

Document 30–III (Online Companion)

Cholera Inquiry Committee: “Mr. York’s Report”¹

I have altered the following transcription to reflect modern rules of capitalization and syntax.

[170] The cholera inquiry committee appointed by St. James’s Vestry [has] been engaged [for] several months in investigating any causes which might have existed in the autumn of 1854 to induce the propagation of cholera, among which was the possibility of contamination of well water from defective house drainage. [I] was instructed to adopt the best measures for inquiring into and reporting upon the condition of the drainage at the house No. 40 Broad Street, it being immediately adjoining the parish pump in that street. [An] examination [was] made at the close of April 1855. The following were found to be the results of his investigations:—

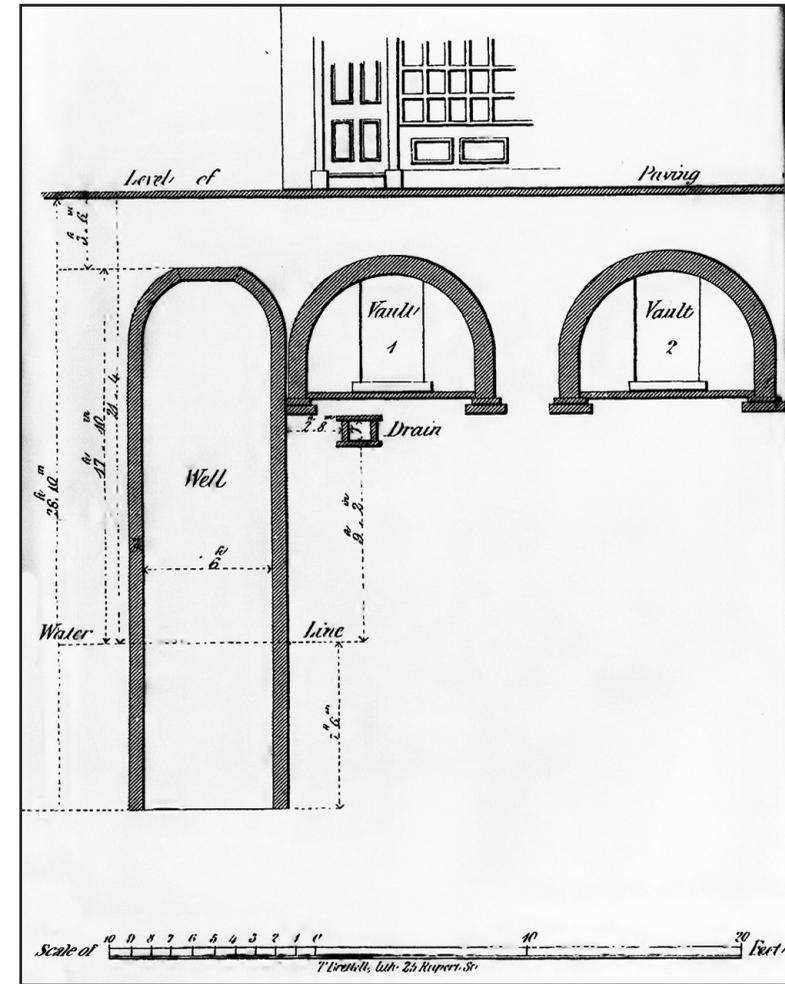
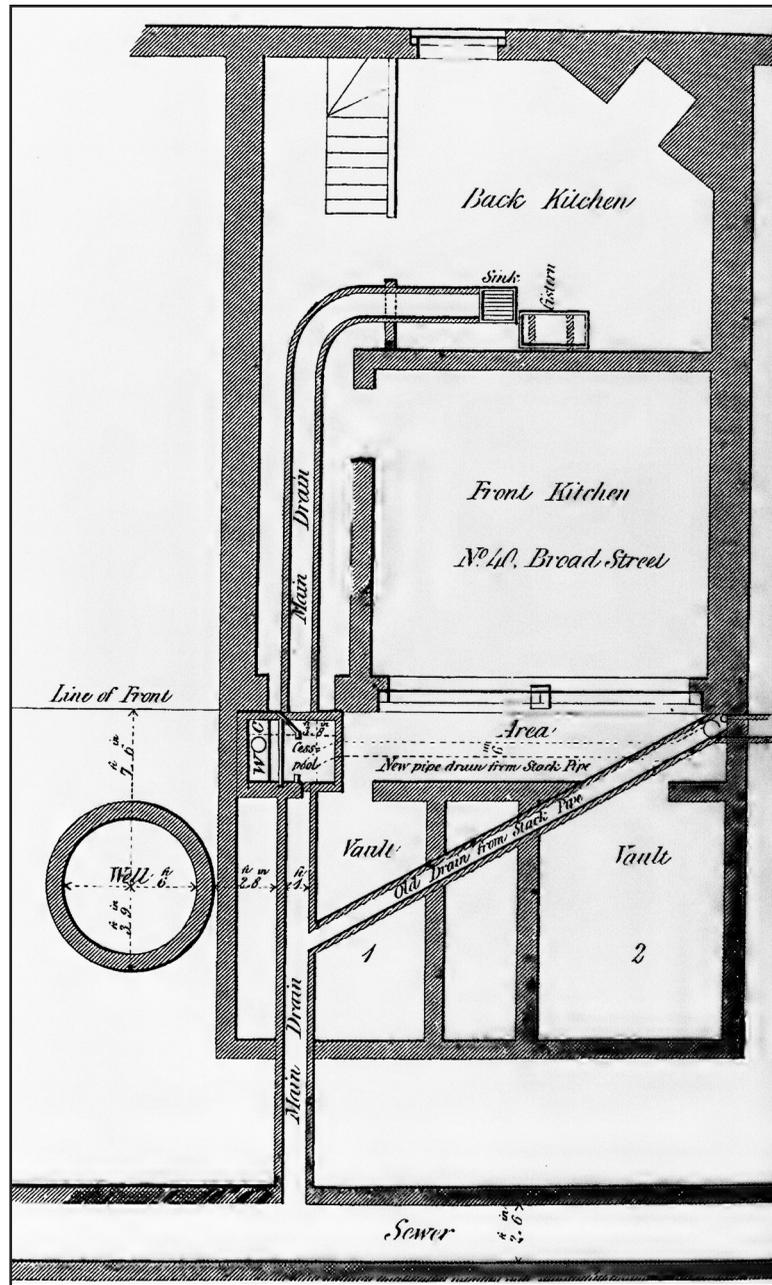
The main drain of the house was opened in the front vault under the street. [It] was constructed on the old-fashioned plan of a flat bottom, 12 inches wide, with brick sides rising about twelve inches high and covered with old stone. As this drain had but a small fall, or inclination, outwards to the main sewer, the bottom was covered with an accumulation of **soil** deposit about two inches thick. Upon clearing this soil away, [170/171] the mortar joints of the old stone bottom were found to be perished, as was also all the jointing of the brick sides. [Consequently,] the brick work was the condition of a sieve through which the house drainage water must have percolated for a considerable period. Into this drain in the middle of the vault, an intersecting smaller drain ran from the front **stack pipe** at the southwest angle of the front area, bringing the rain water from off the roof of the house and also forming a communication with the drains of the adjoining house westward (No. 39.)

soil: Solid, excrementitious matter.

stack pipe: Downspout from the eaves troughs.

Upon opening back the main drain, a cesspool intended for a trap, but misconstructed, was found in the area. [It was] 3 ft. 8 in. long, by 2 ft. 6 in. wide, and 3 ft. deep, and upon, and over a part of this cesspool a common, open privy (without water supply) for the use of the house was erected. The cesspool [was] fully charged with soil. This privy is formed across the east end of the area. Upon removing the soil, the brickwork of the cesspool was found to be in the same decayed condition as the drain, and which may be better comprehended by stating that the bricks were easily lifted from their beds without any force. Any fluid could readily pass through the work or (as was the case when first opened) over the top course of bricks of the

¹Cholera Inquiry Committee, *Report on the Cholera Outbreak in the Parish of St. James, Westminster, during the Autumn of 1854* (London: Churchill, 1855), 170–74; unedited transcription and PDF of original are available at <<http://johnsnow.matrix.msu.edu/work.php?id=15-78-AA>>.



[cesspool] into the earth or made ground immediately under and adjoining the end wall eastward. This surface drainage [was] caused by the accumulation of soil [171/172] in the misconstruct[ed] cesspool. Intended to prevent effluvia and vermin coming into the house from the main sewer in the street, but which, in fact, it facilitated. This point is worthy of notice. A reference to the accompanying plan prepared by me will more fully shew its misapplication, as well as demonstrate the fatal effect it would have in driving or forcing any deleterious fluid matter into the ground and the [adjoining] parish well by preventing its running direct into the current of the house drain.

The stone placed in and across this cesspool dipped about three inches into the fluid therein contained. As more solid matter [was] deposited in it, the fluid [was] reduced in proportion. When opened on 23 April 1855, it had reached [such a] state of solidity that hardly any passage for

its egress from it was left. It had, in consequence, commenced to overflow between the back of it and the end wall of the area, [as well as] through any other crevice at the sides of the covering, which was composed of saturated rotten boards. The condition of this cesspool covering, together with the solid matter at the bottom, led me to believe that it must have been in this state for many months. It could not possibly have gone on much longer without total stoppage. All this old drainage has been removed. The cesspool [was] destroyed. New, tubular pipe drains with [172/173] cemented joints and a **syphon trapped** [water] closet have been substituted. The drain inside of the house which leads from the front area to the back kitchen has not been disturbed. It appears to be used only for the carrying off of waste water from a sink near the cistern. Should the street pump continue to be used hereafter, it will be necessary to have this drain reconstructed.

syphon trapped:

Siphon, "a pipe or tube, . . . bent so that one leg is longer than the other" (*OED*).

In connection with the question of how far any communication can exist, and has existed, between this defective drainage and the adjoining parish well which supplies the Broad Street pump, a reference to the accompanying plan and section of the well and drainage of the house will, I conceive, set the matter at rest.

From the bottom of the house drain down to the water line in the well, a vertical depth of 9 feet 2 inches exists. From the side of the drain horizontally to the outer side of the brickwork of the well, there is only a space of 2 feet 8 inches; the side wall of the vault adjoining the cesspool actually abuts upon it. Therefore, from the charged condition of the cesspool, the defective state of its brickwork and also that of the drain, no doubt remains upon my mind that constant percolation for a considerable period had been conveying fluid matter from the drains into the well. But lest any doubt should arise upon this subject hereafter, I had two spaces of the brick **steining**, two feet square each, [173/174] taken out of the inside of the well—the first, thirteen feet deep from the level of the street paving; the second, eighteen feet deep; and a third was afterwards opened, still lower. The washed appearances of the ground and gravel fully corroborated [my] assumption. In addition, the ground was dug out between the cesspool and the well to three feet below the bottom of the former. Its black, saturated, swampy condition clearly demonstrated the fact, as did the small, furrowed appearance of the underlying gravel observed from the inside of the well. The fine sand had been washed away during the process of filtration.

steining: Steening, "the lining of a well or other excavation" (*OED*).

In conclusion, I have to state that nearly the same condition was observed in the ground between the street sewer and the end wall of the vault through which the main drain passes outwards. I presume, therefore, it is manifest to all that the owner and the occupier of this house had neglected to improve its drainage by not availing themselves of the facilities afforded them for doing so by the construction and use of the new sewer

carried through the western half of Broad Street in the years 1851–52.

1 May 1855.

Jeht. [Jehoshaphat] York, Secretary.
14 Marshall Street.

14 Marshall Street:
St. James Paving Office,
where J. York was clerk.