

The layers spread each day over a diameter of 125 feet were about as follows:—125 yards of quarry refuse, 40 yards of good gravel, 50 yards of works' ashes. Towards the end of the work the ashes were exhausted. Near by was a bank of 500 yards of sand, and from this was taken what was needed to make the top dressing under the concrete, spreading on the stone, washing it in and carefully rolling. Toward the end the roller worked night and day.

Near the edge where the wall of concrete was laid, there was a space that could not be rolled, but had to be filled and tamped to a depth of 4 feet. In order to make sure that this portion was as solid as the centre, a round tapering bar 5 feet long was driven into the

cement, $2\frac{1}{2}$ of sand and 5 of stone. The size of stone was $1\frac{1}{4}$ inch and smaller. A great circle of concrete 4 feet wide and 1 foot thick was laid 5 feet below the finished top. On this circle was laid a ring 3 feet wide at the bottom, tapering to 2 feet 9 inches wide at the top, and 3 feet high; resting on the ring was laid, over the whole diameter of 118 feet, a layer 1 foot thick, trued to perfect level and plastered smooth. This work was accomplished in eighteen days, and in a most satisfactory manner, a local engineer taking the job at 4.90 dols. per cubic yard laid. As soon as the foundation was ready the iron men were on the ground, and the holder was erected complete in a week less than the specified time of four months.



PAIR OF SEMI-DETACHED HOUSES ON A NARROW SITE, TORONTO.
F. F. SAUNDERS, ARCHITECT.

main foundation several times. Seventy blows on the average were required to drive it 4.5 feet, and the outside ring was tamped until it equalled the above test.

The amount of material removed approximated 2,900 yards. The work of excavating and filling ready to begin concreting took twenty-two days, and six days more were required to fill in around the great circle after the concrete wall was 4 feet high. This, however, did not delay the concreters in their work. The filling was as per the following amounts:—Quarry stone refuse, 1,780 yards; gravel, 680 yards; sand, 310 yards; ashes, 1,100 yards; total, 3,870 yards.

On this foundation was laid 630 yards of Portland ment concrete, in the following proportions:—1 of

In order to prevent the action of the brook eating away the bank near the holder, a stone wall 7 feet high was built to the level of the holder foundation and 400 feet long, protecting also a new purifier building near the brook. City water was used to fill the tank, as the brook water contained acids. It took three and a half days to fill the tank, which holds a little over 2,000,000 gallons. Before the water was put in careful levels were taken on eight points of the foundations. After filling levels were again taken, and there was not the slightest settlement.

The Montreal Silicate Brick Company, has been incorporated, with a capital of \$100,000.