XVII.—*Some Accounts of Borings for Water in London and its vicinity.*
By Mr. JOHN DONKIN, M.Inst.C.E.

PARTICULARS OF A WELL SUNK AT THE EXCISE OFFICE, IN BROAD STREET,
 LONDON.

In the first place, after excavating the upper stratum of gravel and loose soil, four cast-iron curbs were sunk, each 6 feet long; the lowest of these entered the clay about 3 feet; the digging was then continued through the clay to the depth of 140 feet, and a curb of brickwork within the iron curb was sunk the whole depth in the ordinary way, the iron curb serving merely to support the upper stratum, and to prevent the land water getting into the well. Boring was then resorted to, to the depth of about 20 feet, when the water appeared, and rose to within 60 feet of the top of the well; a copper pipe was then driven through the last-mentioned 20 feet, to keep the passage open for the supply.

WELLS SUNK AT MESSRS. BRANDRAM'S VITRIOL AND WHITE LEAD WORKS,
 LOWER ROAD, DEPTFORD.

The wood and brick curbing was sunk barely 30 feet; the bricks were laid in Roman cement to keep out the water from the land springs; the well was then bored to the depth of about 180 feet into a bed of chalk, from which the soft water rises and flows to within 9 feet of the top of the well, through wrought iron tubes riveted together. The strata are chiefly composed of yellow and green sand and gravel, like those found at the tunnel under the Thames.

ACCOUNT OF BORINGS MADE NEAR LONDON, WHERE THE WATER RISES ABOVE
 THE SURFACE OF THE LAND.

In Mr. Wilmot's garden at Isleworth, a boring was executed to the depth of 327 feet. The blue clay was found to exist from about 24 feet below the

ground level, with little variation of colour, to the depth of 240 feet: it is then of a lightish red, and afterwards of a darker colour very much variegated. At the depth of 308 feet it is blackish, and at 310 feet very black; at 311 feet it becomes yellow for some depth; then light green, followed by dark green, out of which the water rises, being a stratum of about 10 feet thick.

All the specimens, with the exception of the yellow, appeared to be clay; the yellow had a sandy appearance. The cast-iron pipe is sunk 327 feet, and is $2\frac{1}{4}$ inches diameter. The water rises about 10 feet above the ground, and the well supplies eight gallons per minute. The land-water here stands about 16 feet below the ground.

Lord Cassilis* has also had a boring executed in his grounds at Isleworth, to the depth of 290 feet: the quantity it supplies is about 30 gallons per minute, and its water rises about 30 feet above the level of the surface.

* Now Marquess of Ailsa.