TTC

RONCESVALLES

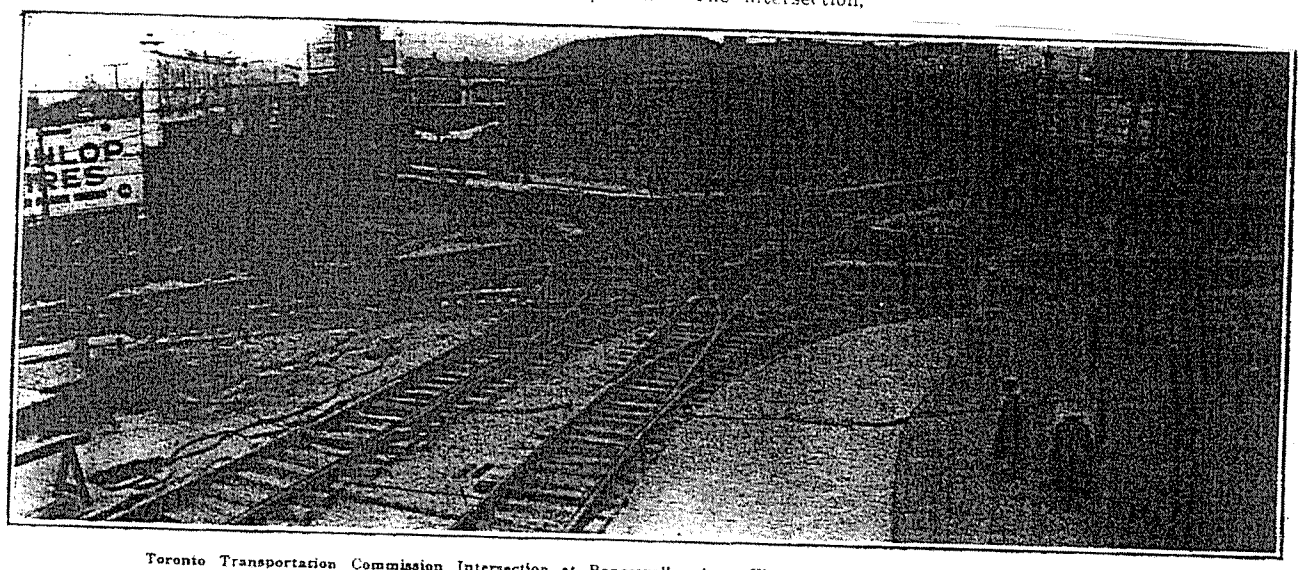
Electric Railway Department

Intersection Installation Toronto Transportation Commission.

The Toronto Transportation Commission has completed the installation of what is said to be the largest street railway intersection ever laid down in Canada. It is at the intersection of Queen St., Roncesvalles Ave., King St and Lake Shore Road, where they come together near the Canadian National Rys. Sunnyside station, in the west end of the city. The accompanying illustration shows the work in progress, the photograph being taken on the completion of the steel laying, but prior to the final lift and tamping and before the paving base and wearing surface were laid.

The installation was accomplished with the same degree of speed and efficiency which marked the work on the Bloor-Bathurst intersection in 1922, described in Canadian Railway and Marine World for Sept. 1922. The preliminary work including the breaking and removal of old steel, which was then taken to the material yard. Following the laying and bolting of the steel, the intersection was lifted to grade and all ties were pneumatically tamped. After tamping, a concrete paving base, in which 201 cu. yards of concrete was used, was poured, and the wearing surface, in which are 45,000 granite blocks, was laid on May 3 and 4, completing the job.

The change in the overhead work did not require the use of other than standard materials, except at one point, where a 3-way crossover was necessary, this being provided by welding an extra part on a standard 2-way fitting. On account of the great weight of the overhead wire structure, additional supporting spans were considered necessary; these were erected 3 ft. above the wiring and the weight of the latter picked up on them at desirable points. The intersection, vised by A. T. Spencer, the Commission's Engineer of Way, and F. W. Drowley, Roadmaster, and the changes in overhead layout were supervised by W. Gibson, Superintendent of Overhead Lines, and E. Hillis, foreman, under the direction of J. F. Neild, Electrical Engineer.



Toronto Transportation Commission Intersection at Roncesvalles Ave., King and Queen Sts., and Lake Shore Road.

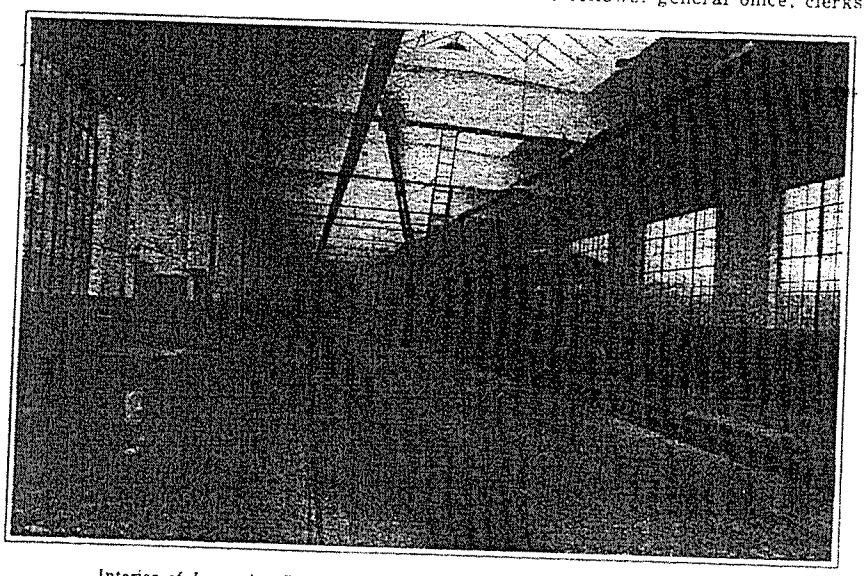
the old concrete wearing surface, was finished, and everything put in readiness to proceed with the changing of the steel on the evening of April 18. Car operation over the intersection was stopped at 8.45 p.m.; the old steel was removed, together with the old ties; the subgrade and foundation being already prepared, the new ties were put in, the new steel laid and bolted up, and the overhead layout changed to conform with the new curves, and cars were again in operation on April 19, at 5.45 a.m., exactly 9 hours after the work had started About 164 men were used on the job. As soon as the final car had gone over the intersection on the evening of April 18, two crane cars and four flat cars were brought up, the old steel was loaded on them and run back about half a block on Roncesvalles Ave. and Queen St. and unloaded, and the old ties were piled up clear of the work. The broken stone foundation was prepared, the new ties, which had been distributed near the scene of work beforehand, were put in, and the new steel, brought up on the crane cars and flat cars, was laid and bolted. The flat cars and crane cars were then run back and loaded with the of solid manganese steel construction, weighs 266,185 lb. complete with bolts, tie rods and other accessories. The complete layout contains 2252 single track feet of steel, 429 joints, 129 cast pieces and 140 pieces of rail. Some of the special ties used were 21 ft. long, some of them being 7 x 12 in. and 308 standard 7 x 9 in. ties were put in. There are 32,026 ft. b.m. of tie timber in the layout, of which the special ties constitute 22,170 ft. The foundation required 777 tons of crushed stone.

The street shown at the bottom of the illustration is the Lake Shore Road; that leading away from the reader and to the left is Roncesvalles Ave.; Queen St. is shown at the left of the illustration and also at the right, farthest from the reader, while King St. is at the right, nearest to the reader. The angle between Roncesvalles Ave. and Queen St. is 90 deg. 58 min.; between King and Queen Sts. 45 deg. 32 min.; between King St. and the Lake Shore Road 107 deg. 30 min.

The intersection was fabricated by Canadian Steel Foundries, Ltd., being bolted together and taken apart at the plant before shipment. The installation was super-

Roncesvalles Car House, Toronto Transportation Commission.

In connection with the Toronto Transportation Commission's letting the contract for the construction of the Roncesvalles car house and office building at the intersection of Queen St., King St., Roncesvalles Ave., and the Lake Shore Road, in southwest Toronto, Canadian Railway and Marine World gave fully in its April, 1923 issue, the reasons which had enabled the Commission to convince the city authorities that it would be desirable and economical to demolish the old house on the same site, which had been used for many years by the Toronto Ry Co., and to replace it by a thoroughly modern structure. The chief reason was that the old house had become inadequate to handle the traffic; and another was that the clearances provided were not sufficient for the Commission's large new cars. In our Sept. 1923 issue, we stalled and the complete plant is operating smoothly.



Interior of Inspection Bay, Roncesvalles Car House, showing pit arrangement.

The office building, 118 x 42 ft, is east of the car house, and has steel frame, brick and tile walls, and slate roof. It is divided into two main portions, viz., the office portion proper, and a part used for a rotunda and men's recreation room. The office portion is divided as follows: general office; clerks' cages; cashier's cage; car starter's office; superintendent's office; stationery room, and lavatory. The men's portion of the building, in addition to the rotunda and recreation room, contains a locker room and large lavatory and wash room. The office portion of the building has hardwood floors, and the walls have a very fine enamel finish. The lavatories and washrooms are finished in tile and marble, and present a very sanitary and being for car storage, inspection, washing, etc., and the other for repairs. The repair bay is offset to the north of the inspection bays, and to the south end of the repair track portion of this bay are the boiler room, valve room, coal storage space, wheel and axle storage, room for petty stores, lunch room, lavatory and locker room. The exact arrangement of these was shown in the layout plan accompanying the article in our Sept. 1923 issue.

The house and yard are operated principally from Queen St., and the track layout is arranged so that cars proceeding in any direction may head into the yard, pick up or set off a trailer, and proceed, with minimum delay. In attaching or detaching trailers, small electric locomotives, equipped with 2 motors, are used. The track mileage in the layout is 3.373, and the yard tracks provide capacity for 138 of the Commission's largest cars.

The repair bay is equipped with the latest devices for facilitating car repairs, such as stationary and movable cranes, pit wheel grinders, etc., and the pit structure in all three bays, as shown in the accompanying interior view, consisting of a continuous pit right across the bay, with the best of lighting and drainage, ensures that work will be carried on under the most favorable conditions. The fire protective system for the house and storage yard is a feature, and in addition to a sprinkler system in the house, protection is afforded by hydrants at strategic points throughout the yard, and by monitor towers, from which streams of water may be directed in any horizontal direction and at any desired angle with the vertical.

The general contractors for the buildings were Sullivan and Fried, Toronto, and the track work in the yard, house and approaches was done by the Commission's way department forces.

Roncesvalles Ave., and the Lake Shore Road, in southwest Toronto, Canadian Railway and Marine World gave fully in its April, 1923 issue, the reasons which had enabled the Commission to convince the city authorities that it would be desirable and economical to demolish the old house on the same site, which had been used for many years by the Toronto Ry Co., and to replace it by a thoroughly modern structure. The chief reason was that the old house had become inadequate to handle the traffic; and another was that the clearances provided were not sufficient for the Commission's large new cars. In our Sept. 1923 issue, we

Interior of Inspection Bay, Roncesvalles Car House, showing pit arrangement.

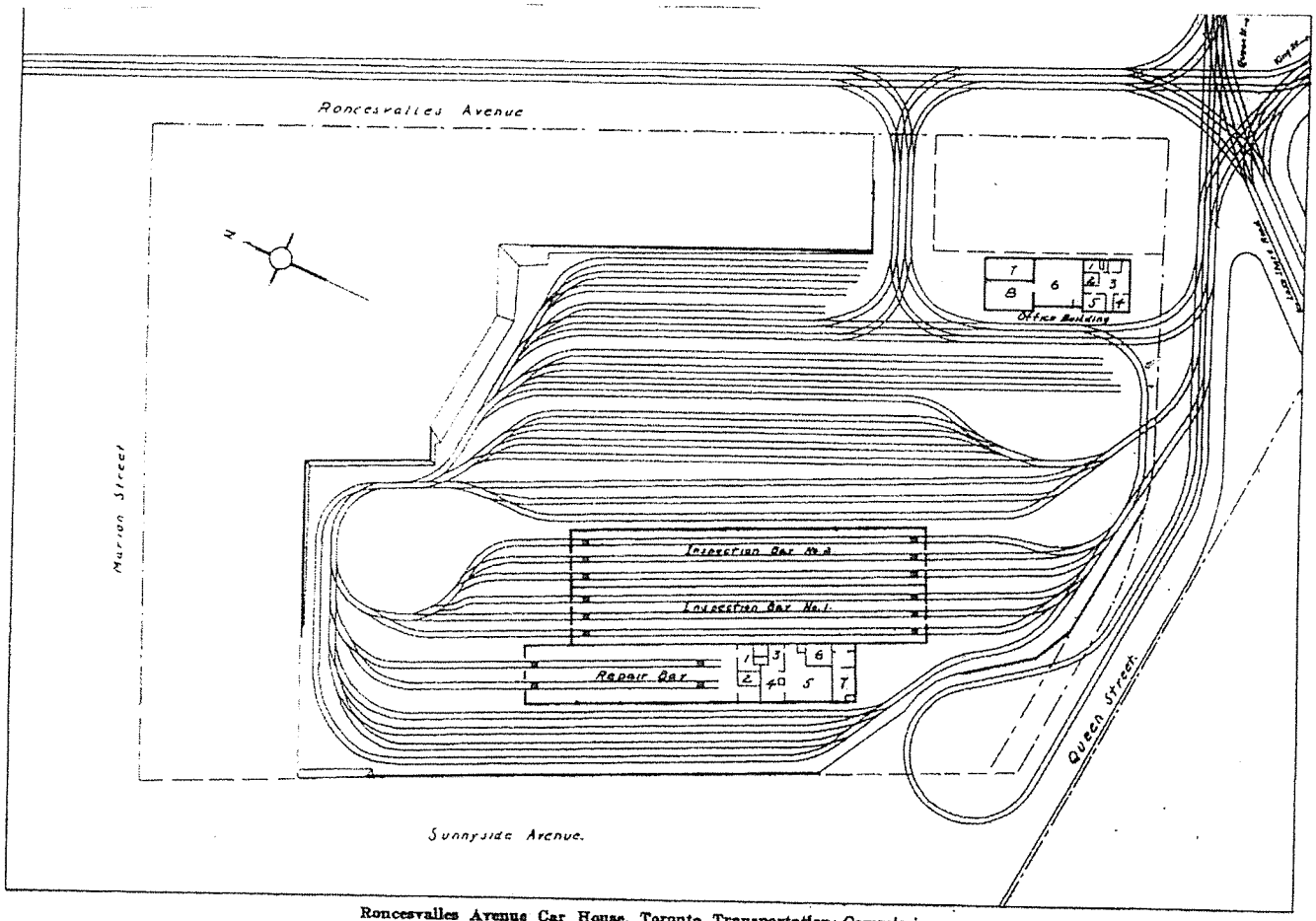
roof. It is divided into two main portions, viz., the office portion proper, and a part used for a rotunda and men's recreation room. The office portion is divided as follows: general office; clerks' cages; cashier's cage; car starter's office; superintendent's office; stationery room, and lavatory. The men's portion of the building, in addition to the rotunda and recreation room, contains a locker room and large lavatory and wash room. The office portion of the building has hardwood floors, and the walls have a very fine enamel finish. The lavatories and washrooms are finished in tile and marble, and present a very sanitary and

storage space, wheel and axle storage, room for petty stores, lunch room, lavatory and locker room. The exact arrangement of these was shown in the layout plan accompanying the article in our Sept. 1923 issue.

The house and yard are operated principally from Queen St., and the track layout is arranged so that cars proceeding in any direction may head into the yard, pick up or set off a trailer, and proceed, with minimum delay. In attaching or detaching trailers, small electric locomotives, equipped with 2 motors, are used. The track mileage in the layout is 3.373, and the yard tracks provide capacity for 138 of the Commission's largest cars.

The repair bay is equipped with the latest devices for facilitating car repairs, such as stationary and movable cranes, pit wheel grinders, etc., and the pit structure in all three bays, as shown in the accompanying interior view, consisting of a continuous pit right across the bay, with the best of lighting and drainage, ensures that work will be carried on under the most favorable conditions. The fire protective system for the house and storage yard is a feature, and in addition to a sprinkler system in the house, protection is afforded by hydrants at strategic points throughout the yard, and by monitor towers, from which streams of water may be directed in any horizontal direction and at any desired angle with the vertical.

The general contractors for the buildings were Sullivan and Fried, Toronto, and the track work in the yard, house and approaches was done by the Commission's way department forces.



Roncesvalles Avenue Car House, Toronto Transportation Commission.

ing stock than used formerly, the old car house proved entirely inadequate to meet the new conditions. The old house, of brick construction, accommodated only 34 of the old type cars, and the yard trackage was also of limited capacity, and the new cars, full particulars of which have been given in these columns as they were ordered or received, are too large for the old clearances. On account of these clearance limitations, and the necessity for greater car storage and terminal accommodation, the Commission was able to demonstrate to the city authorities the necessity for a new house, and the passing of a bylaw providing $800,000 for its construction and for the expropriation of necessary lands, followed.

The original car house was operated by expropriation proceedings.

The accompanying plan shows the layout of the new house, office building and yard. The main entrance to the house and yard will be from Queen St., with an auxiliary entrance from Roncesvalles Ave., and the track layout, like that at the Eglinton house, built by the Commission last year at Yonge St. and Eglinton Ave., will provide the greatest facility possible in operation, not only for getting cars on to and off the storage, inspection, and repair tracks, but also in getting trailers attached to cars which have been operating without them, but to which it is desired to attach them. An inspection of the arrangement of the loops round the office building and the leads to the main lines on Queen St. and Roncesvalles Ave. with their relation to sec. 398; special work at the main line connections will be 122 and 140 lb. girder guard rail of A.E.R.E.A. section; track in the car house will be 93 lb. T rail, Lorain sec. 507; in the storage tracks 85 lb. C.P.R. section rail will be used, and in the trailer storage and other yard tracks 60 lb. A.S.C.E. section rail. The yard tracks will hold 138 large cars.

The car house building, so far as construction materials are concerned, will be similar to the Eglinton car house, which was described fully in Canadian Railway and Marine World for Nov. 1922, pg. 574, with the exception that the branch ducts for heat transmission will be of concrete, instead of tile. It will be 285 ft. long, and each of the 3 bays will be 44½ ft. wide. Two of the bays, as shown in the plan, will be for inspection

Roncesvalles Car House, Etc., from South Side of Property. Car House at left and Office Building at right.

gave constructional and other details of the new house and office building, and a layout plan showing the trackage arrangement. Building of the car house and office proceeded rapidly, the office building being occupied by the Roncesvalles Division staff on Oct. 20, 1923, and the new house being placed in operation Nov. 3, 1923. At the time of writing (Jan. 10) all facilities have been in-

clean appearance. The men's portion of the building has mastic flooring and the walls are finished in plaster. The building is steam heated, the boiler room being in the basement under the office portion of the building.

The carhouse building, of which interior and exterior views are given herewith, is 285 ft. long, and consists of 3 bays, each 44½ ft. wide, two of these

Levis County Ry. electric car service was held up for the entire day on Jan. 11. During the preceding night a snowdrift about 30 ft. high accumulated in front of the car house, and just as this had been cleared away sufficiently to enable cars to get in and out, there was a slide of the snow round about undoing all that had been done in the way of snow removal.