## THE LONDON BILLS OF MORTALITY IN THE 17th CENTURY

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One of the few pieces of direct evidence as to the population of London in the seventeenth century is contained in the Bills of Mortality, published every week and collected and analysed every year by the Company of Parish Clerks. Various are the opinions as to their accuracy. Captain Graunt and Sir William Petty, while using them to assist in estimating the population at any specific time and its growth from year to year, were sceptical as to their veracity. Subsequent critics, Cornelius Walford, Dr. Ogle, Dr. Brend and, more systematic than all his predecessors, Dr. Creighton, in his History of Epidemics, are far more sympathetic towards the Bills, and one or two tests which they have made tend to confirm the comparative accuracy of the records.

Their history before the seventeenth century may be briefly summarised here. There are two weekly returns of 1527-8, and these relate to two weeks in successive Augusts and to 102 London parishes. Four years later

<sup>&</sup>lt;sup>1</sup> See Appendix at the end of this paper.

<sup>&</sup>lt;sup>2</sup> The Company was perhaps licensed as early as 1233 and was called the Fraternity of St. Nicholas. It was granted Incorporation by Letters Patent by Henry VI, and again by Edward IV as the "Master, Governor, Brothers and Sisters of the Fraternity or Guild of Principal or Chief Clerks of the Colleges and Parish Clerks of London." Unlike many, if not most of the Guilds, it survived its dissolution, and was re-incorporated, 24 Henry viii. One of the many duties assigned to the Parish Clerks was a registration of births and deaths, probably in connection with the comprehensive scheme of Thomas Cromwell's. These returns, begun perhaps without much idea of their ultimate value, continued, with big gaps in he early days of their existence, for more than three centuries.

there are returns of deaths, and the Lord Mayor is asked to furnish particulars. In the British Museum there is the earliest actual Bill, usually dated 1532, unmethodical, it is true, but furnishing details of deaths from plague in most of the City parishes. In 1535 there are further references to the Lord Mayor's Lists, and in 1553 there is a definite ordinance, giving instructions to the Parish Clerks to make themselves responsible for the returns of deaths. "The said Wardens from henceforth shall write or cause to be written weekly the certificate of all such people as shall die or depart within the City of London and the Liberties, as heretofore," implying that the practice was not entirely novel.

The Parish Clerk of each parish was to deliver a copy of the return to his Alderman, and a slight addition was made in 1555 to the effect that the place as well as the fact of death was to be notified. Nothing was so far done as to the cause of death, unless it was plague. Strype, Stow's industrious editor, writes: "To know how the City stands in regard of the Health and Sickness of the inhabitants, the weekly *Bills of Mortality* were appointed long ago, carefully and wisely; that so, if any infectious disease were found to reign, means might be used for the stopping it and preventing the deaths of innumerable citizens." Clearly disease and not the growth of population was the idea underlying the Bills.

In 1562 and 1563 there was a serious outbreak of plague and "in order to know the increase and decrease of the same, 'twas judged necessary to take account of the number of burials.''<sup>2</sup> These statistics were embodied in a printed Bill for 108 parishes in the City and Liberties and 11 parishes adjoining, and both Strype and Maitland judge it to be the earliest formal Bill, preceding as it does by 30 years the earliest quoted by Captain Graunt.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Strype's edition of Stow's Survey, 1720, book i, pp. 448-9.

<sup>&</sup>lt;sup>2</sup> Maitland, *History of London*, 1756, pp. 736-746. See also passages from Stow's *Memoranda*, published by the Camden Society, 1880, giving the number of deaths from plague, 3 July, 1563-26 July, 1566.

<sup>&</sup>lt;sup>3</sup> See Stow's Annals, ed. 1631, p. 657, and Maitland, op. cit., 1756, p. 736.

The year in question was a disastrous plague year for London, and over 20,000 died out of an estimated population of 90,000,<sup>1</sup> the plague being then as always at its worst in the suburbs. "The most corrupte and pestering is S. Poulkars parish, by reason of many fruterers, pore people and stinking lanes as Turnagain Lane, Secolayne, and other such places, there dyed most in London, and were soonest infected and longest continued."<sup>2</sup>

In 1570 new returns were ordered under three heads, those that died within the Walls, in the Liberties and in the Out parishes.<sup>3</sup> To meet the extra duties thus imposed on the busy parish clerks, the fees paid to them were raised in 1578 and again in 1581. In 1582 the parishes included in the Bills are given in alphabetical order and are 109 in number. The Lord Mayor was to report the numbers to the Lords in Council, and strict injunctions were issued to the parish clerks to see to the shutting and labelling of infected houses.<sup>4</sup>

There are at Hatfield, among the Burleigh papers, five years of figures for baptisms and deaths from 1578–82 and in three of the years the number of deaths considerably exceeded the births, if we may assume that everyone born was baptised.<sup>5</sup> Unless the later unwillingness of Nonconformists to give in their figures existed at this time, we must assume that there was a serious decline

<sup>&</sup>lt;sup>1</sup> Creighton, op. cit. Maitland, op. cit., says that he saw a Bill for 1563 in Sir Hans Sloane's Collections, but it has not been found in the British Museum.

<sup>&</sup>lt;sup>2</sup> Dr. John Jones, Dyall of Agues, 1560.

<sup>3</sup> James Christie, History of the Company of Parish Clerks, 1891, p. 135.

<sup>&</sup>lt;sup>4</sup> A Bill for the whole year, 1581-2 is to be seen framed in the Parish Clerks' Hall in Silver Street, London. It is in book form and the title runs "The number of all those that hath dyed in the Citie of London or Liberties of the same from 28 December, 1581, to 27 December, 1582, also the number of them that died of the plague in each several parish." Then follows a list of the parishes alphabetically, mentioning especially those free from plague. At the end of the book are some notes as to the competence of the Parish Clerks and the accuracy of the Bills of Mortality, written in a more modern hand.

<sup>&</sup>lt;sup>5</sup> These Bills were employed by Dr. C. Creighton in his *History of Epidemics*, 1891.

in population, which had to be made up by immigration from the country.

1592 may be regarded as the formal beginning of regular Bills of Mortality, even though after 1594 there is a blank till 1602-3. Petty and Graunt both assume that this was the earliest date at which Bills were prepared, being ignorant, we must suppose, of the earlier examples here mentioned. The Bill was produced in answer to a request from Lord Burghley with regard to the plague, and the fact that for the next decade there was hardly any plague probably accounts for the gap in the Bills. 1603 was a bad plague year, commemorated in Dekker's pamphlet, when the outbreak in London delayed King James' coronation and compelled him to cut through the fields from Stamford Hill to the Charterhouse so as to get to Westminster without touching the infected area.2 From this latter year 1603 would seem to date the earliest form of weekly Bill, and the return for the week 13-20 October gives a terrible picture of the ravages of the disease, more than three-quarters of the mortality being due to plague. There were only 67 baptisms to set against 766 deaths, 642 being due to plague. The form of the Bill is simple. the left-hand side of it being divided into 3 schedules:— 96 parishes within the walls, 16 within the Liberties, with almost as many deaths, and 8 suburban parishes of St. Clement's, St. Giles's and St. Martin's-in-the-Field's, St. Katherine Tower, St. James' Clerkenwell, Whitechapel, and Bermondsey. Only 19 parishes were clear of the plague, 93 being infected of the 112 in the City and Liberties. A comparison is given with other plague years, together with a full table of deaths during the present visitation. A careful but irregular list is

<sup>&</sup>lt;sup>1</sup> Thomas Dekker, The Wonderfull Yeare, 1603, reprinted in F. P. Wilson, The Plague Pamphlets of Thomas Dekker (1925).

<sup>&</sup>lt;sup>2</sup> Fifteen thousand out of 24,000 who died in 1592-3 were victims of plague and 36,000 out of 42,000 in 1603. The population had considerably increased and the outbreak was far more devastating. See Maitland, op. cit., 1756, pp. 736-746.

given of deaths from plague and other causes during a varying number of summer months in 7 places outside, viz., Westminster, the Savoy, Stepney, Newington, Islington, Lambeth and Hackney.<sup>1</sup>

This is an important addition, as it is almost the exact list of the parishes which were finally and permanently added to the Bills in 1636. From this time onward the Bills were returned quite regularly. In 1604 christenings in the Dutch and French Churches were ordered to be sent in, and in the same year these were officially added to the 102 City parishes, St. Clement Danes, St. Giles-in-the-Fields, St. James' Clerkenwell, St. Katherine Tower, St. Leonard Shoreditch, St. Mary Whitechapel, St. Mary Magdalene Bermondsey and St. Martin's-in-the-Fields.

In 1606, St. Mary of the Savoy was added, and in the following year there was an increase in pay because the Bills had to be sent to the King and Queen and the Lord Chancellor.<sup>2</sup> In 1600 a rule was made that Bills were to be handed in to the Lord Mayor at 8 a.m., on Thursdays, and not to anyone else until 10 a.m. This was in order to avoid alarm and panics and the publication of unbelievable tidings.3 Trade and residence abroad were hampered when exaggerated accounts of plague were given, and anyone who by any means whatsoever announced the contents of the Bill before it reached the Lord Mayor was to be fined 10s. The rule was most far-reaching, and included anyone who might "give away, disperse, alter or declare or cast out of window, hole or crevice" the figures contained in the Bill.<sup>4</sup> It is a pity that the care exercised in this matter was not extended to the diagnosis of disease and the return of accurate reports.

In 1612 James granted to the Parish Clerks a charter,

<sup>&</sup>lt;sup>1</sup> See a facsimile of this Bill, reduced from a rather imperfect copy, in Ten Years' Growth of the City of London, 1881-91.

<sup>&</sup>lt;sup>2</sup> Christie, History of the Parish Clerks' Company, 1891, p. 136.

<sup>3</sup> Ibid. 4 Ibid.

in which they are styled: "The Parish Clerks of the Parishes and Parish Churches of the City of London, the Liberties thereof and seven out of the nine out-parishes adjoining." The Clerk to the Company summarises the history of the Parish Clerks when referring to this charter in the first of the three surviving volumes of returns for the seventeenth century. These volumes are, unfortunately, imperfect, but contain a mine of information on the population and mortality of the latter half of the century.

In 1625 the Company obtained "a decree or act under the seal of the High Commission or Star Chamber for the keeping of a printing press in their hall, in order to the printing of their weekly and general Bills within the City of London and Liberties thereof, for which purpose a printer is assigned by the Archbishop of Canterbury. And on the 18th of July that year a printing press was accordingly set up, and an order then made that from thenceforth the weekly reports of the burials within the circuits thereof should be printed with the number of burials against every parish, which till that time had not been done." Reference is made to this press in some MSS, notes written by the Clerk to the Company in the second of the three surviving volumes of returns for the seventeenth century already mentioned. states that the door of the Hall was to be kept securely locked to prevent unlicensed printing, and that the two Masters and the Upper Wardens were to have keys. The Clerks' Company were obliged under the regulations of the Stationers' Company to give a bond in £500 not to use the press for any other purpose.2

Further regulations were made from time to time involving additional work, and fresh parishes were added in spite of the Clerks' protest. For instance, the Lord Mayor and Aldermen demanded that the state of general

<sup>&</sup>lt;sup>1</sup> See A Collection of the Yearly Bills of Mortality from 1651-1758, publ. 1759, p. 9, and W. Maitland, History of London, 2 vols., 1756, ii, p. 736. <sup>2</sup> Three volumes of Bills of Mortality, in the Guildhall Library, Vol. II.

sickness should be indicated on the Bills, and the Clerks were instructed to add particulars of the sex of those who died. With regard to parishes, St. James', Duke's Place was added in 1626, and Westminster in 1629, but only for plague. In the same year diseases and casualties were added for the first time, thus giving greater accuracy and affording to our modern ears considerable amusement owing to the unusual names given to the diseases.<sup>1</sup>

The year 1636 was an important year for London in the long period of Charles I's personal government. Ship Money had been demanded from London and Southwark, in spite of the City's plea, based on "ancient privileges, grants and Acts of Parliament," that it was exempt from any such obligation to pay. The City had been condemned by the Court of Star Chamber to a heavy fine and the forfeiture of its Irish Estate, and there were many other points at issue between Charles and the City, including questions of corporate monopolies and the restriction of coaches.<sup>2</sup> Charles, determined to rule as well as reign, was anxious to give to the fast developing suburbs some ordered government, and two extensions of government were made in this critical year. The Incorporation of the Suburbs was brought about after protest from the City,3 and a very important extension of the Bills of Mortality took place.

From time to time special occasions had demanded special returns from out-parishes, but in 1636 a definite and permanent inclusion of 6 suburban parishes was made, Hackney and Islington to the north, Stepney to the east, and Lambeth, Newington and Rotherhithe across the river. Christie, the historian of the Parish Clerks, states without corroboration, that this was done by the King's special command, and it seems highly

<sup>&</sup>lt;sup>1</sup> Christie, op. cit., p. 137, using W. Maitland, op. cit.

<sup>&</sup>lt;sup>2</sup> R. R. Sharpe, London and the Kingdoms, Vol. II, pp. 111-17.

<sup>&</sup>lt;sup>3</sup> N. G. Brett-James, A Seventeenth Century L.C.C., in London and Middle-sex Arch. Soc. Record, N.S., Vol. V, part iv, 1928.

probable.<sup>1</sup> No mention, however, is made of the King's intervention in Bell's London's Remembrancer, 2 nor in the record of the enlargement of the area covered by the Bills given in the 1675-93 volume of the Parish Clerks' MSS. Bills.<sup>3</sup> 1636 was a bad year for plague, and this must have had something to do with the extension of the Bills. Of the 6 new parishes to be added, all but Rotherhithe had figured in a printed yearly Bill for 1625, Charles' coronation year, and like his father's a deadly time of plague. This Bill4 is a folio printed sideways and entitled: "A general or great Bill of the whole number of Bills for the Parishes of Westminster, Lambeth, Newington, Stepney, Hackney and Islington from 30 December, 1624, to 22 December, 1625, according to the report made by the Parish Clerks of the said Parishes." Then follows a list of deaths for the various weeks in the various parishes, and they are summarised as follows: -Westminster 2,540, of plague 1,669; Lambeth 631, of plague 389; Newington 864, of plague 403; Stepney 4,089, of plague 3,022; Hackney 270, of plague 171; Islington 342, of plague 242.5

The addition of 6 largely rural parishes increased very considerably the area covered by the Bills, and added districts which were separated from the City by green fields except along the actual highways. In 1603 the area included within the Bills was 1,853 acres, in 1626, 5,875 acres, but in 1636 the figures take an immense

¹ Christie, op. cit., p. 137. The Citizens of London very much objected to the inclusion of so overcrowded a parish as Stepney, which along the river and main roads was overbuilt with small insanitary tenements. It was pointed out that the serious outbreaks of plague in Stepney gave a bad impression to the other part of England, whose inhabitants were chary of visiting London or doing business with the City. This protest was unsuccessful. (See, The Court and Times of Charles I, ii, 244.)

<sup>&</sup>lt;sup>2</sup> John Bell, London's Remembrancer, 1665-6.

<sup>&</sup>lt;sup>3</sup> Guildhall Library. See Maitland, op. cit.

<sup>4</sup> Ibid.

<sup>&</sup>lt;sup>5</sup> Ibid. In 1665 a broadsheet was published giving the several Bills of Mortality for 70 years past, with special reference to the bad plague years of 1592, 1603 and 1625. The figures for 1625, including the 6 parishes mentioned above, are evidently quoted from the Bill referred to, with one or two obvious printer's blunders.

leap forward to 22,538 acres, almost exactly twelve times the original area. By this time the area covered by the Bills had become a clearly defined whole, and the phrase "within the Bills," to be immortalised more than two centuries later by Charles Dickens, was used to denote the Metropolitan area, Greater London.

It is curious that the four new wards into which the King and Privy Council divided the suburbs, when incorporating them into a rival to London, do not cover in any particular the same area as that of the 1636 Bills of Mortality.¹ To anticipate matters a little, it may here be noted also that during Commonwealth times the area "within the Bills" is used as a unit for taxation, the raising of militia and other purposes, though here again there is yet another distinct area frequently mentioned, namely, the districts "within the lines of Communication."²

The Parish Clerks had for many years found their charter inadequate, owing to laxity of rules and inability to enforce them. According to Christie, a new Incorporation was granted on 24 February, 1636, for the "Parish Clerkes of London, liberties of the same, the nine out Parishes and Westminster."<sup>3</sup> This was not adequate, and further efforts were made to secure more effective powers. Archbishop Laud was asked for his support, and he referred the matter to Sir John Lambe, the Dean of the Arches. On 26 February, 1638, the Company appointed a Committee to see the King's Solicitor or other learned Council, who was employed in the securing of the last charter "to take advice concerning some defects supposed to be in the same and how these defects may be amended." In May they made various suggestions as to additions and amendments to their

<sup>&</sup>lt;sup>1</sup> See N. G. Brett-James, A Seventeenth Century L.C.C., in London and Middlesex Arch. Soc. Records, N.S., Vol. V, part iv, 1928.

<sup>&</sup>lt;sup>2</sup> Frequent references in Acts and Ordinances of the Interregnum.

<sup>&</sup>lt;sup>3</sup> Christie, op. cit., p. 123, from the Minutes of the Company dating from 1610.

Charter, and presented to the King in Council their "humble requests."

They asked to be incorporated by the name of "Master, Wardens, Assistants and Brethren of the Parish Clerks of the City and Suburbs of London and the Liberties thereof, the City of Westminster and the Borough of Southwark, and the 15 outparishes adjacent." Presumably the terms of the preceding charter were not sufficiently specific. They wished their duties to apply to any new buildings which had been or which should be erected, and where there was no Parish Clerk someone was to be appointed to make the weekly returns. No one unauthorised was to publish Bills of Mortality, and the searchers were to report to the Clerk of the Parish twice weekly, and the Clerks, in view of the many duties thrust upon them, were entitled to appoint substitutes to dig the graves and ring the bells. New companies and incorporations were in the air, and their inauguration provided a steady source of income for the Crown. At the same time they were a means of profit for others in and about the Court. The Parish Clerks found that their new Charter cost them in presents and dues a total of over £88, including a clock to Archbishop Laud, costing £22, a salmon (£2 6s. 6d.) and 10 sugar loaves (4 guineas); various fees to the King's Solicitor and Mr. Sidney, his Clerk, and to the gentlemen of the Lord Keeper, Lord Treasurer and Lord Chief Justice.<sup>2</sup> Possibly the beginning of the Scottish wars delayed the progress of their Charter, but on 17 February, 1640. the Charter arrived, a week after the above-mentioned gift of sugar loaves.

The Parish Clerks of the Suburbs were thus incorporated and the bounds of the area included within their purview was definitely fixed.<sup>3</sup> As from time to time

3 Calendar, S.P. Dom., 1638-9, p. 261.

<sup>&</sup>lt;sup>1</sup> State Papers Domestic, Charles I, ccccviii, no. 63. Calendar, S.P. Dom., 1638-9, p. 261.

<sup>&</sup>lt;sup>2</sup> Wardens' Accounts for 1637 and 1640, quoted by Christie, op. cit., pp. 124, 125.

the number of parishes was increased by subdivision, the cost of producing the Bills also increased and new forms were needed, for which the Company was duly compensated. But the actual extent over which the Parish Clerks were responsible remained much the same for some centuries.

Reference has been made to the ancient women who acted as searchers to inform the clerks as to the number of dead and the cause of decease. Strype gives an account of the methods which were employed and they do not inspire confidence. Although he was writing long after the institution of the Bills, there does not seem any reason to suppose that the methods were greatly "These Bills," he writes, "are made and composed after this manner. When anyone dieth in a Parish, either the tolling or ringing of the bell or the bespeaking of a grave intimateth it to the searchers, who also keep a correspondence with the Sexton; and thereupon the Ancient Matrons, sworn to that office, repair to the place where the dead corpse lieth; and upon their own view and other examination, make a judgment by what disease or casualty the person died; which judgment they report to the Parish-Clerk; as he doth, every Tuesday night, the account of every Christening or Burial that week to the Clerk of the Hall. Whence on Wednesday the general account is made up and printed, and on Thursday published." These haphazard methods, and especially the lack of qualifications on the part of the searchers, must have led to inaccuracies. It is true that vestrymen or overseers were responsible for choosing them, and they were sworn before a Justice of the Peace or the Dean of Arches.2 But the ignorance of medicine and disease, which was only natural, and in many cases their abject poverty made the searchers unusally open to a small bribe to conceal the real cause of the deaths which they professed to investigate. Captain John

<sup>1</sup> Strype's edition of Stow's Survey (1720), book v, 448-9.

<sup>&</sup>lt;sup>2</sup> John Bell, London's Remembrances, 1665.

Graunt, in his observations on the Bills of Mortality published four years before the Great Plague, 1 gives it as his opinion that the records of 1592 were more reliable than those of 70 years later. What could be expected of the old women searchers, who "after the aid of a cup of ale and the bribe of two groat fee, cannot tell whether the emaciation or leanness were from a phthisis or from a hectic fever." The parishes, he points out, made the search still more unreliable, by appointing as searchers those who would otherwise have come upon the rates, thus combining economy with inaccuracy. It would be interesting if one could discover something of the kind of life lived by these women, but they seem to have passed almost unnoticed, and even Defoe has little if anything to say about them. They were first appointed in 1578, when "two honest and discreet matrons" were chosen for each parish and required to report on all who died of plague, and themselves to keep away from the healthv. Five years later, viewers were appointed, evidently for much the same purpose, and they were to be "Sober ancient women." The first use of the term "searcher" in this connection seems to be in Romeo and *Juliet*, where Friar John is prevented by the searchers at Verona from carrying the letter of Friar Laurence to Romeo at Mantua, owing to the prevalence of plague.4 We glean a few facts about the searchers from the records of St. Martin's-in-the-Fields in 1593, a bad plague year, when 3 men and 3 women were appointed for the parish, sworn before a Justice of the Peace, and lodged in a special house provided for them.5

The names of some of the searchers are recorded in

<sup>&</sup>lt;sup>1</sup> John Graunt, Observations (op. cit.).

<sup>&</sup>lt;sup>2</sup> Strype's edition of Stow's Survey, 1720, V, pp. 448-9.

<sup>3</sup> Romeo and Juliet, act v, scene ii, line 8.

<sup>&</sup>lt;sup>4</sup> See F. P. Wilson, The Plague in Shakespeare's London, and Oxford English Dictionary.

<sup>&</sup>lt;sup>5</sup> J. McMaster, A Short History of the Royal Parish of St. Martin's-in-the-Fields, 1916, p. 197. See also J. V. Kitto, St. Martin's, Accounts of the Churchwardens.

the Churchwardens' account for July, 1593:—"Chosen to be bearers and searchers for men, John Bellows xij d, William Baylie xij d . . . these are chosen searchers for women, goodwif Bellows xviij d, goodwif Baylie xviij d.

Stepney, at the opposite end of London, furnishes a few facts about the searchers. Under the date September, 1617, we read "It is ordered that there shall be chosen in every hamlet two fit aged women to search and view the bodies of everyone deceased, for the prevention of infection, to be named and appointed by the churchwardens of every hamlet, with the assistance of one or two of the vestrymen of the said parish and hamlet, and the said searchers to have 2d. apiece for every body they shall view and search, to be paid by the governor of the house where such body dieth and is viewed, and if they shall not be able to pay the said 2d., then the said money is to be satisfied and paid by the collector for the poor for the time being." At a vestry meeting in 1625 we read of "Mary Oswell and Elizabeth Scott of Ratcliffe were chosen to be searchers in case and fear of contagion of sickness now suspected. And Joane Hassam and Rose Write of Limehouse are chosen to be searchers of the dead bodies in the Hamlet of Limehouse."2 The scheduled charge of 2d. per body paid to searchers was probably increased in actual plague time, and from the Churchwardens' accounts for 1665-6 in Westminster, we find that a searcher was paid a round sum of one pound for a fortnight's work, while "ij potts of beare" were given to the searchers "afore they went into the house."3

<sup>&</sup>lt;sup>1</sup> G. W. Hill and W. H. Frere, Memorials of Stepney Parish, 1890-91, p. 78.

<sup>&</sup>lt;sup>2</sup> Hill and Frere, op. cit., p. 105.

<sup>&</sup>lt;sup>3</sup> Rev. H. F. Westlake, St. Margaret's, Westminster, 1914, pp. 74 and 76. In the Reading Records, J. M. Guilding, 1892 (Vol. II, p. 241, 1625), quoted by Miss A. Clark, Working Life of Women in the Seventeenth Century, 1919, there is a mention of searchers. "Marye Jerome, Wydowe, was sworn to be a viewer and searcher of all the bodies that shall dye within this boroughe, and truly to report and certifye to her knowledge of what disease they dyed, etc.; and Anne Lovejoy, jurata, 4s. a weeke a peice,

It was ordered that the ancient women should report the deaths to the Parish Clerks at regular specified times. generally by Tuesday, though in plague years it was probably necessary for their lists to be sent in more frequently. A box for their papers was provided in 1627 on the Hall staircase of the Parish Clerks' Hall.<sup>1</sup> Before 8 a.m. on Thursday mornings the Bills had to be ready and delivered to the King and to the Lord Mayor, and by 10 a.m. copies were on sale. Bundles of these were delivered to the Clerks at 16d. a quire, or 8d. without details of diseases, and they were retailed to the general public at 1d. a sheet or 4s. a year. There were frequent disputes about the sale of the sheets by parish clerks in other parishes than their own, and hawkers would get hold of copies and endeavour to make a profit by their sale.2

During the period of the Civil War and Commonwealth the Bills apparently continued, though there is little evidence on the subject. In 1647 St. Paul's, Covent Garden, was added to the list of parishes, but this was only a subdivision, so that no increase in area took place.<sup>3</sup> A difficulty had occurred from time to time in securing returns from some of the out parishes, and in 1650 an order was obtained by the Parish Clerks that returns must be sent in by every parish in the Schedule. If there were no clerks, then the responsibility was put on the shoulders of the churchwardens, and defaulters were to be proceeded against through the ordinary channels.<sup>4</sup> The period of Cromwell's Protectorate was marked by many innovations, some of them extremely modern in their ideas, and in 1653 an

allowing iiij a moneth after." "Mary Holte was sworne to be a searcher of the dead bodyes henceforth dying within the boroughe (being thereunto required, having iiijs. a weeke for her wages, and iijd. a corps carrying to buryall, and iiijs. a weeke, a moneth after the ceassinge of the plague."

<sup>1</sup> Rev. John Christie, History of the Parish Clerks' Company, p. 139.

<sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Cp. Maitland, op. cit., p. 739.

<sup>4</sup> Christie, op. cit., p. 140.

Act was passed ordering the Registration of Births. Marriages and Deaths, and the publication of Banns in the Market Places.<sup>1</sup> In order to improve the accuracy of their returns, the Parish Clerks suggested putting Births instead of Christenings into the Bill, and fees were definitely fixed for the various duties to be performed, twelvepence for Banns or Marriage, fourpence for Births or Deaths.<sup>2</sup> Under Richard Cromwell, returns were demanded from the Clerks by the Aldermen and these were to be returned to the Sergeant of the Channel for the Lord Protector, "as they had been in the time of the late King."3 This phrase raises the interesting question as to their returns during Oliver's Protectorate. Had they been sent in as usual, or was he content with vearly Bills and the registration of births, marriages and deaths? Unfortunately the Parish Clerks' Registers prior to 1664 are missing, having been lent to Captain Graunt for the purposes of his Observations and apparently never returned to the Company.4

Various attempts were made under Charles II to stiffen up the returns, and the Clerks were instructed to show the Bills to the Lord Mayor before they were printed.<sup>5</sup> In September, 1661, the Company proposed to furnish more correct *Bills of Mortality*, and to give in addition a register of Births, Marriages and Deaths, as had been done under the Commonwealth. This proposal was handed to the Solicitor-General for his observations.<sup>6</sup>

On 9 December, 1664, there was presented to the

<sup>&</sup>lt;sup>1</sup> Ibid. <sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Christie, op. cit., p. 140. In the Guildhall Library there are yearly Bills for 1652, 1653 and 1658.

<sup>&</sup>lt;sup>4</sup> Maitland writes that: "the Company are of the opinion that the same was lent to Mr. Graunt, to enable him to write his Natural and Political Observations, and by some accident never returned." Maitland, History of London, II, 738. There is, however, an imperfect series of weekly Bills from 1636-83, in the Bodleian Library, Gough's Adds. Lond., 40, 95, mentioned in F. P. Wilson, The Plague in Shakespeare's London, 1927.

<sup>&</sup>lt;sup>5</sup> Christie, op. cit.

<sup>&</sup>lt;sup>6</sup> P.R.O. Privy Council Registers, P.C. 2-55, p. 372.

King a humble petition of the Company of Parish Clerks, in which they state that they have faithfully endeavoured to carry out their duties, but that they are conscious of the imperfection of their records.

This is due to the irregularity of the ministers, the numbers of unlicensed ministers who send no returns. the removal of dead bodies from one parish to another, especially to private burial grounds, and lastly the want of honest and able searchers duly sworn and appointed in the out-parishes. They further emphasized the need for reform, because by slack methods "faction [is] promoted, the horrid sins of adultery and fornication and bastardy [are] in danger to be hidden and encouraged, the exposing and destroying of infants more securely practised, lewd and incontinent persons escape punishment, and disease, though never so infectious, and murthers passe concealed and undiscovered."1

A Committee of the Privy Council was appointed to consider and report, but, before anything could be done, the Parish Clerks were faced with the greatest task in all their long history, the registration of the Great Plague. This disastrous visitation, so vividly described by Defoe in somewhat fictitious form, has been set down in all its lurid details by Mr. Walter Bell, whose plain documented facts bring home the tragedy of that terrible year even more realistically than the Journal of the Plague.2 The task of recording the plague was beyond the efforts of the Parish Clerks, and, in the first few weeks, several of them concealed the outbreak in the hope that it would soon die down. When it broke out with renewed vigour, many of them fell victims, and there is a well-known story of the clerk who fell dead while trying to place on record the members of his parishioners who, like himself, were victims of the dire visitation.3

P.C. Registers, 2-57, 9 Dec., 1664.
 W. G. Bell, The Great Plague of London.
 Quoted by Mr. Bell, op. cit., but without reference.

The essays of John Graunt on the Bills of Mortality, and the certainty that the returns of the plague year were inaccurate must have created a great deal of uneasiness. Graunt's criticism of the searchers, and his view that the Bills of 1592 were more accurate than those of 70 vears later were severe but probably well deserved. John Bell, the Clerk to the Parish Clerks' Company, felt that some defence was needful, and he makes it in his preface to the General or Whole Year's Bill for 1665.1 "Searchers," he writes, "are generally ancient women, and I think are therefore most fit for their office. I am they are chosen by some of the eminentest men of the parish to which they stand related; and if any of their choosers should speak against their abilities they would much disparage their own judgments. And after such choice they are examined touching their sufficiency and sworn to that office by the Dean of Arches or some Justice of the Peace as the cause shall require. As for the Clerks' returns, I dare affirm that they were never more punctual in the discharge of their duties than at this day." The Clerks, as well as the searchers, were sworn, and Bell adds, "I presume there cannot be a stricter obligation than an oath to bind any person." Later writers have not endorsed Bell's claims for the accuracy of the Parish Clerks' Records. Writing nearly a century later than Bell, Dr. Birch or Dr. Heberden in 1759, one of them the presumed author of the preface to a Collection of Yearly Bills for the preceding century, writes of "the neglect of the Parish Clerks and their deputies in not making accurate returns," and speaks of weeks without any returns being sent in.2 Dr. Ogle, on the contrary, in his statistical work already mentioned, compares the Parish Clerks' returns in the Bills of

<sup>&</sup>lt;sup>1</sup> John Bell, London's Remembrancer; or, a true account of every particular Week's Christenings and Mortality in all the years of Pestilence, etc., 1665. Cf. London's Dreadful Visitation; or, a Collection of all the Bills of Mortality for the Present Year, etc., by the Company of Parish Clerks of London, 1665.

<sup>&</sup>lt;sup>2</sup> Dr. Birch or Dr. Heberden, A Collection of the Yearly Bills of Mortality from 1651-1758, publ. 1759.

Mortality with the entries in the Parish Registers, and, though he found at times considerable discrepancies, yet on the whole he was inclined to commend their general accuracy. In his authoritative story of the Great Plague, Mr. Walter Bell gives many examples of inaccuracy, and criticises very adversely the Mortality Returns. For the benefit of the Parish Clerks it may be said that accuracy could hardly be expected at such a time of widespread devastation.

As evidence of slackness, however, in time of less strain, it should be mentioned that at the end of the seventeenth century there are serious lacunæ in the Parish Clerks' Registers, now in the Guildhall Library. The weekly records are missing from 23 July to 3 August, 1697, 14–21 December, 1697, 1–8, February, 1697–8 and 31 October to 18 December, 1699.

The difficulties of the Parish Clerks were increased by the unwillingness of the Nonconformists to render an account of their births, marriages and deaths. Their places of worship were increasing in number, especially after the Declaration of Indulgence of 1672, and the increase in the number of their burial grounds and those of a more public character made strict accuracy almost impossible. The Toleration Act of William and Mary did not help matters in this respect, and complaints were made that Nonconformists and Quakers sent in no returns of baptisms, and that several liberties and precincts, notably St. Paul's, the Temple, the Tower and various hospitals sent no returns either. By the end of the seventeenth century there had been several subdivisions of parishes which increased the number without adding to the area, but the necessity for this division points to considerable increase in population. Paul's, Shadwell, was made a parish in 1670, Christ Church, Paris Garden, in 1671, St. James's, Westminster,

<sup>&</sup>lt;sup>1</sup> Dr. Ogle, Transactions of the Royal Statistical Society, September, 1892, pp. 437-460.

in 1685, St. Anne's, Westminster, in 1686 and St. John's, Wapping, in 1694.<sup>1</sup>

Having sketched the history of the Bills of Mortality down to the close of the century, it might be of interest to note the various changes made from time to time in the form of the Bills.

In the early Bills for the years 1602–24, the Royal Arms were on the left-hand side at the top of the Bill, and those of the City on the right, but in the 1624–5 Bill the arms of the Parish Clerks' Company were substituted for those of the City. The yearly Bill for 1602–3 is possibly the first of the series, and in view of the somewhat prevalent idea that the prefix "Saint" was first dropped during the days of the Commonwealth, it is of interest to find it omitted in the names of the Parishes contained in this Bill.

This Annual Bill for 1602-3 gives for the first half of the year, that is, from 23 December, 1602, to 14 July, 1603, a record only for the 96 parishes of "London within the Wals" and the 16 parishes of "London without the Wals and within the Liberties." After July 14 there was added "the number of every Severall Parish, as well within the Citie of London and the Liberties thereof, as in other Parishes in the Skirts of the Citie and out of the Freedomg, adioynine to the Citie."<sup>2</sup>

The parishes were arranged in 2 columns from 1603 to 1624, but in 1624-5, when the arms of the City were replaced by those of the Parish Clerks, the parishes were put into 3 columns and in 1629 into 4, and a schedule of

<sup>&</sup>lt;sup>1</sup> See W. J. Loftie, *History of London*, Supplement to first edition, where there is a map of the parishes from time to time included in the *Bills of Mortality*.

<sup>&</sup>lt;sup>2</sup> Facsimiles of Bills of Mortality are to be found in Traill and Mann, Social England, III, p. 195 (part of a weekly Bill for 23 Nov., 1632(?); Ten Years' Growth of the City of London, 1891, where there is reproduced an October Bill of 1603 and the General Bill for 1665; W. G. Bell, The Great Plague of London, 1924, where there is the same General Bill for 1665 and an August Bill of the same year; and F. P. Wilson, The Plague in Shakespeare's London, 1927, where there is the same October Bill of 1603 and the General Bill for 1603, the General Bill for 1625 and weekly Bills for February, 1608-9, and December, 1625.

diseases was added. From time to time this list varied. but a complete record of all the various diseases and misadventures gives a picture of the various ills to which our ancestors were liable and a striking comment on their faulty diagnosis and nomenclature. When the Bills reached a more or less regular form there were 62 different diseases scheduled, of which plague in its worst years is always the most deadly, but there are others which take a bill toll of human life. Ague and Fever. Consumption, Dropsy, Spotted Fever and teeth periodically slay their thousands, but plague its ten thousands. Here is the full list:—Abortive and Stillborne, Affrighted, Aged and Bedrid, Ague and Feaver, Appolex and Meagrome, Appoplex and Convulsion, Bit with a Mad dogge, Blasted and plannet, Bleeding, Bloody Flux Scowring and Flux, Brused Issues Sores and Ulcers, Burnt and Scalded, Burnt by misfortune, Burst and Rupture. Burst, Calenture, Cancer and Woolfe, Canker, Childbed, Chrisomes and Infants, Choked with a piece of meat, Collicke and Winde, Collicke Stone and Strangury, Cold and Cough, Consumption and Cough, Consumption, Consumption and Tissicke, Convulsion, Could, Convulsion and Stick. Convulsion and Crampe, Costive, Crampe, Cut of the Stone, Cutting of a wenne, Dead in the Street and Fields and Starved, Dropsie, Swelling and Timpany, Drowned, Executed, Executed and pressed to death, Falling Sicknesse, Feaver, Fistula, Flocks and Small Pox. French Pox. Frets, Gangrene, Goute, Greene Sicknesse, Griefe, Headach and Head Mouldshot, Iaundies, Iawfalne, Impostume, Kild by severall accidents, King's Evill, Leprosie, Lethargie, Livergrowne and Rickets, Lunatique, Made away themselves, Meagrome and Headache, Measles, Mother, Murthered, Overlaid and Starved at Nurse, Palsie, Piles, Plague, Planet, Plurisie and Spleene, Purples and Spotted Feaver, Quinsie, Rising of the Lights, Rising of the Lights and Mother, Scalded, Schurvey, Scurvy, Sores Broken and Bruised Limbs, Sore Mouth and Thrush, Sciatica, Sore

Breast, Stopping of the Stomacke, Shingles, Stifled in Mud, Suddenly, Surfet, Swine Pox, Starved at Nurse, Stilborne, Scurvey and Itch, Teeth, Timpanie, Tissicke, Thrush and Sore Mouth, Vomiting, Water in heade, Weane, Wormes, Wounded at Sea.

The introduction of the 7 extra parishes in 1636 necessitated a fresh form and these returns were printed in small type at the foot of the Bill, after the totals had been scheduled and added. A Bill of 1652 has the arms of London on the left and those of the Parish Clerks on the right, and it may be presumed that the omission of the Royal Arms dated from 1648–9.

Charles II's restoration was the occasion of a new Bill, with all the 130 Parishes scheduled in 4 groups, and with all the names preceded by "St." The 97 parishes within and the 16 without are printed as before, but then follows a group of 12 out parishes in Middlesex and Surrey—St. Giles, Hackney, Clerkenwell, St. Katherine's, Lambeth, Shoreditch, Bermondsey, Newington, Islington, Whitechapel, Redriffe and Stepney; and finally the 5 parishes in the City and Liberties of Westminster. This Bill has the Royal Arms on the left and the Arms of the Parish Clerks on the right, but in 1666–7, when the Fire had necessitated fresh printing, the City Arms appear once more on the right.

The three folio volumes of Records for the latter half of the seventeenth century, forming part of an immense series preserved in the Guildhall Library and continuing into the nineteenth century, indicate the method adopted by the Parish Clerks to record the weekly mortality from which the Bills were compiled. Each page is headed as follows:—

LONDON. From the . . . to the . . . 16 . . .

Then follows the printed schedule of parishes with a space to enter the numbers. There is no printed list of "Diseases and Casualties this Week," but an inventory varying slight each week is written in by hand. Next

follows spaces for the Totals, the Christenings of Males and Females, and the total, the same for Burials and for Plague. Then comes the Increase or Decrease from week to week, the number of parishes clear of Plague and those infected, and finally the Assize of Bread. "A penny wheaten loaf to contain . . . ."

It is not surprising that the Plague and Fire hampered the Parish Clerks, as many of them died of the disease and their Hall perished in the flames. A contemporary hand has written in a weekly return for 21-28 August, 1666, "On Sondaie Morning about 2 of the Clock a Baker's house in Pudding Lane was burnt down with a casuall fire, which so suddenly encroached that it staid not till it had burnt down all the Citie in the walle except Bishopsgate and Leadenhall, with some houses upon London Wall and consumed all the Suburbs without Ludgate and Newgate, Temple Bar and Clerkenwell." As a result of the Fire thus succinctly described, the Parish Clerks thought it necessary to give returns only for the 26 parishes within the walls "now standing," 14 within the Liberties "now standing," besides the 12 in Middlesex and Surrey and the 5 in Westminster, not affected by the Fire. This skeleton return went on from 25 September, 1666, until 16-23 April, 1667. that week there are only 8 parishes mentioned within the Walls, but that would seem to be either a temporary change or a mistake, seeing that in the following week the number is once again 16. In the yearly Bill for the period 18 December, 1666, to 17 December, 1667, the number of parishes is 16—14—12—5, but in the Yearly Bill for 1668-9 there are 97-16-12-5 and in the last weekly Bill for December, 1669, there are the same numbers. In 1671–72 all the parishes in the City are active save 5, All Hallows, Honey Lane; St. Margaret's, New Fish Street; St. Mary, Woolchurch; St. Michael, Queenhithe, and St. Peter's, Cheapside; none of which churches was rebuilt. In the week 20-27 December, 1671, the 16 parishes in the Liberties became 17 by the

inclusion of Christ Church, Paris Garden, and similarly in April of the same year the 12 in Middlesex and Surrey became 13 by the addition of St. Paul's, Shadwell. In 1672–73 the schedule of figures is 97—17—13—5, but in 1673–4 Christ Church is placed in Surrey, which alters the figures to 97 in the City, 16 in the Liberties, 14 in Middlesex and Surrey and 5 in Westminster.

In 1680, 13–20 July, without any apparent cause the weekly Bills are decorated with a black border which continues. All through the seventeenth century the same form was used, but more than half the third volume is wasted because of the heading 16.., which could have been altered, had the Parish Clerks been economically minded. In the yearly Bill for 1699–1700, Diseases and Casualties are wisely separated, presumably for the first time.

The system of returns went on in much the same way until 1859, long enough for the phrase "within the Bills" to be immortalised by Dickens in Little Dorrit. came the Registrar-General's Reports, but the yearly Bills of Mortality continued until 1850 and the weekly Bills till 1859. The modern system of returns for Births, Marriages and Deaths has been in existence long enough to justify its establishment. In view of the chaotic condition of the suburbs, so graphically depicted by Mrs. George in her survey of London in the eighteenth century, it is of supreme interest to note that in two respects at least the chaos could have been avoided. Had Charles I's scheme for the Incorporation of the Suburbs been allowed to mature, the organisation would have been far more efficient; and had Cromwell's returns of Births, Marriages and Deaths been perpetuated, the appalling condition of the suburbs in the eighteenth century would have been far more noticed. A central authority, faced with the weekly returns, would have been obliged to consider ways and means for remedying the disasters of disease, overcrowding and crime. The prestige and power, which a body controlling wellorganised suburbs would have possessed, would have made it possible to carry through effective reforms, and to give to the fringe of London that disciplined order which the centre had so long enjoyed.

## APPENDIX.

There are four weekly bills extant, dating before 1600:-

- (a) For the week ending 23 November, 1532 (?) (B.M., Egerton MS. 2603, f. 4), part reproduced in Traill and Mann, Social England, 1902 (illustr.), iii, p. 195.
- (b) For 2 weeks, 5-14 August, 1535, State Papers, Henry VIII, § 49, ff. 219-226. See C. Creighton, History of Epidemics, 1891, i, pp. 296-9.
- (c) Week ending 22 November, 1582. Hist. MSS. Comm.: Salisbury MSS., part xiii, p. 212. See Creighton, op. cit.

The Sloane Bill for 1563 mentioned by Maitland, *History of London*, 1756, ii, 731, could not be found in the B.M. by C. H. Hull, *Economic Papers of Sir William Petty*.

There is a yearly bill for 1581-2, framed, in the Parish Clerks' Hall, Silver Street, London.

For the seventeenth century there are:-

- (a) Three volumes out of a long series of 131 volumes of printed forms, used by the Parish Clerks' Company and filled up by them each week in MS. These continued until 1829, and those for the seventeenth century comprise bills from 20 December, 1664, to 16 January, 1698-9.
- (b) There are also separate weekly published bills for 2 weeks in 1603, those ending 20 October and 3 November (Guildhall Library); I week in 1607, 12 November (S.P. Dom. James I, Vol. 28, No. 88); 2 weeks in 1609, 23 February, 1609 (Trinity College, Dublin), 17 August (S.P. Dom. James I, Vol. 47, Nos. 85, 86, MS., not printed); I week in 1613, 15 April (B.M., Reg. 7, cxvi, bff. 154–157); and 4 weeks in 1625, 21 July (Bodleian MS., Rawl. D. 859), 11 August (B.M. 1298 m. 11(18), 27 October and 15 December (Bodleian MS., Rawl. D. 859). There is a blank bill, dated 1610 (S.P. Dom. J. I., Vol. 58, No. 102).
- (c) F. P. Wilson, The Plague in Shakespeare's London, has found an unnoticed and very important series of weekly bills from 1636-1683 (Bodleian, Gough, Add. London, 4°, 95).
- (d) There are weekly bills from 1662-1680 in the Guildhall Library, and from 1665-1700 in the B.M.

Of Yearly Bills only those for plague years seem at first to have been printed, and the Bills for 1603 and 1625 are extant both in the Guildhall and in Bodleian MS., Rawl. D. 859.

There is a Yearly Bill for 1625 for Westminster, Lambeth, Newington, Stepney, Hackney and Islington in the Guildhall and the Bodleian Libraries and in S.P. Dom., Ch. I, Vol. 12, No. 39. There are London Bills for 1629–1636, 1641, 1652–3, 1658, 1660 in the Guildhall, and for 1658 onwards in the B.M.

In the Guildhall Library there are two bound volumes entitled London's Remembrancer, Bills of Mortality, 1661–1671 (Vol. I) and 1671–1680 (Vol. II).

Volume I contains London's Remembrancer, a pamphlet by John Bell, published in 1665, with an account of 18 years of births and deaths, and bound in with it are a yearly bill for 1661, weekly bills from 11 February, 1661–2, to 25 November, 1662 (except the weeks 18 February—4 March, 11 March—25 March, 1 April—21 April, 29 April—5 May, 13 May—5 August); a yearly bill for 1663, 53 weekly bills for 1663–4 from 15 December, 1663—20 December, 1664; also London's Dreadful Visitation, published by the Parish Clerks, 1665; 52 weekly bills, from 20 December, 1664—19 December, 1665—28 August, 1666; then follow 4 weeks omitted due to the fire; then skeleton weekly bills, Nos. 41–52, with 16 parishes within the walls, 14 without, 12 out parishes in Middlesex and Surrey, and 5 in Westminster. At the foot of paper 36 is a short MS. note of the Great Fire.

There are also a yearly bill for 1666, 52 weekly bills, with a limited number of parishes from 18 December, 1666—17 December, 1667; a skeleton yearly bill for 1667, 53 weekly bills from 17 December, 1667—22 December, 1668, yearly bill for 1668, 52 weekly bills from 22 December, 1668—21 December, 1669, yearly bill for 1669; then 52 complete weekly bills from 21 December, 1669—20 December, 1670, perhaps due to Charles II's 2nd Building Act, yearly bill for 1670; 52 weekly bills from 20 December, 1670—19 December, 1671, yearly bill for 1671.

The second volume has complete weekly and yearly bills from 19 December, 1671—14 December, 1680, except that the week 15-22 December, 1674, is missing.

In the Guildhall Library there is a volume (Granger, 5.2.3), which contains collected yearly bills for 1602-3, 1624-5, 1624-5 for the outparishes, 1629-1635, 1636 (with Westminster, Islington, Lambeth, Stepney, Newington, Hackney and Redriff added), 1652, 1653, 1658 (these three rendered to the Rt. Hon. the Lord Mayor) and 1660. It also has several broadsheets headed "Lord, have mercy upon us," one for 1636 with a comparison of the three plague years 1603, 1625

and 1636, filled in up to 14 July with spaces for the rest and filled in up to 21 of December by hand, with the 7 outparishes; another broadsheet with similar heading comparing the same three years with 1592–3 and with the same 7 parishes added between 14 and 21 April, 1636; another broadsheet, General Bills of Mortality for 73 Years, comparing the other years with 1638 and 1665; another, Lord, have mercy, comparing 1592, 1603, 1625, 1630, 1636, 1637 with MS. notes of burials and plague for the parish of St. Martin's-in-the-Field, and The Mourning Cross, comparing the same year and 1665.

Of contemporary writers on the Bills of Mortality there should be noted:

- (a) Captain John Graunt, Natural and Political Observations . . . upon the Bills of Mortality, 1662, who gives the yearly totals from 1604-1664.
- (b) Sir William Petty, Observations upon the Dublin Bills of Mortality, 1683, in which occurs the suggestion that he was the author of (a), and in which there are a few references to the London Observations.
- (c) John Bell, London's Remembrancer, or a true account of every particular week's christenings and mortality, in all the years of pestilence within the cognisance of the Bills of Mortality, 1665, gives weekly totals for 1605–1610, 1624–5, 1629–30, 1635–37, 1639–47, 1664–65.
- (d) The State Papers Domestic contain many summaries from the weekly bills, and some of these are mentioned in the text.

The Bills are discussed by the following later writers:

- (a) William Maitland, History of London, 1756, p. 736 seq.
- (b) A Collection of the Yearly Bills of Mortality, 1651-1758 (publ. 1759), attributed to Dr. Heberden or Dr. Birch.
- (c) Cornelius Walford, Transactions of the Royal Historical Society, 1878, Vol. VII, p. 212, and Insurance Cyclopaedia under Bills of Mortality.
- (d) James Christie, History of the Company of Parish Clerks, 1893.
- (e) C. Creighton, History of Epidemics, 1891, 2 vols.
- (f) F. W. Ogle, Transactions of the Royal Statistical Society, September, 1892, pp. 437-460.
- (g) C. H. Hull, The Economic Writings of Sir William Petty, 1899, 2 vols. This also includes a reprint of Graunt's Observations.
- (h) C. Brend, Transactions of the Medico-Legal Society, 1907-8.
- (i) F. P. Wilson, The Plague in Shakespeare's London, 1927.