubt, however, that in the kindred art of illustration the Americans are considerably ahead of us, as by the processes which they adopt they get a much finer finish on their pictures than we do. On the morning following the Exhibition fire several of the papers had numerous striking pictures of the occurrence. The newspapers of Chicago are, without doubt, smartly conducted, and have enormous

room is of black Belgian marble, surmounted with black iron wrought in graceful designs. The composing room—to which the visitor ascends by means of either of two great elevators framed in hand-wrought iron and travelling in a shaft walled from top to bottom with the finest Italian marble—has white enamelled walls, and is finished throughout in marble, iron, and oak. The type stands are of iron, with the monogram of the *Herald* wrought in gold in each, and everyone of the 200 or 300 cases is connected with the "copy-box" by an electric call. Indeed, there is a complete electric call system throughout the whole office. A clothes locker is set apart for every compositor, and amongst other provisions for their comfort are filtered ice water, drunk out of a solid silver gold-lined drinking cup, and a restaurant finished in marble and oak, and supplied with reading tables and library. The luxuries of the stereotypers include a Turkish bath and marble-walled toilet room. In

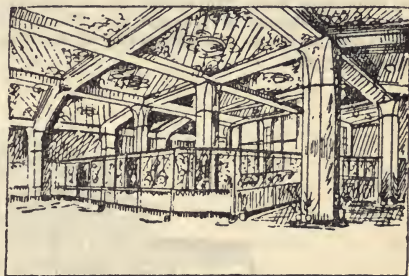
### The Publisher's Room

the telegraph instruments for his special use are of sterling silver, which is also the only metal employed for the electric call speaking tubes, and the electric light fittings. The timbered ceiling, the 7-foot wainscoting, and all the furnishings are of solid mahogany, while the walls above the wainscoting are encrusted with matrices of the



CHICAGO HERALD BUILDING.

circulations. The daily issues number 24, and the weeklies 260, while there are also several bi-monthlies and quarterlies. Some of these are in German, there being about 400,000 "Dutch," as the Germans are usually styled, in America. The office of the *Herald*, situated in Washington Street, is a magnificent building of six storeys, and is fitted and equipped in the most sumptuous style that the human mind could devise. With a red granite base and an elevation of beautiful terra cotta, the building has a remarkably fine interior, the ivory and gold of the arched ceiling of the ground floor, which is supported by handsome Sienna marble columns, being admirably set off by the arabesque work on the walls, while the floor is of Italian mosaic. The counter of the counting



COUNTING ROOM, CHICAGO HERALD.

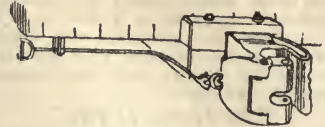
*Herald*. The building is illuminated throughout with the electric light. About 200 incandescent lamps and 30 arc lamps are fitted up for the lighting of the ground floor, and no fewer than 400 lights are in use in the composing room. Although founded only in 1881, the *Herald* requires ten perfecting presses of the best pattern, with a capacity of fully 100,000 copies an hour, for its publication. The very fine photo-engraving plant in the art department, which the *Herald* has made a strong special feature, is run by electric motors. It is the boast of the proprietors that the *Herald* is the largest 2 cents (1d) paper in the world, but the *Weekly News* delegates had to pay 5 cents (2½d) for each copy of it on the street, a big "5" being stamped over the "2." Mr J. W. Scott, the publisher and one of the proprietors, is a Scotchman, and Mr H. G. Forker, the assistant managing editor, who hails from Dysart, contributed at one time to the *Dundee Courier* and the *Dundee Weekly News*. The *Daily Record* and the *Daily News*, morning and evening newspapers, published under the same auspices, are also located in a suite of large, roomy, and well equipped buildings. The composition of these papers is partially effected by linotypes, but the most of the type-setting on the Chicago press is done by hand. The *Record* and the *News* have very large circulations, the daily average for the former being 130,000, and for the latter 210,000, but on the day after the Exhibition fire the *Record* had a sale of 170,000, and the *News* about 230,000. For these large production the very best printing

machinery in the world is required, and the proprietors have accordingly in use

### Quadruple Hoe Presses

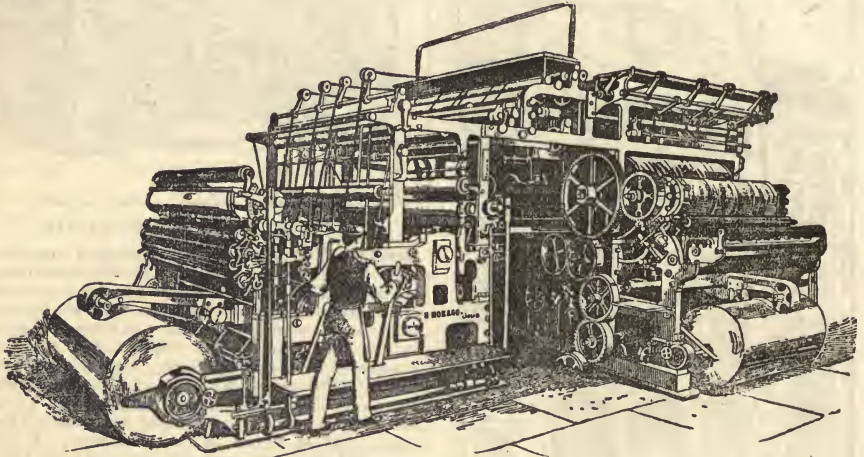
similar to that now in operation in the office of the *Dundee Weekly News*, and which have an aggregate productive capacity of 288,000 eight-page papers an hour. Among other good papers are the *Times*, *Tribune*, *Evening Journal*, *Inter-Ocean*, and *Post*. The following is a specimen of the wages of the compositors in Chicago:—Night work on morning papers 48 cents (2s) per 1000 ems; day work on evening papers 43 cents (1s 9½d) per 1000. The average earnings for six hours' composition are respectively \$4½ (17s) and \$4 (16s). The men working linotypes receive 15 cents (7½d) per 1000 ems, and make about the same wages as the night compositors. The local branch of the International Typographical Union has as many as 1600 members. According to the rules of the Union, one apprentice only is allowed for every ten journeymen, and the term of service is four years. In the weekly paper and job printing establishments the rates paid are much smaller than the above. Single compositors can get good board and lodging for \$7 (£1 8s) a week, and married men can obtain comfortable cottages within accessible distance of their offices for from \$15 (£3) to \$30 (£6) a month, according to size and situation. It will be seen from these latter figures that house accommodation and lodgings in Chicago are, like almost everything else in the marvellous city of the West, somewhat high.

9431 injured while coupling or uncoupling cars, and 598 were killed, and 3191 injured by falling from



DEITZ SOLID DRAW BAR.

trains and engines while in motion. Now, it is sad to think that so many good men are cut down every year while discharging their duties in railway service. The couplings get the blame of causing a great amount of these fatal accidents, and certainly when you look at the construction of the American plant it is not difficult to realise the great amount of danger attached to the work of coupling and uncoupling cars. In the first place there is no side buffer the same as on our plant to protect the men when going in between cars. The only protection is the heads of the drawbars, when they come fairly opposite each other, but should one be a little high, and the other be a little to the low side, then these drawbars sometimes run the risk of passing each other. The consequence is that should a man be in between guiding the two bars together, which often requires to be done by the hand, he often gets squeezed, or his hand bruised. The old style of couplings was one single link and two pins, as I mentioned in a former report. Suppose the link



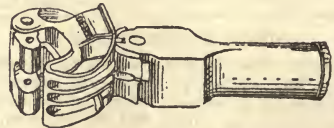
WEEKLY NEWS QUADRUPLE PRESS.

### AN EXTENSIVE DRY GOODS BUSINESS.

Mr Mungo Smith says:—I also visited Marshall, Field, & Co., wholesale dry goods merchants, Fifth Avenue, Chicago. It covers the whole block of ground, and is eight storeys in height. It is constructed of granite and brown stone, and is said to be the finest and largest structure designed for commercial use in America. The floor space occupied for selling goods covers twelve acres. The firm employ about 2500 hands, and their average weekly sales amount to \$25,000,000. I was shown through the place by a Dundee gentleman.

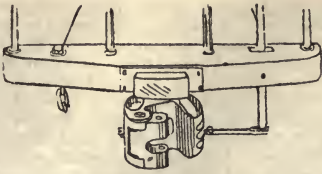
### Railway Car Couplings.

Mr Watson, Dundee, reports:—In railway accidents last year, 2600 employes were killed, and 26,140 injured. Of these, 415 were killed, and



DEITZ JOINTED DRAW BAR.

was fastened into the end of one bar it sometimes was too low to enter into the other. This required to be guided by the hand into its place, and the other pin was put down through. A serious obstacle, which has been a long complaint, was that all railway companies did not adopt the same height of drawbars, but I am glad to say that the United States Government has taken this important subject up, and at an early date all American railway companies will be compelled to have their



DEITZ SOLID DRAW BAR.

drawbars the same height from the rail. This will afford a better opportunity for the adoption of one of the many automatic couplings that have been introduced this short time past. One of those which I saw working, and is worthy of note, was the Deitz-jointed or solid drawbar. These drawbars when pushed together lock into each other. Then when you want to uncouple a handle at the side is pulled which unlocks, and the drawbar opens, allowing the opposite one to get out.



DEITZ FREIGHT DRAWBAR.

**Shunting Operations.**

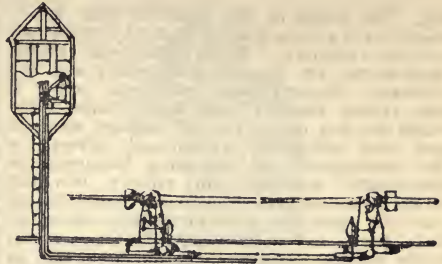
When shunting or marshalling trains each man uncouples and brakes his car back, then couples it to the next one before he leaves it. This process occupies more than double the number of shunters to one engine than at home, and we can make three shunts in the time of our cousins making one.

**Falling from Trains.**

When a freight train starts with a load of forty cars—as I counted some with that number of a train—when full manned, the crew consists of one conductor, who stays in the brake van at the rear, and three or four brakemen. Their place is on the top of the cars. As each car is fitted with a brake, the wheel for working it is placed on the top at one end. Now, these brakemen have to travel along the tops of the cars when running and attend to the brakes. The brakemen are the dirtiest class of railway servants I ever saw; between dust and smoke, one could scarcely tell whether they were black or white men. Now, the reader can imagine within his own mind the situation of these men on a frosty morning and the roofs all covered with ice. No wonder although many of them fall off and get killed, not to speak of the danger of coming in contact with bridges. Of course, the latter are very scarce in America, but where a bridge did span the line I noticed a warner, or, I would call it, a reminder, was erected. This was a spar of wood fastened across the line a little higher than the bridge, and about one hundred yards from it. On this spar ropes about six feet long are attached every few inches, hanging down, and when a train is approaching a bridge these ropes strike the brakeman and remind him of the bridge.

**Railway Crossing Gates.**

This is a specimen of the gates used in and round many streets in Chicago crossing the railways. The old style of them was worked by a hand-lever, but the gate above illustrated is of the new improved style called the Mills pipe gate, opened and closed by the aid of compressed air carried through small



MILLS' RAILROAD GATE.

pipes to make the pressure. There is a small cylinder with a hand-pump to work the gates. The pump is wrought several times until a few pounds of air are shown on the indicator, then a small cock or valve is turned, admitting the air, which lifts the gates perpendicular. They are shut the same way. On the crossbar or gate, as it is called, a ticket is hung printed in big letters "Look out for the cars." This gate is shown in the Exhibition at Chicago.

**SCOTSMEN IN CHICAGO.**

Mr Mungo Smith, Dundee, reports :—I called on Mr William Gardner, president of the North American United Caledonian Association. The objects of this Society are the encouragement of the Scottish Highland costume and games, the cultivation of Scottish music, history, and poetry, the uniting more closely of Scotsmen and those of Scottish descent, and advancing the interests of their countrymen by friendly methods. The club had a Scottish week at the World's Fair, commencing Monday, July 24th, with receptions every morning and entertainments at night, finishing with games at Wentworth Avenue. There was a grand parade of societies. They were escorted by the Royal Scots regiment and Highland cadets of Montreal. Mr Gardner gave me a very hearty welcome, and invited the whole party to meet him.

**FROM CHICAGO TO PITTSBURG.**

**AN EVENTFUL JOURNEY.**

**A BIG RAILWAY SMASH.**

**COLLAPSE OF A TUNNEL.**

**TRESTLE BRIDGE.**

**DELEGATES AT PITTSBURG.**

**HOMESTEAD IRON AND STEEL WORKS.**

**USE OF NATURAL GAS.**

**WAGES OF WORKMEN.**

**THE GREAT STRIKE.**

(From the Dundee Weekly News of October 21.)

The delegates left Chicago, on Friday, July 14, for Pittsburg, travelling from the Wisconsin Central Depot by the Baltimore and Ohio Railroad. For some distance their way lay by the western outskirts of Chicago, and then they were able to form a better idea than ever before of what a huge city it really is. It took a considerable time to reach the open country, which, when struck, was flat, bare, and uninterest-