

## Appendices

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### Appendix B Word Analysis of Snow on the Broad Street Outbreak

Parallel-column word comparison, depicting Snow's economical composition method in which he draws on previous publications about a particular subject.

Key: **Material not included in both publications**

*Stylistic revisions of similar material*

*MTG 9* (23 September 1854): 321-22.

*MCC2* (1855): 38-41.

**The most terrible outbreak of cholera which ever occurred in this kingdom, is probably that which took place in Broad Street, Golden Square, and the adjoining streets, a few weeks ago. Within two hundred and fifty yards of the spot where Cambridge Street joins Broad Street, there were upwards of five hundred fatal attacks of cholera in ten days. The mortality in this limited area probably equals any that was ever caused in this country, even by the plague; and it was much more sudden, as the greater number of cases terminated in a few hours. The mortality would undoubtedly have been much greater had it not been for the flight of the population. Persons in furnished lodgings left first, then other lodgers went away, leaving their furniture to be sent for when they could meet with a place to put it in. Many houses were closed altogether, ow-**

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To the Editor of the *Medical Times and Gazette*.

Sir,--

As soon

as I became acquainted with the situation and extent of *the late outbreak* of cholera **in Broad-street, Golden Square, and the adjoining street[s]**,

I suspected some contamination of the water of the much frequented street-pump in Broad-street, near the end of Cambridge-street: but on examining the water, on the evening of the 3rd *inst.*, I found so little impurity in it of an organic nature, that I hesitated to come to a conclusion. Further inquiry, however, showed me that there was no other circumstance or *thing* common to the circumscribed locality in which this sudden increase of cholera occurred, and not extending beyond *this locality*, except the water of the above pump. I found, moreover, that the water varied, during the next

**ing to the death of the proprietors; and, in a great number of instances, the tradesmen who remained had sent away their families: so that in less than six days from the commencement of the outbreak, the most afflicted streets were deserted by more than three-quarters of their inhabitants.**

**There were a few cases of cholera in the neighbourhood of Broad Street, Golden Square, in the latter part of August; and the so-called outbreak, which commenced in the night between the 31st August and the 1st September was, as in all similar instances, only a violent increase of the malady.** As soon as I became acquainted with the [38/39] situation and extent of *this irruption* of cholera,

I suspected some contamination of the water of the much-frequented street-pump in Broad Street, near the end of Cambridge Street; but on examining the water, on the evening, of the 3rd *September*, I found so little impurity in it of an organic nature, that I hesitated to come to a conclusion. Further inquiry, however, showed me that there was no other circumstance or *agent* common to the circumscribed locality in which this sudden increase of cholera occurred, and not extending beyond *it*, except the water of the above **mentioned** pump. I found, moreover, that the water varied, during the next

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two days, in the amount of organic impurity **it contained;**

and I concluded that, at the commencement of the outbreak, it might have been still more impure. I requested permission, therefore, to take a list at the General Register Office of the deaths from [321/322] cholera registered during the week ending *September 2*, in the sub-districts of Golden-square, Berwick-street, and St. Ann's, Soho.

Eighty-nine deaths from cholera were registered during the week, in the three sub-districts. Of these, only six occurred in the four first days of the week, four occurred on Thursday, the 31st *ult.*, and the remaining seventy-nine on Friday and Saturday. I considered, therefore, that the outbreak commenced on the Thursday; and I made an inquiry, in detail, respecting the eighty-three deaths registered as having taken place during the last three days of the week.

On proceeding to the spot, I found that nearly all the deaths had taken place within a short distance of the pump. There were only ten deaths in houses situated decidedly nearer to another street pump. In five of these cases the families of the deceased persons informed me that they always sent to the pump in Broad-street, as they preferred the water to that of the

two days, in the amount of organic impurity, **visible to the naked eye, on close inspection, in the form of small white, flocculent particles;** and I concluded that, at the commencement of the outbreak, it might **possibly** have been still more impure. I requested permission, therefore, to take a list, at the General Register Office, of the deaths from cholera, registered during the week ending *2nd September*, in the sub-districts of Golden Square, Berwick Street, and St. Ann's, Soho, **which was kindly granted.**

Eighty-nine deaths from cholera were registered, during the week, in the three subdistricts. Of these, only six occurred in the four first days of the week; four occurred on Thursday, the 31st *August*; and the remaining seventy-nine on Friday and Saturday. I considered, therefore, that the outbreak commenced on the Thursday; and I made inquiry in detail, respecting the eighty-three deaths registered as having taken place during the last three days of the week.

On proceeding to the spot, I found that nearly all the deaths had taken place within a short distance of the pump. There were only ten deaths in houses situated decidedly nearer to another street pump. In five of these cases the families of the deceased persons informed me [39/40] that they always sent to the pump in Broad Street, as they preferred the water to that of the

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*pumps* which were nearer. In three other cases the deceased were children who went to school near the pump in Broad-street. Two of them were known to drink the water, and the parents of the third think it probable that it did so. The other two deaths, beyond the district which this pump supplies, represent only the amount of mortality from cholera that was occurring before the *eruption* took place.

With regard to the deaths occurring in the locality belonging to the pump, there were 61 instances in which I was informed that the deceased persons used to drink the pump water from Broad-street, either constantly or occasionally. In 6 instances I could get no information, owing to the death or departure of every one connected with the deceased individuals; and in 6 cases I was informed that the deceased persons did not drink the pump water before their illness.

The result of *this* inquiry, then, *is*, that there has been no particular outbreak or *prevalence* of cholera in this part of London except among the persons who were in the habit of drinking the water of the above-mentioned pump-well.

I had an interview with the Board of Guardians of St. James's parish, on the evening of the 7th inst., and represented the above circumstances to them. In consequence of what I

*pump* which was nearer. In three other cases, the deceased were children who went to school near the pump in Broad Street. Two of them were known to drink the water; and the parents of the third think it probable that it did so. The other two deaths, beyond the district which this pump supplies, represent only the amount of mortality from cholera that was occurring before the *irruption* took place.

With regard to the deaths occurring in the locality belonging to the pump, there were *sixty-one* instances in which I was informed that the deceased persons used to drink the pump-water from Broad Street, either constantly or occasionally. In *six* instances I could get no information, owing to the death or departure of every one connected with the deceased individuals; and in *six* cases I was informed that the deceased persons did not drink the pump-water before their illness.

The result of *the* inquiry then *was*, that there had been no particular outbreak or *increase* of cholera, in this part of London, except among the persons who were in the habit of drinking the water of the above-mentioned pump-web.

I had an interview with the Board of Guardians of St. James's parish, on the evening of **Thursday**, 7th *September*, and represented the above circumstances to them. In consequence of what I

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said, the handle of the pump was removed on the following day.

*The number of attacks of cholera had been diminished before this measure was adopted, but whether they had diminished in a greater proportion than might be accounted for by the flight of the great bulk of the population I am unable to say. In two or three days after the use of the water was discontinued the number of fresh attacks became very few.*

said, the handle of the pump was removed on the following day.

[eleven pages later, after presenting a table:]  
The greatest number of attacks in any one day occurred on the 1st of September, immediately after the outbreak commenced. The following day the attacks fell from one hundred and forty-three to one hundred and sixteen, and the day afterwards to fifty-four. A glance at the above table will show that *the fresh attacks continued to become less numerous every day. On September the 8th--the day when the handle of the pump was removed--there were twelve attacks; on the 9th, eleven; on the 10th, five; on the 11th, five; on the 12th, only one; and after this time, there were never more than four attacks on one day.*