#### **Subterranean survey of the Westminster District.**

#### **Contributors**

London (England). Metropolitan Commission of Sewers. Smith, Joseph (Surveyor) Austin, Henry, 1809 or 1810-1861.

#### **Publication/Creation**

[London]: Reynell and Weight ... Haymarket, [1849]

#### **Persistent URL**

https://wellcomecollection.org/works/us625umm

#### License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



# SUBTERRANEAN SURVEY

OF THE

# Westminster District.

GENTLEMEN,

We have to report that the Subterranean Survey of the close parts of the Westminster District was completed about the middle of January this year.

The total length of work in this district amounts to 185 miles completed on the ground; the sewers having been surveyed and levelled, the deposit and smell described, and special reports made out for those parts that were considered dangerous to the public.

The total cost of this portion of the work has amounted to about 950%.

The registering and plotting of the work of this district has progressed as far as the present force employed would admit, at an expense of about 120*l*., but an additional outlay of about 300*l*. will be required to complete the office work of this District.

Awaiting the sheets of the Ordnance Survey, the sewers have not yet been laid down in plan or longitudinal section, and only half of the transverse sections with inclinations and descriptions are yet completed, therefore the present office force will require to be increased; bringing the total expenditure of the Subterranean Survey to about 50l. per week, instead of the present limit of 40l.

By reference to Cruchley's Map, the sewers which have been surveyed will

be readily distinguished.

A Pictorial Map is also presented, representing the sewers under three classes, namely: those which are old and decayed, those which are in so rotten and dilapidated a condition as to be in danger of falling, and those which have a very bad or horrible smell; but it is not always that the worst smell accompanies the deepest deposit. The detritus from the macadamised roads frequently forms a kind of grouting in the sewers so hard that it cannot be removed without hand labour. One of the sewers in Whitehall, and another in Spring Gardens, have from three to four feet of this sort of deposit; and another in Eaton Square was found

filled up within a few inches of the soffit, but it is supposed that the scavengers emptied the road sweepings down the gully-grate in this instance.

From the progress the subterranean parties are now making, the whole of the town area will be completed about the end of this year. They are now five parties in strength, and will be able to keep much in advance of the increased office force above recommended.

The tie levelling above ground (already reported) is now completed, at an expense of about 1201.

We beg to append a description of the most remarkable features which have been met with in this portion of the Subterranean Survey.

From this description, and an examination of the accompanying illustrated Map of the sewers, and the weekly progress reports, it will be found, as a general conclusion, that much of the sewerage of the City of Westminster itself is in a rotten state, and contains a large amount of foul deposit; that in the more modern district of Belgrave and Eaton Squares, although the brick-work of the sewers is generally sound and good, they contain several faulty places, and abound with noxious matter, in many cases stopping up the house-drains and smelling horribly; that in the district of Grosvenor, Hanover, and Berkeley Squares, as a rule, considerable deposit is found in the sewers, emitting much effluvia; that the same remark may be made of the sewers in the neighbourhood of Clare Market, Covent Garden, Soho Square, and Fitzroy Square; that much of the work north of Oxford Street, about Cavendish, Bryanstone, Manchester, and Portman Squares, is in such a state of rottennes and decay, there is no security for its standing from day to day: that there is a large amount of the most loathsome deposit in these sewers, but the act of flushing might bring some of them down altogether; that even throughout the New Paddington district, the neighbourhood of Hyde Park Gardens, and the costly squares and streets adjacent, the sewers abound with the foulest deposit, from which the most disgusting effluvium arises; and that amidst the whole of the Westminster District of Sewers the only little spot which can be mentioned as being in at all a satisfactory state is the immediate neighbourhood of Seven Dials.

GENTLEMEN,

Your most obedient humble Servants,

HENRY AUSTIN, CONSULTING ENGINEER.
JOSEPH SMITH, Assistant Surveyor.

### DESCRIPTIVE REPORT

ON THE

#### STATE OF THE SEWERS

IN THE

# Westminster District:

Comprising the Ranelagh & Bayswater, Western, and Eastern Divisions; with the Dates of Examination, Names of Streets, and Observations thereon.

#### RANELACH AND BAYSWATER DIVISION.

Date.	Names of Streets.	Observations.
1848. June 28.	GROSVENOR PLACE	At 100 feet above the junction with Chester Street there is a breach in the Sewer of 8 feet long, by 1 foot 6 inches wide. This is very dangerous for so great a thoroughfare.
June 28.	EATON SQUARE, North	At 160 feet east from the side entrance there is a part of the invert put in "stretchers," instead of "headers." The narrow wheels of the flushers' trucks have worn the bricks, as to make them loose; so that they may be taken out by the hand.
August 1.	BELGRAVE SQUARE	These sewers are in a state far from satisfactory, having about a foot of solid deposit.
August 1.	LOWNDES PLACE	This sewer has from one to two feet of deposit. The smell is most horrible. The house-drains are nearly stopped.
August 1.	Roberts Mews	This sewer has from one to two feet of deposit (the smell is most horrible), and the house-drains nearly stopped.
August 1.	Снезнам Mews	This sewer is in a similar condition to the above.
August 1.	Belgrave Mews	This sewer has from one to two feet of de- posit (the smell is most horrible), and the house- drains nearly stopped.
August 1.	KNIGHTSBRIDGE GREEN and BROMPTON ROAD	At the junction of these sewers the brick- work is in a dangerous state, and appears never to have been completed. From this man-hole to the next, in the direction of Sloane street, the deposit is so great, and the stench so strong, that one of the men came out of it in a fainting state.
August 8.	CHAPEL PLACE	This sewer has a deposit of from 10 to 16 inches deep, with a very bad smell.
August 8.	CHAPEL STREET, Belgrave Square.	The brick-work in this sewer is very defective and dilapidated. Place-bricks, and bad mortar, were used in its construction.

# RANELACH AND BAYSWATER DIVISION-(Continued).

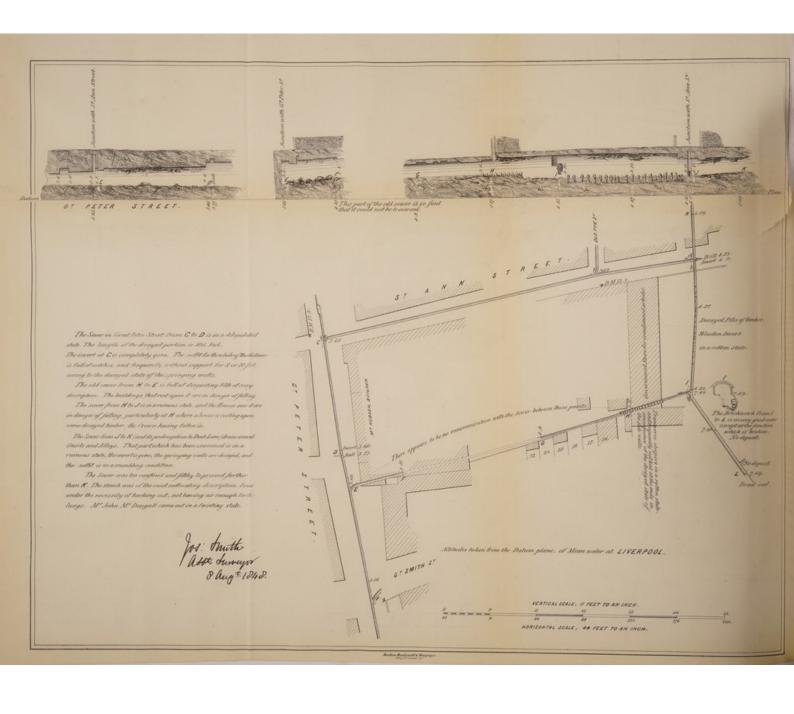
Date.	Names of Streets.		Observations,
1848. August 8.	GROSVENOR PLACE		This sewer has from 9 to 14 inches of deposit.  A portion of the arch has been at some time removed for the purpose of casting, and has been badly restored; being near the surface, it is dangerous.
Sept. 2.	Blacklands Sewer, Chelsea		Is in a horrible condition. It is partly open, and forms the receptacle for all kinds of filth and dead animals. The invert is of the most irregular form.
Sept. 2.	CUMBERLAND STREET		Joins Blacklands one foot below the invert. The sewer is 5 feet high, but has an outlet into Blacklands sewer of only 1 foot 8 inches by 1 foot 4 inches. The side walls have been pressed inwards. The sewer is egg-shaped, with the broad end down.
Sept. 2.	QUEEN STREET, Chelsea		This sewer must be cleansed, or it will soon be choked altogether with deposit.
Sept. 2.	NORTH STREET		
Sept. 2.	NORTH TERRACE		Each of these sewers has one foot of deposit.
Sept. 2.	PELHAM ROAD, towards Cromwell Lane, Bromp- ton		
Sept. 2.	Esher Street, Penitentiary		This sewer has two feet of deposit.
Oct. 20.	Adam Street, West, Adam Mews, & Great Cumberland Mews.		These sewers are all but tumbling in. The arch is very dangerous. Two branch sewers (right and left) have partly fallen in. The bricks can frequently be pulled out by the hand. The sewer sometimes resting on a single brick; is dangerous for the workmen.
Dec. 2.	PRINCESS STREET, St John's Wood		At the junction with Salisbury street; the bottom is torn up by the water for 3½ feet each way, and the arches are crushed.
Nov. 17.	Broadley Terrace	-	The junction is left unfinished; the arch of the main sewer being unsupported.
Nov. 25.	CHAPEL STREET, Lisson Grove		Some parts are in danger of falling. There are three cesspools on one side, which are full, and have forced in the side wall of the sewer.
Nov. 25.	LISSON STREET, LISSON Grove		The arch is falling down for the distance of 100 feet.
Nov. 25.	Lisson Grove, North		Requires repair. The arch in one place has fallen down. The side wall for 30 feet is forced in about eight inches.
Nov. 25.	WILLIAM STREET		The invert of this sewer is washed into holes; a new invert is required.

# RANELACH AND BAYSWATER DIVISION-(Continued).

Date.	Names of Streets.		Observations.
1848.			The state of the s
Dec. 2.	Upper Carlisle Street, Carlisle Place, and Nightingale Street		The side walls of these sewers are all manner of shapes, and in danger of falling; struts thrown across will prevent them from going further.
Dec. 9.	Norton's Wharf, Pad- dington		The sewer passing under the canal basin near Bridge Place is faulty, the arch having settled down, and a stake being driven through. This may stand for many years, although it has to bear up heavy loads of stone from the wharf. That part of the sewer under the canal is in a decayed state. The branch southward is in a crumbling and filthy condition.
Dec. 23.	ABBEY ROAD, Portland Town		This sewer is completely crushed and distorted, having above 200 struts thrown across between long planks, and when these become rotten the sewer will collapse. The part affected this way extends for about 100 feet.
Sept. 22.	Ranelagh Sewer	Maria Maria Maria Maria	Sound and good, with the following exceptions:—Invert near the outlet is forcing up, in places, for the distance of about 1,000 feet, and should be attended to for the prevention of further injury. A step of one foot against the stream under the Knightsbridge Road. The invert through Hyde Park is faulty for 3,784 feet.
Sept. 22.	EATON PLACE	alla	The invertof this sewer, at its junction with the Ranelagh, is broken up by the flushers' waggons, and should be repaired to prevent further injury.
Sept. 22.	Queen's Row West, Chelsea	and a	A leakage from the water-pipes on the bridge, to the injury of the material of the sewer. The pipes belong to the Chelsea Water Works Company.
Sept. 19.	GROSVENOR PLACE	and the second	From Chapel Street to the front of St George's Hospital—a distance of about 800 feet—is in a most deplorable state; the invert is sunk, and the walls are crushed in, the arch often without support. At the end near the Hospital it is liable to fall in momentarily.

### WESTERN DIVISION.

Date.	Names of Streets.	Observations.
1848. June 28.	RANELAGH STREET	A piece of the invert washed away at 330 feet from the manhole at the junction of Belgrave Street. Another piece of about 20 feet long (at the dead end near Arabella Row) requires immediate attention, the springing wall on the south side has given way and the arch flattened, thus—
		The mortar is so decayed and the bricks so loose as to render it unsafe even for a day.
June 28.	GROSVENOR STREET West	There is a piece of sewer (unoccupied) running across the end of Upper Eaton Street, the crown of which should be broke in and the sewer filled up; the bricks are so rotten that they will not pay for removal. The invert is gone, and the sewer in danger of being crushed in.
Sept. 7.	DORSET STREET, Vaux-hall Road	A piece of old sewer, requires to be broken up, and the space filled in.
Sept. 7.	VAUXHALI. ROAD	At 94 feet from Bessborough Gardens, the bricks are thrown into the sewer; the remainder of the brick-work to the dead end hangs unsupported, and the ground falling in.
Sept. 7.	GARDEN STREET, Vaux- hall Road	Has mouth-pieces for drains left in the brick- work of the sewer, but very few houses are drained into it. The street gutter is in a very filthy state.
Sept. 15.	Oxford Street	The sewer on the north side from Portman Street westward is in so ruinous a state as to be in danger of falling; the arch is broken and depressed, and the bottom full of steps and all kinds of irregularities, thus—
		so that the sewer must be nearly choked with deposit before it can have any discharge. From Wells Street to South Molton Street the sewer is good and sound.
August 1.	BUCKINGHAM ROW to WESTMINSTER BRIDE-WELL	The brick-work of this sewer is in a crum- bling state. It has a considerable deposit, and the smell very sickening.
August 1.	LEWISHAM STREET	This sewer is in a very bad state. For 300 feet the brick-work is in a ruinous condition, with two feet of filthy matter.
August 1.	DOWNING STREET	Sewer is nearly choked with filth.
August 1.	TOTHILL STREET, east end	In a similar condition with Downing street.



#### WESTERN DIVISION-(Continued).

Date.	Names of Streets.	Observations.
1848. August 1.	WHITEHALL PLACE	Sewer is in a wretched state, with two of three feet of deposit.
August 1.	Between Great Smith Street and St Ann's Street	Is a curiosity among sewers, although it is probably only one instance out of many singular constructions that will be discovered in the course of the subterranean survey. The bottom

is formed of planks laid upon transverse timbers, 6 inches by 6 inches, about 3 feet apart; the size of the sewer varies in width from 2 feet to 6 feet, and from 4 feet to 5 feet in height. The inclination of the bottom is very irregular; there are jumps up at two or three places, and it contains a deposit of filth averaging nine inches in depth, the sickening smell from which escapes into the houses and yards that drain into it. The brick-work is in a very dilapidated state. In many places the side walls have given way for lengths of 10 and 15 feet. At one point the arch has fallen in, and at another the side wall has been forced over to within eighteen inches of the opposite side. Across this sewer timbers have been laid, upon which the external wall of a workshop has been built; the timbers are in a decaying state, and should they give way the wall will fall into the sewer. There are other workshops and outhouses erected upon the arch, the weight of which has no doubt caused the brick-work to give way.

August 8.	Between TOTHIL and ORCHARD	L STREET STREET	
August 8.	Westminster House	Work-	

...Sewers are in a most vile and filthy state as far as they have been examined; but the majority cannot be got at on account of their condition. A portion of these are in the line of the Westminster improvements.

...This sewer is in so wretched a condition that the leveller states that "he could scarcely work from the thick scum that covered the glasses of the spirit-level in a few minutes after being

wiped." This sewer is of all shapes and sizes. At the outfall into the Dean-street sewer it is 3 feet 6 inches by 2 feet 8 inches for a short length. From the end of this a wide sewer branches in each direction at right angles—5 feet 8 inches by 5 feet 5 inches Proceeding to the eastward about 30 feet, a chamber is reached 36 feet in length, from the roof of which hangings of putrid matter like stalactites descend 3 feet in length. At the end of this chamber the sewer passes under the public privies, the ceiling of which can be seen from it. "Beyond this it is not possible to go."

August 8.	MILLBANK STREET
August 8.	LITTLE COLLEGE STREET
	A Company of the State of the S
August 8.	Pimlico Road
August 8.	LUCAS STREET
	Same a la ma sa man.
Sept. 2.	LUPUS STREET and ST GEORGE'S SQUARE

... Sewer has a foot of deposit.

... Has upwards of a foot of stagnant filth, the bottom of the sewer being that much below the sewer into which it has its discharge in Great College Street.

...This sewer has deposit all along it, and near Arabella Row it is 20 inches deep.

... Having its outfall in the King's Scholars' Pond sewer, where a portion of new work begins and the old terminates, a space of about 10 feet has been covered with boards, which having broken, a dangerous chasm has been caused immediately under the road.

... These sewers have from one to two feet of putrid matter.

Date.	Names of Streets.		Observations.
1848. Sept. 2.	WARWICK STREET and HUGH STREET, Pimlico	10000	Sewers have a horrible smell, the deposit being from one to two feet in depth.
Sept. 2.			Has two feet of deposit, and the smell so bad that the leveller's watch turned quite black in an hour.
Sept. 2.	LEONARD STREET, Vaux- hall Road	A D ands	There is a deposit of two feet six inches in depth in this sewer, and the house-drains are all covered.
Sept. 26.	WEYMOUTH STREET		At about 20 feet from the side entrance; the flat invert and the ground is washed away to the depth of one foot below the springing walls. A considerable length is without support and dangerous. Between Harley and Wimpole Streets the sewer should have a new invert in cement, and the springing walls underpinned with the same. A few other places require repair. At 80 feet west from Beaumont Street the walls are undermined, and parts have fallen in.
Sept. 27.	QUEEN ANN STREET		West from its junction with Wimpole street, the sewer is very old and decayed; at about 150 feet the invert of the sewer is washed away, and the springing walls crushed in a foot and a half, and is now dangerous to the public. If this and several other places were repaired in cement, and the springing walls underpinned, the sewer would last many years. A fearful-looking chasm is made by the falling of one of the side walls; at 20 feet west of the new egg-shape sewer in Foley Place.
Sept. 27.	Welbeck Street		The sewer is in a crumbling condition for the distance of 240 feet. The invert is washed away, and the springing walls crushed in a foot and a half; these should be properly repaired to preserve the sewer. There has been 19 feet of new invert put in some time ago, which has effectually preserved that part of the sewer. From Queen Ann Street to Bulstrode Street, the invert is washed up and the arch crushed.
Oct. 17.	ORCHARD PLACE		Branching off Orchard Street, Portman Square, the sewer is dangerous to the public (although there is no carriage-way above); the side walls and arch are crushed in various places.
Oct. 20.	ORCHARD STREET	San F	Sewer requires a new invert; the present one being washed into holes.
Oct. 20.	UPPER and LOWER BERK ELEY STREET, and North side of PORTMAN SQ.		Sewers are in a ruinous condition; the side walls and crown having fallen in various places. The invert is forced up, so that the breadth is only 9 inches, where it was formerly 3 feet; and for a distance of 1,035 feet the walls

Date.	Names of Streets.	Observations,
1848. Oct. 20.	UPPERAND LOWER BERK- ELEY STREET, and North side of PORTMAN SQ.	are abutting one against the other, and the arch without support for distances of 20 to 30 fee in length, and sometimes held up by a mere brick; should this give way the road will instantly follow. There is a deposit of from sinches to 2 feet of rotten bricks in this sewer and so choked up that part of it could not be levelled.
Oct. 20.	Somerset Street	The material of this sewer is in a ruinous and decayed condition; the side walls and arch are crushed in various places. It should be rebuilt
Oct. 20.	GRAY'S BUILDINGS	This sewer is equally as defective as Somerset Street.
Oct. 20.	Edward's Mews	Sewer is in a ruinous condition, having breaches in the side walls of from 10 to 20 feet in length; the crown of the arch having faller in various places. It should be rebuilt.
Oct. 20.	PORTMAN SQUARE, South, UPPER and LOWER SEY- MOUR STREET, and SEY- MOUR MEWS	Several places in these sewers are in a dilapidated state, the arch frequently being quite flat, and even lower than the springing walls; the side walls are forced backwards and forwards, the inverts bulged up, and washed into holes; at the junctions of the house-drains the chasms are from 10 to 15 feet in length.
Oct. 20.	BRYANSTON STREETS, Upper and Lower	These sewers are in a frightful state of decay, the side walls and arch having fallen in for lengths of from 18 to 24 feet, the inverts frequently washed up. The house-drains have entirely fallen and are choked up.
Oct. 20.	PORTMAN STREET and PORTMAN SQUARE, West	Sewers are quite rotten and falling in bit by bit, often without support from 10 to 16 feet in length.
Oct. 20.	New Quebec Street	Sewer dangerous. The arch flattened, the side walls all manner of shapes, and the invert torn up.
Oct. 20.	GREAT CUMBERLAND PLACE	Sewer requires a new invert, the present one being one brick flat, and very irregular.
Oct. 28.	CUMBERLAND MEWS	Sewer goes under the buildings of Upper Bryanston street. The invert is all washed away, the side walls and arch falling in; if the sewer gives way the houses will follow.
Oct. 20.	MANCHESTER STREET	Sewer very much decayed, the arch and side walls crushed in several places. Requires repair.
Oct. 20.	GEORGE STREET, Upper part of	Sewer in a most dilapidated state, the invert being washed away in various places; requires a new invert; side walls, junctions, and house- drains require repair also.

Date.	Names of Streets,	Observations.
1848. Oct. 20.	EDGWARE ROAD, under the Pavement	Sewer in a most ruinous condition, the side walls are crushed in various places. Sewer should be filled up and the house-drains made to communicate with the sewer in the centre of the street.
Oct. 20.	Montague Street	Sewer very rotten, arch crushed in various places. House drains broken up at their junctions with the sewer.
Oct. 20.	BAKER STREET	Sewer very much decayed.
Oct. 20.	King Street	Invert washed into holes; should have a new one, and the side walls repaired.
Oct. 20.	GLOUCESTER STREET	Sewer in a dilapidated condition.
Oct. 20.	BRYANSTON SQUARE, East	The arch is dangerous in several places,
Oct. 20.	Dorset Street	The invert, side walls, and house drains require repairs.
Oct. 20.	MONTAGUE PLACE	Sewer requires some repair. There are two sewers at the upper end (right and left) that are in danger of falling, and should be repaired as soon as possible.
Sept. 22.	CAVENDISH Sq., South	The sewer (from 30 to 136 feet from the side entrance towards Henrietta Street) is faulty and requires an inspection. A branch under the houses (at the south-west corner) is in a ruinous condition for 125 feet.
Sept. 22.	CAVENDISH SQUARE, North	Sewer very much decayed; the invert washed up in various places.
Sept. 22.	OLD CAVENDISH STREET	The brickwork of this sewer is in a dilapidated and crumbling condition. An early inspection is necessary. A branch into Red Lion Yard is in the same condition.
Sept. 22.	CHAPEL PLACE	The brickwork of this sewer is old and decayed on the east side, but new and good on the south side.
Sept. 22.	Vere Street	The brickwork of this sewer is old, decayed, and nearly choked with sand.
Sept. 22.	HENRIETTA STREET	The brickwork (for 326 feet from Cavendish square) is very old, but may stand some years; from that to 416 feet is a new sewer; then the bad old one continues to 668 feet, to its junction with Welbeck Street.
Sept. 22.	Henrietta Street, West	From Barrett's Court to James Street, the sewer is old but sound, and from that to the main sewer in Duke Street is new and good. A private sewer under Stratford Place has fallen in; should be broken up and replaced by a new one.

Date.	Names of Streets,	Observations.
1848. Sept. 22.	Wigmore Street	From the junction with Welbeck Street the brickwork of this sewer is decayed for 60 feet; from that to 160 feet is a new sewer; but from 160 feet to the junction with Wimpole Street it is very much decayed, and requires an inspection; from thence to the side entrance it
		is old but sound. There is an old main sewer running by Barrett's Court, to South Molton Street, which is very old and decayed.
Sept. 25.	HARLEY STREET	Commencing northward from Queen Ann St. The invert is washed up at 10 feet, and from 50 to 70, also from 150 to 170 ft. These parts should be attended to, or the side walls will collapse.
Oct. 20.	HARLEY STREET, Upper	At 150 feet from the junction with Devonshire Street, the side wall has nearly fallen across the sewer and should be attended to as soon as possible. From 150 to 176 feet is old and decayed, but may stand for some time; from 176 feet to the dead end is new and good.
Dec. 7.	GREAT and LITTLE CHESTERFIELD STREETS, and MARYLEBONE COURT	These sewers are of the very worst description, being so filled with deposit and ruinous material that portions of them cannot be perambulated.
Dec. 7.	BENTINCK STREET	From Marylebone to the dead end the side walls are undermined, and the bottom washed up.
Dec. 7.	HINDE STREET	From the junction with Marylebone Lane to Spanish Place, the sewer is quite in ruins, and dangerous. The arch is crushed, thus—-
	Side artin year a of a	
Dec. 7.	MANCHESTER SQUARE, South	From Hinde Street to the bend; the sewer is very old and dangerous, but from that to the main sewer, it is good and in perfect order.
Dec. 7.	WESTMORELAND STREET & WOODSTOCK STREET	The sewer is totally decayed throughout the entire length. It is is not safe, even for a day.
Sept. 28.	JAMES STREET, Oxford Street	From Edward to Henrietta Streets the sewer is so decayed, crushed, and fallen that a new one is required. From Henrietta to Oxford Streets the sewer is new and good.
Sept. 28.	GRAY'S COURT and GRAY STREET	Sewers, too small, filthy, and decayed, to be traversed.
Sept. 28.	BIRD STREET	The brickwork of the whole sewer is very much decayed.
Nov. 4.	Spring Street	Several parts of this sewer requires repair; the bottom being washed into holes, and the arch having given way in several places.
Nov. 4.	CRAWFORD STREET and JOHN STREET, West	Four hundred and seventeen feet of this sewer is very much decayed, and requires repair; but 505 feet is in a crumbling and ruinous

Date.	Names of Streets.		Observations,
1848.			
Nov. 4.	CRAWFORD STREET and JOHN STREET, West		condition, the bottom being mostly gone, and the side walls crushed into various shapes; the arch in danger of falling. The house and gully drains are in a ruinous condition, where they join the public sewer.
Nov. 4.	NEWENHAM STREET		The lower half of this sewer is new and good, but the other half is in a crumbling condition; the invert is very irregular, the side walls forced in and out, and the arch very defective; the house-drains are destroyed at their junction with the public sewer.
Nov. 4.	Horace Street		The invert and side walls of this sewer require repair.
Nov. 4.	MOLYNEUX STREET	Invert.	The lower part of this sewer is in a most horrible condition from decay and filth; the arch and side walls are in danger of falling; the deposit is two feet in depth, and cannot be cleared away, owing to a step being left where a new sewer has been made to join.
Nov. 4.	SHOULDHAM STREET, and BROWN STREET, West of Bryanston Square		Several parts of these sewers are in a crumbling condition; the inverts very irregular; the arches and side walls in various places are in danger of falling. If repaired, the sewers would stand for some years.
Nov. 4.	QUEEN STREET, West		Sewer in same condition as the foregoing.
Nov. 4.	end Homer Street		If repaired, the sewer would last a number of years.
Nov. 4.	Homer Row		Sewer in a very rotten state. Should be rebuilt.
Nov. 4.	YORK STREET, and UPPER YORK STREET		The arch, side walls, and house-drains, require repair.
Nov. 4.	HARCOURT STREET, the top of Upper York Street, and Circus Street		Sewers all but falling in. Should be rebuilt.
Nov. 4,	Holles Street, Cavendish Square		Sewer is old and decayed, but may stand several years if repaired. A man-hole at 223 feet south of Cavendish Square (where two gullies have been improperly inserted and destroyed the brickwork) should be attended to at once.
Oct. 4.	PRINCES STREET, Oxford Street		At 340 and 350 feet from Margaret Street there are two breaches in the side wall of the sewer, which should be repaired as soon as possible.
Oct. 13.	JOHN'S COURT and MARY- LEBONE LANE		At 50 and 136 feet from Wigmore Street; the brickwork of this sewer is old and decayed, but from 136 to 330 feet it is dangerous to the

Date.	Names of Streets.	Observations.
1848. Oct. 13.	John's Court and Mary- LEBONE LANE	public. From 350 to 480 feet the arch is crushed thus— and from thence to the junction with High Street the sewer is old and decayed, but may stand for some time.
Oct. 13.	SOUTH STREET	From the junction of Great Marylebone Street westwards the sewer is in a crumbling condition for the distance of 50 feet. At the junction with North Mews the arch requires repair for the distance of 19 feet. The remaining part of the sewer is old, but may stand for several years.
Oct. 4.	North Street, Manchester Square	From the junction with South Street, 463 feet of this sewer is old and flat-bottomed, but may stand for some years; from 463 to 594 feet is a new sewer, and from that to the dead end (at 715 feet) is so old and decayed that it is in danger of falling. The return-sewer in Grotto Passage (101 feet long) is as bad as it can be. Another, on the west side, is so filthy and decayed, that it could not be levelled.
Oct. 14.	HIGH STREET	Nearly opposite to Weymouth Street the side wall of the sewer is undermined, and fallen for the distance of 10 feet. This should be attended to for the prevention of further damage. The same also occurs at 120 and 140 feet from Weymouth Street northwards; then from Nottingham Street to the dead end (a distance of 160 feet) the sewer is in a dilapidated condition. One of the dead ends, at 58 feet from the junction with Beaumont Street, has not been built up, and a chasm is formed under the street.
Oct. 14.	BARLOW AND LITTLE BARLOW STREETS	Brickwork old and decayed, but may stand for some years.
Oct. 14.	NOTTINGHAM PLACE	Northwards from the junction with Not- tingham Street, the sewer from 65 to 339 feet is very bad, and requires repair. The remaining part of this sewer is in good condition.
Oct. 14.	WOODSTOCK STREET	Sewer from Paddington to Nottingham Street is in a dilapidated condition.
Oct. 16.	NOTTINGHAM STREET	At 130 feet west from the junction with Not- tingham Place, the side wall of the sewer is washed away; the same also occurs at 195 and 207 feet. At its junction with Northumber- land Street the sewer is altogether fallen, and requires immediate attention.
Oct. 16.	PADDINGTON STREET	At 29 feet east from the junction with Northumberland Street, the side wall of the sewer is broken down, and requires attention to prevent further decay. At 105 feet west from East D

Date.	Names of Streets.	Observations.
1848. Oct. 16.	PADDINGTON STREET	Street the side wall is entirely fallen; and from 131 to 146 feet the arch is so crushed, as to be dangerous to the public.
Oct. 16.	YORK MEWS	FromPaddington street into the Mews, the sewer is old and decayed, but may stand for some time.
Oct. 16.	EAST STREET	At 22 and 25 feet northward from the junc- tion with Dorset Street; the water from the gulleys have washed down the walls of the sewer, causing a large chasm; at 87, 187, and

212 feet, the side wall is bulged and decayed. At 266 feet from the side entrance of Paddington Street, a tubular pipe has been put into the sewer from the back of the wall, the brickwork is left loose and dangerous, the arch is crushed, and requires attention as soon as possible. At 282 and 290 feet the springing walls are washed down; from 330 to 380 feet the centre bricks have fallen out of the arch, and the side wall on one side has fallen down; from that to the junction with (and to the dead end of) David Street, the brickwork is so old, decayed, crushed, and fallen, as to require immediate attention.

	AND THE PARTY NAMED IN	
Oct. 23.	Wimpole Street	At 150 feet north of Weymouth Street; the bottom is washed away and the side wall undermined. From Weymouth to Queen Ann Street, the bottom is washed up in several places. The remaining part of the sewer is old, but may stand for many years.
Oct. 23.	DEVONSHIRE STREET	From the dead end near HighStreet to the dead end near Weymouth Mews, is very old and decayed; the invert being washed up in many places.
Oct. 24.	DEVONSHIRE MEWS, West	This sewer is undermined, at the turning into the Mews.
Oct. 24.	DUCHESS STREET	Eastward from Mansfield Street; the sewer is old and sound, except that the south wall is crushed and sunk (for the distance of 20 feet) at 460 feet, from the junction with Mansfield Street.
Dec. 16.	GREAT MARYLEBONE STREET	The sewer from High Street to the dead end (east end of Little Marylebone Street) is very old and decayed; the invert being washed up in various places. At 200 feet from Welbeck Street, the side walls are washed away in various places.
Nov. 11.	UpperWyndhamStreet, Great Queen Street, and John Street, Bry- anston Square	Sewers are in a dilapidated state; the side walls are all manner of shapes; the arches are all but fallen in; and the inverts mostly gone.
Nov. 11.	PARK STREET, Dorset Square	This sewer is very much broken up; the arch having fallen in two places, and quite flat for 50 feet; the invert is frequently washed up. As the sewer passes under some houses (the consequence may be serious), the bricklayer proposes piers, at about 5 feet apart, in cement.
Nov. 17.	PARK PLACE	Sewer runs under the pavement, and is in a

ruinous state; the arch, side walls, house and

gully-drains, have mostly fallen.

Date.	Names of Streets.	160 11/1	Observations,
1848.			
Nov. 17.	SOUTH BANK and EDWARD STREET		The sides are bulged so that the original breadth of the sewer (3 feet) is now only 1 foot 6 inches.
Nov. 25.	New Road, Edgware Road		The sewer is in a very ruinous and rotten state, being washed into holes.
Dec. 23.	NORTH BANK (about Portland Town)		For several feet, the sewer is in danger of falling. The invert requires repair in various places.
Dec. 23.	CAVENDISH ROAD		The arch of the sewer (for a distance of 7 feet), is crushed in 3 inches. The invert is also irregular.
Dec. 23.	PORTLAND TOWN ROAD	10y	This sewer is very rotten. The arch for several feet is falling in.
Dec. 23.	WILLIAM STREETS, North and South, Portland Town	0 300 8 800 1 3 3 4 5 1 3 3 4 5	These sewers are very much distorted; the arch and side walls have fallen in many parts. The deposit in several places being above 2 feet in depth.
Dec. 23.	Oak Tree Road and Cavendish Road, West	2 (10)	Sewers require repair; being much distorted.
Dec. 23.	OLD QUEBEC STREET	6036	Sewer is rotten and decayed.
Sept. 22.	UPPER BROOK STREET (Oxford Street)		Sewer is in a crumbling state, having several breaches (one to the extent of 5 feet in length from the crown to the invert), the rubbish of which half fills up the sewer. The bricklayer expresses his astonishment that it stands.
Sept. 22.	PARK STREET (Grosvenor Square)		Has a breach across the entire sewer (for about four feet in length) at 25 feet from its junction with Brook Street (south end), and is filled up with rubbish and deposit, covering all the house-drains. That part south of Green Street, is so much filled with deposit, that the leveller could not proceed further than 200 feet.
Sept. 22.	KING STREET, and KING STREET MEWS, Gros- venor Square		These sewers are nearly as bad as the foregoing one; and are almost useless in their present state, from the great depth of deposit.
Sept. 22.	NORFOLK STREET		Branching north from Green Street. The sewer is in a ruinous and dilapidated state.
Sept. 22.	NORTH ROW		Branching west from Park Street. At about 100 feet, the springing walls have quite crumbled away, rendering the sewer very dangerous.
Sept. 22.	DAVIES STREET		At 25 feet from the junction with Grosvenor Street, the entire arch has fallen in (for 8 feet in length); and as the sewer is 6 feet by 4 feet, this breach is dangerous to the public.
Oct. 21.	CURZON STREET	+	West of South Audley Street. The springing walls are crushed in on both sides, at various

Date.	Names of Streets.	Observations,
1848. Oct. 21.	CURZON STREET	places, for the distance of 150 feet; the rubbis lying about the sewer obstructing the discharge and the deposit accumulating so fast that the sewer will shortly be choked up altogether.
Oct. 17.	New Tothill Street	Sewers, branching off right and left at the east end, and passing under the houses, are quit rotten. The inverts are gone, the side walls an arches in a crumbling state, and are momentarily in danger of being crushed in. All the sewers between Tothill Street and Orchar Street, and from that to Old Pye Street, are in a most deplorable state, being all rotten, ver filthy, and fatid, and the construction of a great variety of shapes.
Sept. 19.	King's Scholar's Pond.	(Old course) about Stafford Place (for distance of 424 feet), is of various shapes and contains about a noot of leposit, and has a horrible smell. Brickwork of the worsdescription.
Nov. 27.	HORSEFERRY ROAD	(Old course) The sewer runs under the house (on the north side) and through a number of Courts from Millbank Street to 10 feet wes

of Marsham Street. This old sewer is all manner of shapes and inclinations, smell of the most horrible character; at one place west of Grub Street there appears to be the side wall of a house, resting upon some flags thrown transversely across the sewer, at 11 feet above the invert. The sewer westward from this point is completely filled up with bricks and rubbish for a considerable distance. If a 9 or 12 inch pipe were inserted, and the sewer filled up, it would be of great benefit to the neighbourhood.

Oct. 13.	DUKE STREET, Westmin- ster	
July 14.	PARLIAMENT STREET	

... This sewer is all manner of shapes, and nearly filled with deposit; has no outlet except by a narrow filthy sewer down Gardener Street.

... (Sewer on the north-west) The side walls (for 200 feet, joining Bridge Street) are in a ruinous and crumbling condition, the arch being fre-

quently without support for 5 feet in length. The north end is filled with deposit to the soffit,

although the sewer is 5 feet 10 inches × 3 feet 2 inches. The smell is horrible.

(Sewer on the south-east side) Brick work good for the first 25 feet from Bridge Street; the next 35 feet is in a ruinous state, and the arch without support for lengths of 4 to 5 feet. (If this sewer was under the carriage-way it might not stand for a day.) The material is in rather better condition from 60 to 100 feet, and then good and sound from that to the dead end (at 335 feet from Bridge Street). This sewer is clean, but the smell is very offensive.

## EASTERN DIVISION.

Date.	Names of Streets.	Observations.
1848. August 15.	ST CLEMENT DANES	The invert of the sewer (by the side entrance) is washed away in lengths of from 6 to 10 feet, and 1½ feet in depth, for the distance of 150 feet. The great current of water in this sewer will shortly bring down the side walls. The pavement of the side entrance is giving way, by the escape of water from a well in the rear.
August 15.	Newcastle Street	(At 230 feet upwards from Wych Street). This sewer is in a dreadful state of decay; and at the end to the right is a cesspool 8 feet 9 inches high, 5 feet wide, and 5 feet 9 inches in length, which has 3 feet of deposit just level with the outlet into the sewer. Farther on there is another cesspool of similar dimensions, but quite in ruins. At No. 10 (public house) there is an opening from the area into the sewer, the effluvium from which escapes to the street with a sickening smell. There are one or two branches from this sewer in a ruinous condition; and have a horrible smell.
August 15.	Wych Street	Sewer (from the junction with Newcastle Street westward to the dead end) is in a dilapidated condition; and two small sewers to the left are equally ruinous.
August 15.	CLARE STREET	The invert of this sewer has been taken out for 51 feet, which should be replaced.
August 15.	BLACKMOOR STREET	A portion of this sewer is in ruins, and then continued by a new one, 5 feet 6 inches by 3 feet, but the invert is 2 feet lower than the outlet through the old one; therefore the deposit must accumulate to that height before it can have any discharge. The stench arising from this through the gully-grates and house-drains is of the most fearful description. There is another branch from Clare Street in a ruinous condition for about 100 feet; it has transverse beams of timber 5 feet apart, forming anything but a smooth bottom.
August 21.	Houghton Street	At 221 feet from St Clement's Inn passage this sewer is in a ruinous condition for 150 feet (the stench horrible), then a new one for the length of 182½ feet, which is continued by a small one with a flat bottom, in a ruinous state. If these old pieces were rooted out, and the new one continued, the deposit would have a free exit.
August 21.	CHAPEL PLACE, Duke Street	Sewer has a step of $3\frac{1}{2}$ feet the reverse way. The deposit has so accumulated as to cover all the house-drains.
August 21.	LITTLE WILD STREET	Sewer has also a step of 4 inches the reverse way. (Is a new one, 5 feet by 2 feet 6 inches.)
August 21.	PARKER STREET, Great Queen Street	This sewer is broken and exposed by a communication with a water-closet. The sewers in this neighbourhood have a great number of drops, and all kinds of irregularities.

Date.	Names of Streets.	Observations.
1848. August 26.	STRAND	At 240 feet east of Salisbury Street, the sew is choked up with dry deposit 3 feet in dep At 733 feet from Charing Cross, a water-pipe h burst, to the great injury of the material of t sewer.
August 26.	BEDFORD STREET, Strand.	The invert of this sewer is broken into hole
August 26.	HENRIETTA STREET	About a foot of the arch of this sewer broken, and a quantity of earth fallen in.
August 26.	COVENT GARDEN, North, East, and South	Sewers are filled with rubbish.
August 26.	VINEGAR YARD	Sewer in a crumbling condition for the who length (120 feet).
August 26.	GREAT RUSSELL STREET, Covent Garden	The crown of the arch is broken in two three places. A branch sewer in a dilapidat condition for 133 feet.
August 26.	BURLEIGH STREET, Strand	(A branch of) In ruins, and filled with d
Sept. 4.	Brownlow Street, Drury Lane	Sewer is in a most dilapidated condition; to side walls and arch have fallen down in various places; it is all manner of shapes and inclinations, the drop into Endell Street being 8 fer For 450 feet the deposit is only about 6 inches but the smell is horrible; from 450 feet we ward the sewer is filled with deposit and eart
Sept. 4.	BRYDGES STREET	Sewer (a branch of) in a crumbling condition with 2 feet of deposit, and a suffocating smel
Sept. 15.	Craven Street, Charing Cross	(At 212 feet from the outlet) The side wa and crown of the arch is broken in for 5 fee The sewer is in a dilapidated state from end to er The outlets of several of the drains and gulli between Northumberland Street and Waterle Bridge are in a ruinous state.
August 18.	WEST STREET	Sewer had I foot of deposit. It was flushed while the levelling party was at work there, at the stream was so rapid that it nearly washed them away, instrument and all.
August 8.	Broad Street (from Drury Lane westward, St Giles's District)	This sewer has a deposit of from 5 to inches, with a bad smell.
August 8.	ST MARTIN'S LANE	Sewer (recently built) is in an excellent state of preservation; it has a granite bottom, with good fall, and strong stream. The brane sewers are in a ruinous state; and some near choked with rubbish.
Sept. 16.	LONG ACRE	Sewer (recently built) has from 4 to 6 inch of deposit.
Sept. 16.	EXETER STREET, MAIDEN LANE, and TAVISTOCK STREET	Sewers have from 6 inches to 2 feet deposit.

Date,	Names of Streets,		Observations.
			O Set rations,
1848. Sept. 16.	JAMES STREET, Covent Garden		Sewer is in bad condition, and out of shape.
Sept. 16.	CHARLES STREET, Drury Lane		Portions of this sewer (under Glover's Iron Foundry), from 15 to 20 feet in length, have fallen in. Several houses that are built across this sewer are in danger of falling.
Sept. 16.	STRAND, near Temple Bar		Sewer is in a decayed state, with 2 feet 6 inches of deposit. An old sewer (not now used), running diagonally across Lincoln's-Inn Fields, emits a horrible smell.
Sept. 16.	CASTLE STREET, Seven Dials		The crown of the sewer has given way, at the junction with Mercer Street.
Sept. 16.	CATHERINE STREET		(At the lower end of Drury Lane). Could offly be levelled a short distance on account of the depth of deposit.
Sept. 16.	MARGARET STREET, Ox- ford Street		The west end of this sewer (for 325 feet) is in a most dilapidated state of decay: the house drains are in a ruinous state. Between 400 and 590 feet at the east end is so old, and rotten, as to call for an immediate inspection.
Sept. 16.	DUKE STREET and CHAR- LOTTE STREET		This sewer (from Foley Place to the junction with Weymouth Street) is old and decayed, and in many places falling in; at the junction with Devonshire Street it is also broken. "The return," along New Cavendish Street, is as bad as it can be.
Oct. 26.	PORTLAND PLACE		Is an old sewer, but sound. It is not bricked up at the dead end near Park Crescent, which causes a chasm to be formed under the road.
Oct. 26.	CLIPSTONE STREET	122	(Between Portland Road and Norton Street) The sewer is dangerous in several places. At 50 feet from the side entrance the side wall is broken.
Oct. 26.	NORTON STREET	Selling to a selli	From the junction with Clipstone Street (for the distance of 429 feet) the arch is crushed, and requires attention. Near the junction with Carburton Street several places in the side walls have fallen. The branch from Upper Marylebone Street, is quite decayed, and of all manner of shapes.
Nov. 13.	CLEVELAND STREET, Fitz- roy Square	Indiana Park	At 250, 315, and 350 feet north (from the side entrance) the walls have fallen back and the arch opened; at 375 feet on the west side, a drain has washed down the side wall; from 700 to 870 feet the sewer is crushed in all manner of shapes, the arch being open in several places and the bricks talling down.
Nov. 13.	BUCKINGHAM STREET	pille	At from 100 to 130 feet (from the side entrance) the arch of the sewer has opened, and the bricks have fallen out.

Date.	Names of Streets.	Observations.
1848. Nov. 13.	WARREN STREET	At from 775 to 790 feet (from the foregoing side entrance) the arch has opened and the bricks fallen out. From the junction with Fitzroy Square to Tottenham Court Road the sewer is in all manner of shapes, and frequently broken, the arch being ready to fall down with the least shake.
Nov. 13.	FITZROY SQUARE East	3 feet of the invert of this sewer is washed up.
Nov. 13.	FITZROY SQUARE South	The invert of this sewer is nearly all washed away (being brick flat).
Nov. 15.	GRAFTON STREET, Fitzroy Square.	This sewer (between the west-end, and Fitzroy Square), for the distance of 40 feet the arch is crushed and the invert washed up into holes. The invert is also washed away at 97 feet eas of the junction with Fitzroy Square.
Nov. 15.	GRAFTON COURT	The sewer (from 50 feet north of the side entrance to the dead end) is in a frightful state of decay.
Nov. 15.	HERTFORD STREET	264 feet of the sewer is new and good, but 176 feet (at the north end) is old and decayed, but not in immediate danger.
Nov. 16.	TOTTENHAM COURT ROAD	From the New Road to Oxford Street there is a new sewer along the centre of the road, but an old sewer, under the pavement, between Warren and London Streets, is in a crumbling and rotten condition; this should be filled up, and the house-drains prolonged to the new sewer.
Nov. 16.	GREAT PORTLAND STREET	This sewer is old and decayed. Between New Cavendish Street and Foley Place it is in a rotten state. At 30 feet north of Riding-house Lane, the sewer is in a ruinous condition.
Nov. 16.	GREAT TITCHFIELD ST	At 25 feet (from the junction with Clipstone Street), the side wall is washed down at the joining of a gully-hole, from thence to 160 feet

it is in a crumbling condition, and in danger of falling; it is then continued for 35 feet by a new sewer; when the old one again continues with its decayed and bulged walls, and crushed arch to the distance of 220 feet south of Marylebone Street. From 220 to Foley Street, though old and decayed, it may stand many years. From Foley Street to Union Court is a new egg shape, but from that to the dead end (south of Margaret Street) it is fearfully crushed and distorted, one place having a dangerous chasm under the carriage-way.

Nov. 7.	FOLEY STREET	
Nov. 7.	NORFOLK STREET	
Nov. 7.	SAVILLE STREET	ind and

...This sewer is all in a dilapidated and ruinous condition; except one new piece of 70 feet, and another of 41 feet, which have been added by the way of repair.

... Has 240 feet of old and ruinous sewer; the arch and side walls are crushed in all manner of shapes.

. . Has 80 feet of very bad sewer; the walls are decayed, and the arch crushed.

Date.	Names of Streets.	Barre II	Observations.
1848.			
Nov. 7.	UPPER MARYLEBONE STREET		Three-quarters of this sewer is very old and decayed, frequently washed into holes, and the sides crushed in.
Nov. 7.	GEORGE STREET		(A branch from the above sewer). Is in a dilapidated condition and in danger of falling; the side wall having fallen in various places; leaving the arch unsupported.
Nov. 21.	John Street, Tottenham Court Road		(From Windmill Street to Goodge Street) the sewer is old and decayed; 160 feet from Goodge Street it is decayed and rotten; the gullies for the above distance are all washed down, where they enter the sewer.
Nov. 21.	TOTTENHAM STREET		Off John Street is very much crushed for 105 feet, and another portion of 50 feet about the centre is very old and decayed. A branch sewer of 55 feet is also old and ruinous.
Nov. 21.	RUSSELL PLACE		Sewer requires a new invert (between Grafton Street and London Street) and lowering to give it a current towards London Street.
Nov. 21.	Goodge Street		A piece of invert washed away (near the drop to the egg-shaped sewer) should be attended to for the prevention of further damage. The arch is crushed for 20 feet (at from 105 to 125 feet east of Tottenham Court Road).
Nov. 21.	WINDMILL STREET, Tot- tenham Court Road		The whole sewer is very old and decayed, but may stand many years.
Nov. 28.	Bennett Street		From Charlotte Street to Upper Rathbone Place; the sewer is crushed, and cannot stand long in its present condition. Thus:
Nov. 28.	UPPER RATHBONE PLACE		Has a piece of sewer, 50 feet long, crushed in a similar manner to the above.
Nov. 28.	Bozier's Court		Sewer is in a very decayed state, and canno stand for any length of time.
Nov. 29.	PERCY STREET		Sewer for 300 feet is so rotten and decayed that it is momentarily in danger of falling.
Nov. 29.	HANWAY STREET		The brickwork cannot be in a worse condition through age and decay.
Nov. 29.	LONDON STREET		Is below the adjoining sewers (between Rus sell Place and Cleveland Street), having a depos of 2 feet 9 inches. This could not be examine for more than 200 feet.
Nov. 30.	Berners Street		A cross sewer under the houses (about mice way between Castle and Charles Streets, Mice dlesex Hospital); is very old and decayed; 200 feet the side wall has fallen, and at 25 feet the arch is broken for the distance of
		1	feet.

Date.	Names of Streets,	Observations,
1848. Dec. 16.	Castle Street and Great Castle Street	For 280 feet (at the west end) the sewer is old and decayed; from that to Berners street is new and good; but from Berners street to Newman street it is old, but sound. There is a piece of new sewer about the centre, of 143 feet in length.
Dec. 16.	CHARLOTTE STREET, Fitz- roy Square	The arch is crushed for 20 feet (at 404 feet from Howland street). From Goodge street to Percy street the sewer is old and decayed, but may stand for many years.
Dec. 16.	Admiralty	The wood over the sewer (at the stable of the Master Gunner's house) is quite rotten, and in danger of falling in; and another at 45 feet from the above, towards Spring Gardens, has fallen down, with 2 feet 9 inches of the earth overhead. This sewer has from 1 foot to 4 feet 4 inches of solid deposit.
Sept. 23.	OLD COMPTON STREET	From the junction in Dean street (towards Wardour Street) the sewer is so very rotten and dangerous, that the levelling party dare not go more than 100 feet for fear of being buried in its ruins. The invert is broken up, the side walls have partially fallen down, leaving gaps, and the arch is without support for several feet in length. The condition of the remaining portion is a matter of uncertainty.

JOSEPH SMITH,

Assistant Surveyor.