width, the ground between these trenches being left for removal by end excavation. These retaining walls, and indeed all the details of the works, are admirably proportioned to the duty they have to perform, and by their construction very great resisting power is obtained with a comparatively small expenditure of material. The excellence of the design is also well matched by the quality of the workmanship, the whole of the brickwork which has been carried out in connexion with the works of the Metropolitan District Railway having been executed in a manner which reflects the greatest credit upon the contractors.

The 160 yards of open cutting are succeeded by about 100 ft. of the ordinary brickwork-covered way, this extending to the western side of the new street running from the northern side of Victoria-street. At this point the line passes under the brewery erected by Messrs. Elliot, Watney, and Co.; and as the weight carried above the line is very great, a special system of construction has been adopted for the covering.

In the first place, the side walls are increased to five bricks in thickness, and are backed with 12 in. of concrete; and for a length of 9 ft. in the centre and at each end of that portion of the line beneath the site of the brewery the arched brick covering has been made nine instead of five rings in thickness, these thickened portions being so situated that they come under the front, centre, and back walls of the building. Between the nine-rings arches the railway is spanned by twelve massive wrought-iron box girders, each calculated to carry a load of 200 tons, and upon these rests the columns supporting the immense vats with which the brewery is furnished. Between the girders the line is roofed by the ordinary transverse brick-arched covering, this covering being, as usual, five rings thick; and the girders themselves are also covered over by longitudinal arches, having apertures in them, through which the columns already mentioned pass. At the point that we have been describing the foundations of the side walls of the railway are situated 15 ft. below those of some very high houses close to which the line passes, and the works had therefore to be executed with the greatest possible care. The precautions taken, however, were so effectual that not the slightest damage was done to the adjoining structures.

Past the site of the brewery the ordinary brickwork-covered way recommences, and as the railway approaches the line of Victoria-street, it passes for some distance under the space upon which the houses forming the northern side of the street at this point have been built, and here the covered way was constructed of more than the usual strength, in order to carry the extra load which now comes upon it. As the railway approaches Victoria-street at an acute angle, the side walls of the houses cross the line on the skew, and the strengthening of the arched covering has accordingly been carried out as follows: The houses to be supported have each a frontage of 25 ft. 6 in., and the centre lines of the side walls have been set out at that distance apart. For a distance of 7 ft. 6 in. on each side of each of the points at which these lines intersect the centre line of the railway the brick-arched covering has been constructed ten rings in thickness, whilst between the portions so thickened the thickness has been made eight rings. From this description it will be seen that this part of the brickwork-covered way consists of alternate 15 ft. and 12 ft. lengths, ten rings and eight rings thick respectively, while the side walls of the houses bear upon the ten-ring lengths exclusively. At each end of each of the 15 ft. lengths there is also formed a counterfort 2 ft. thick, these counterforts extending to the outside line of the side walls, and their tops being made to the same slope as the spandril filling.

Close to the junction of Vauxhall-road and Victoria-street the Metropolitan District Railway crosses under the latter street, and also under the King's Scholars' Pond sewer; and this point is, as we have already stated, the lowest on the line of the railway, the rail level being here 21 ft. 9 in. below Trinity high water, or 9 ft. 3 in. below Ordnance datum. This sewer, like the Fleet, the Effra, and others, was originally an open tidal stream, flowing from Hampstead into the Thames.

Bricked around, it has become at its outlet the largest sewer in London, and until its sewage was intercepted by the Dover-street branch of the Piccadilly branch of the Middle-level Sewer, it drained an extensive district between Hampstead and the river. With the construction of the Low-level Sewer its use became restricted to the discharge of storm water collected in it throughout its entire length. As the invert of this sewer is about 8 ft. below the level of Trinity high water, it is provided at its outfall with flood-gates, which are closed while the tide is higher than the invert of the sewer, thus turning it into a reservoir for several hours during each day.

The Metropolitan District Railway passes beneath this sewer at the west end of Victoria-street, and close to the Victoria Station. At this point the sewer is 14 ft. across in the widest part, and 11 ft. 6 in. high, of a section nearly identical with that shown in Fig. 1, Plate XXXI., the only difference being that the height at the point of crossing is reduced 6 in., as it was deemed necessary by the Metropolitan Board of Works to have an independent brick relieving arch clear of the iron plates, and the crown of the sewer was so near the surface of the ground that there was not room to construct this without reducing the height.

The entire weight of the iron tube, and the sewage