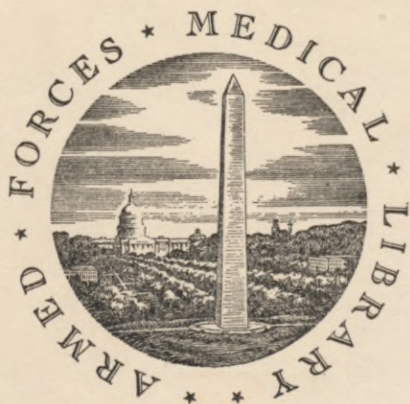


UNITED STATES OF AMERICA



FOUNDED 1836

WASHINGTON, D.C.



sig. K 2-K 3, photostats, Harvard, School of
Business Administration

16 Ap 48

ajs

Natural and Political
OBSERVATIONS,

Mentioned in a following INDEX,
and made upon the
Bills of Mortality.

By **JOHN GRAUNT,**

Citizen of

L O N D O N.

With reference to the *Government, Religion, Trade,*
Growth, Ayr, Diseases, and the several Changes of the
said **CITY.**

— *Non, me ut miretur Turba, laboro,*
Contentus paucis Lectoribus. —

The Second EDITION.

L O N D O N,

Printed by *Tho: Roycroft,* for *John Martin, James Allestry,*
and *Tho: Dicus,* at the Sign of the Bell in *St. Paul's*
Church-yard, **MDCLXII.**



Natural and Political

OBSTACLES

Mentioned in a following Index

and made upon the

Bills of Mortality

BY JOHN GARRICK

Citizen of

LONDON

With references to the Government, Religion, Trade,
Great Art, Disputes, and the several Changes of the
said City.

Now, as in former Editions,
Continues to be sold at

The Second Edition

LONDON,

Printed by Tho: Rogers, for John Martin, near St. Dunstons,
and Tho: Dine, at the Sign of the Bell in St. Pauls
Church-yard, MDCLXXII. 1672

TO THE
RIGHT HONOURABLE

JOHN Lord ROBERTS, Baron of
Truro, Lord Privie-Seal, and one of his Majestie's
most Honourable Privie Council.

My Lord,



S the favours I have received from your Lordship oblige me to present you with some token of my *gratitude*: so the especial Honour I have for your Lordship hath made me *sollicitous* in the choice of the *Present*. For, if I could have given your Lordship any choice *Excerptions* out of the *Greek*, or *Latine* Learning, I should (according to our *English Proverb*) thereby but carry Coals to *Newcastle*, and but give your Lordship *Puddle-water*, who, by your own eminent *Knowledge* in those learned *Languagues*, can drink out of the very *Fountains* your self.

Moreover, to present your Lordship with tedious *Narrations*, were but to speak my own *Ignorance* of the *Value*, which his Majesty, and the Publick have of your Lordship's Time. And in brief, to offer any thing like what is already in other Books, were but to derogate from your Lordship's learning, which the World knows to be universal, and unacquainted with few useful things contained in any of them.

Now having (I know not by what accident) engaged my thoughts upon the *Bills of Mortality*, and so far succeeded therein, as to have reduced several great confused *Volumes* into a few perspicuous *Tables*, and abridg-

The Epistle Dedicatory.

ed such *Observations* as naturally flowed from them, into a few succinct *Paragraphs*, without any long Series of *multiloquious Deductions*, I have presumed to sacrifice these my small, but first publish'd, *Labours* unto your Lordship, as unto whose benigne acceptance of some other of my *Papers*, even the Birth of these is due; hoping (if I may without vanity say it) they may be of as much use to Persons in your Lordship's place, as they are of little or none to me, which is no more then the fairest *Diamonds* are to the *Journey-man Jeweller* that works them, or the poor *Labourer* that first dig'd them from the Earth. For with all humble submission to your Lordship, I conceive, That it doth not ill-become a *Peer of the Parliament*, or *Member of his Majesty's Council*, to consider how few starve of the many that beg: That the irreligious *Proposals* of some, to multiply People by *Polygamy*, is withall irrational, and fruitless: That the troublesome seclusions in the *Plague-time* is not a remedy to be purchased at vast inconveniencies: That the greatest *Plagues* of the City are equally, and quickly repaired from the Country: That the wasting of *Males* by Wars, and Colonies do not prejudice the due proportion between them and *Females*: That the Opinions of *Plagues* accompanying the Entrance of *Kings*, is false, and seditious: That *London*, the *Metropolis* of *England*, is perhaps a Head too big for the Body, and possibly too strong: That this Head grows three times as fast as the Body unto which it belongs, that is, It doubles its People in a third part of the time: That our *Parishes* are now grown madly disproportionable: That our *Temples* are not sutable to our *Religion*: That the *Trade*, and very *City of London* removes *Westward*: That the walled City is but a one fifth of the whole Pyle: That

The Epistle Dedicatory.

That the old Streets are unfit for the present frequencie of *Coaches*: That the passage of *Ludgate* is a throat too straight for the Body: That the fighting men about *London* are able to make three as great Armies, as can be of use in this *Island*: That the number of Heads is such, as hath certainly much deceived some of our *Senatours* in their appointments of *Poll-money*, &c. Now, although your Lordship's most excellent Discourses have well informed me, That your Lordship is no stranger to all these *Positions*; yet because I knew not, that your Lordship had ever deduced them from the *Bills of Mortality*, I hoped it might not be ungratefull to your Lordship, to see unto how much profit that one Talent might be improved, besides the many curiosities concerning the waxing, and waning of Diseases, the relation between *healthfull* and *fruitfull Seasons*, the difference between the City and Country *Air*, &c. All which, being new, to the best of my knowledge, and the whole Pamphlet, not two hours reading, I did make bold to trouble your Lordship with a perusal of it, and by this humble Dedication of it, let your Lordship and the world see the Wisdom of our City, in appointing, and keeping these *Accompts*, and with how much affection and success, I am,

My Lord,

*Your Lordship's most obedient, and
most faithfull Servant,*

Birchen-Lane,

25 January 166 $\frac{1}{2}$.

JOHN GRAUNT.

To the Honourable

Sir **ROBERT MORAY**, Knight,

One of His Majesty's Privy Council for His Kingdom of Scotland, and President of the Royal Society of Philosophers, meeting at Gresham-College, and to the rest of that honourable Society.



THE Observations which I happened to make (for I designed them not) upon the Bills of Mortality, have fallen out to be both Political, and Natural, some concerning Trade, and Government, others concerning the Air, Countries, Seasons, Fruitfulness, Health, Diseases, Longevity, and the proportions between the Sex, and Ages of Mankind. All which (because Sr Francis Bacon reckons his Discourses of Life and Death to be Natural History; and because I understand your selves are also appointing means, how to measure the Degrees of Heat, Wetness, and Windiness in the several Parts of His Majesty's Dominions) I am humbly bold to think Natural History also, and consequently, that I am obliged to cast in this small Mite into your great Treasury of that kinde.

His Majesty being not onely by antient Right supremely concerned in matters of Government, and Trade, but also by happy accident Prince of Philosophers, and of Physico-Mathematical Learning, not called so by Flatterers, and Parasites, but really so, as well by his own personal Abilities,

The Epistle Dedicatory.

ties, as affection concerning those matters, upon which Account I should have humbly dedicated both sorts of my Observations unto His most Sacred Majesty; but to be short, I knew neither my Work, nor my Person fit to bear His name, nor to deserve His Patronage. Nevertheless, as I have presumed to present this Pamphlet, so far as it relates to Government, and Trade, to one of His Majesty's Peers, and eminent Ministers of State: so I do desire your leave, to present the same unto You also, as it relates to Natural History, and as it depends upon the Mathematicues of my Shop-Arithmetique. For You are not only his Majesty's Privy Council for Philosophy, but also His Great Council. You are the three Estates, viz. the Mathematical, Mechanical, and Physicall. You are his Parliament of Nature, and it is no less disparagement to the meanest of your number, to say there may be Commoners as well as Peers in Philosophy amongst you. For my own part I count it happiness enough to my self, that there is such a Council of Nature, as your Society is, in being; and I do with as much earnestness enquire after your Expeditions against the Impediments of Science, as to know what Armies, and Navies the several Princes of the World are setting forth. I concern my self as much to know who are Curatours of this or the other Experiments, as to know who are Marechals of France, or Chancellour of Sweden. I am as well pleased to hear you are satisfied in a luciferous Experiment, as that a breach hath been made in the Enemy's works: and your ingenious arguings immediately from sense, and fact, are as pleasant to me as the noise of victorious Guns, and Trumpets.

Moreover, as I contend for the Decent Rights, and Ceremonies of the Church, so I also contend against the envious Schismatics of your Society (who think you do nothing unless

The Epistle Dedicatory.

unless you presently transmute Metals, make Butter and Cheese without Milk; and (as their own Ballad hath it, make Leather without Hides) by asserting the usefulness of even all your preparatory, and luciferous Experiments, being not the Ceremonies, but the substance, and principles of usefull Arts. For, I finde in Trade the want of an universal measure, and have heard Musicians wrangle about the just and uniform keeping of time in their Consorts, and therefore cannot with patience bear, that your Labours about Vibrations, eminently conducing to both, should be slighted, nor your Pendula called Swing-swangs with scorn. Nor can I better endure, that your Exercitations about Air should be termed fit employment onely for Airy Fancies, and not adequate Tasks for the most solid, and piercing heads. This is my Opinion concerning you, and although I am none of your number, nor have the least ambition to be so, otherwise then to become able for your service, and worthy of your Trust; yet I am covetous to have the right of being represented by you: to which end I desire, that this little Exhibition of mine, may be looked upon as a Free-holder's Vote for the choosing of Knights and Burgeses to sit in the Parliament of Nature, meaning thereby, that as the Parliament owns a Free-holder, though he hath but forty Shillings a year, to be one of them; so in the same manner and degree, I also desire to be owned as one of you, and that no longer, then I continue a faithfull Friend, and Servant of your Designs, and Persons,

An INDEX of the *Positions, Observations, and Questions* contained in this Discourse.

1. **T**he Occasion of keeping the *Accompt* of Burials arose first from the Plague, Anno 1592, page 3
2. Seven Alterations, and Augmentations of the published Bills, between the years 1592, and 1662, pag. 4, 5, 6, 7, 8, 9, 10
3. Reasons, why the *Accompts* of Burials, and Christnings should be kept universally, and now called for, and perused by the Magistrate, p. 11
4. A true *Accompt* of the Plague cannot be kept, without the *Accompt* of other Diseases, p. 12
5. The ignorance of the Searchers no impediment to the keeping of sufficient, and usefull *Accompts*, p. 13
6. That about one third of all that were ever quick die under five years old, and about thirty six per Centum under six, p. 14
7. That two parts of nine die of Acute, and seventy of two hundred twenty nine of Chronical Diseases, and four of two hundred twenty nine of outward Grievs, 14, 15
8. A Table of the Proportions dying of the most notorious, and formidable Diseases, or Casualties, p. 16
9. That seven per Centum die of Age, bid.
10. That some Diseases, and Casualties keep a constant proportion, whereas some other are very irregular, p. 16, 17
11. That not above one in four thousand are Starved, p. 17

The Index.

12. *That it were better to maintain all Beggars at the publick charge, though earning nothing, then to let them beg about the Streets; and that employing them without discretion, may do more harm, then good,* pag. 18, 19
13. *That not one in two thousand are Murthered in London, with the Reasons thereof,* p. 19
14. *That not one in fifteen hundred dies Lunatick,* p. 20
15. *That few of those, who die of the French-Pox, are set down, but colour'd under the Consumption, &c.* pag. 21, 22
16. *That the Rickets is a new disease, both as to name, and thing; that from fourteen dying thereof, Anno 1634, it hath gradually encreased to above five hundred Anno 1660,* p. 22, 23, 24
17. *That there is another new Disease appearing; as A Stopping of the Stomach, which hath encreased in twenty years, from six, to near three hundred,* p. 24
18. *That the Rising of the Lights (supposed in most Cases to be the Fits of the Mother) have also encreased in thirty years, from fourtyfour, to two hundred fourty nine,* p. 25, 26
19. *That both the Stopping of the Stomach, and Rising of the Lights, are probably Reliques of, or depending upon the Rickets,* p. 26
20. *That the Stone decreases, and is wearing away,* *ibid.*
21. *The Gowt stands at a stay,* p. 27
22. *The Scurvie encreases,* *ibid.*
23. *The Deaths by reason of Agues are to those caused by Fevers, as one to fourty,* *ibid.*
24. *Abortives, and Stilborn, to those that are Christned are as one to twenty,* *ibid.*
25. *That since the differences in Religion the Christnings have*

The Index.

- p. 28
26. *That not one Woman in an hundred dies in Child-bed, nor one of two hundred in her Labour,* ibid.
27. *Three reasons why the Registering of Children hath been neglected,* p. 29
28. *There was a confusion in the Accompts of Chryloms, Infants, and Convulsions; but rectified in this Discourse,* p. 30
29. *There hath been in London within this Age four times of great Mortality, viz. Anno 1592, 1603, 1625, and 1636, whereof that of 1603 was the greatest,* p. 31, 32
30. *Annis 1603, and 1625, about a fifth part of the whole died, and eight times more then were born,* p. 32
31. *That a fourth part more die of the Plague then are set down,* p. 33
32. *The Plague Anno 1603 lasted eight years, that in 1636 twelve years, but that in 1625 continued but one single year,* ibid.
33. *That Alterations in the Air do incomparably more operate as to the Plague, then the Contagion of converse,* p. 34
34. *That Purples, small-Pox, and other malignant Diseases fore-run the Plague* ibid.
35. *A disposition in the Air towards the Plague doth also dispose women to Abortions,* p. 35
36. *That as about $\frac{2}{3}$. part of the whole people died in the great Plague-years, so two other fifth parts fled, pag. 35, 36, which shews the large relation, and interest, which the Londoners have in the Country.* ibid.
37. *That (be the Plague great, or small) the City is fully re-peopled within two years,* p. 36
38. *The years, 1618, 20, 23, 24, 32, 33, 34, 1649, 52,*

The Index.

- 54, 56, 58, and 61, were sickly years, p. 37
39. *The more sickly the year is, the less fertile of Births,*
ibid.
40. *That Plagues always come in with King's Reigns is most false,*
p. 38
42. *The Autumn, or the Fall is the most unhealthfull season,*
ibid.
41. *That in London there have been twelve Burials for eleven Christnings,*
ibid.
43. *That in the Country there have been, contrary-wise, sixty three Christnings for fifty two Burials,*
p. 39
44. *A supposition, that the people in, and about London, are a fifteenth part of the people of all England, and Wales,*
p. 40
45. *That there are about six Millions, and an half of people in England, and Wales,*
ibid.
46. *That the people in the Country double by Procreation but in two hundred and eighty years, and in London in about seventy, as hereafter will be shewn; the reason whereof is, that many of the breeders leave the Country, and that the breeders of London come from all parts of the Country, such persons breeding in the Country almost onely, as were born there, but in London multitudes of others,*
ibid.
47. *That about 6000 per Annum come up to London out of the Country,*
ibid.
48. *That in London about three die yearly out of eleven Families,*
ibid.
49. *There are about twenty five Millions of acres of Land in England, and Wales,*
p. 41
50. *Why the proportion of breeders in London to the rest of the people is less then in the Country,*
p. 42
51. *That in London are more impediments of breeding, then*

The Index.

- then in the Country,* p. 43
52. *That there are fourteen Males for thirteen Females in London, and in the Country but fifteen Males for fourteen Females,* p. 44
53. *Polygamy useleß to the multiplication of Man-kinde, without Castrations,* p. 45
54. *Why Sheep, and Oxen out-breed Foxes, and other Vermin-Animals,* *ibid.*
55. *There being fourteen Males to thirteen Females, and Males being prolifigue forty years, and Females but twenty five, it follows, that in effect there be 560 Males to 325 Females,* p. 46
56. *The said inequality is reduced by the latter marriage of the Males, and their imployment in Wars, Sea-voilage, and Colonies,* *ibid.*
57. *Physicians have two Women Patients to one Man, and yet more Men die then Women,* *ibid.*
58. *The great emission of Males into the Wars out of London Anno 1642 was instantly supplied,* *ibid.*
59. *Castration is not used onely to meliorate the flesh of Eatable Animals, but to promote their increase also,* p. 47
60. *The true ratio formalis of the evil of Adulteries, and Fornications,* p. 48
61. *Where Polygamy is allowed, Wives can be no other then Servants,* p. 49
62. *That ninety seven, and sixteen Parishes of London are in twenty years encreased from seven to twelve, and in forty years from twenty three to fifty two,* *ibid.*
63. *The sixteen Parishes have encreased farther then the ninety seven, the one having encreased but from nine to ten in the said forty years,* p. 50
64. *The*

The Index.

64. *The ten Out-Parishes have in fifty four years encreased from one to four,* p. 51
65. *The ninety seven, sixteen, and ten Parishes have in fifty four years encreased from two to five,* ibid.
66. *What great Houses within the Walls have been turned into Tenements,* ibid.
67. *Cripplegate-Parish hath most encreased, &c.* ibid.
68. *The City removes Westwards, with the reasons thereof,* p. 52
69. *Why Ludgate is become too narrow a throat for the City,* p. 53
70. *That there be some Parishes in London two hundred times as big as others,* ibid.
71. *The natural bigness, and Figure of a Church for the Reformed Religion,* p. 54
72. *The City of London, and Suburbs, being equally divided, would make 100 Parishes, about the largeness of Christ-church, Blackfriars, or Colmanstreet,* ibid.
73. *There are about 24000 Teeming women in the ninety seven, sixteen, and ten Parishes in, and about London,* p. 56
74. *That about three die yearly out of eleven Families containing each eight persons,* ibid.
75. *There are about 12000 Families within the walls of London,* p. 57
76. *The housing of the sixteen and ten Suburb-Parishes is thrice as big as that of the ninety seven Parishes within the walls,* ibid.
77. *The number of souls in the ninety seven, sixteen, and two out-Parishes is about 384000* ibid.
78. *Whereof 199000 are Males, and 185000 Females* ibid.
79. *A Table shewing of 100 quick conceptions how many die*

The Index.

- die within six years, how many the next Decad, and so for every Decad till 76, 58
80. Tables, whereby may be collected how many there be in London of every Age assigned, *ibid.*
81. That there be in the 97, 16, and ten Parishes near 70000 Fighting Men, that is, Men between the Ages of 16, and 56, *ibid.*
82. That Westminster, Lambeth, Islington, Hackney, Redriff, Stepney, Newington, contain as many people as the 97 Parishes within the Walls, and are consequently $\frac{1}{3}$ of the whole Pile, *ibid.*
83. So that in, and about London are about 81000 Fighting Men, and 460000 in all, 59
84. Adam and Eve in 5610 years might have, by the ordinary proportion of Procreation, begotten more people, then are now probably upon the face of the earth, *ibid.*
85. Wherefore the World cannot be older then the Scriptures represent it, *ibid.*
86. That every Wedding one with another produces four Children, *ibid.*
87. That in several places the proportion between the Males and Females differ, 60
88. That in ninety years there were just as many Males as Females Buried within a certain great Parish in the Country, *ibid.*
89. That a Parish, consisting of about 2700 Inhabitants, had in 90 years but 1059 more Christnings, then Burials, *ibid.*
90. There come yearly to dwell at London about 6000 strangers out of the Country, which swells the Burials about 200 per Annum, p. 61
91. In the Country there have been five Christnings for four Burials, *ibid.*

The Index.

92. *A Confirmation, that the most healthfull years are also the most fruitfull,* ibid.
93. *The proportion between the greatest, & least mortalities in the Country are greater then the same in the City,* p. 63
94. *The Country Air more capable of good, and bad impressions, then that of the City,* ibid.
95. *The differences also of Births are greater in the Country, then at London,* p. 64
96. *In the Country but about one of fifty dies yearly, but at London one of thirty, over and above the Plague,* p. 65
97. *London not so healthfull now as heretofore,* ibid.
98. *It is doubted whether encrease of people, or the burning of Sea-coal were the cause, or both,* ibid.
99. *The Art of making of Gold would be neither benefit to the World, or the Artist,* p. 67
100. *The Elements of true Policy are to understand thoroughly the Lands, and hands of any Country,* p. 68
101. *Upon what considerations the intrinsick value of Lands doth depend,* ibid.
102. *And in what the Accidental,* ibid.
103. *Some of the few benefits of having a true Account of the people,* ibid.
104. *That but a small part of the whole people are employed upon necessary affairs,* p. 69
105. *That a true Account of people is necessary for the Government, and Trade of them, and for their peace, and plenty,* ibid.
106. *Whether this Account ought to be confined to the Chief Governours,* p. 70



THE
P R E F A C E.

HAVING been born, and bred in the City of *London*, and having always observed, that most of them, who constantly took in the weekly *Bills of Mortality*, made little other use of them, than to look at the foot, how the *Burials* increased, or decreased; and, among the *Casualties*, what had happened rare, and extraordinary in the week current: so as they might take the same as a *Text* to talk upon in the next Company; and withall, in the *Plague-time*, how the *Sickness* increased, or decreased, that so the *Rich* might judge of the necessity of their removal, and *Trades-men* might conjecture what doings they were like to have in their respective dealings:

2. Now, I thought that the Wisdom of our City had certainly designed the laudable practice of taking, and distributing these *Accompts*, for other, and greater uses, than those above-mentioned, or at least, that some other uses might be made of them: and thereupon I casting mine Eye upon so many of the *General Bills*, as next came to hand, I found encouragement from them, to look out all the *Bills* I could,

and (to be short) to furnish my self with as much matter of that kind, even as the Hall of the *Parish-Clerks* could afford me; the which when I had reduced into Tables (the Copies whereof are here inserted) so as to have a view of the whole together, in order to the more ready comparing of one *Year, Season, Parish,* or other *Division* of the City, with another, in respect of all the *Burials, and Christnings,* and of all the *Diseases, and Casualties,* happening in each of them respectively: I did then begin not onely to examine the Conceits, Opinions, and Conjectures, which upon view of a few scattered *Bills* I had taken up; but did also admit new ones, as I found reason, and occasion from my *Tables.*

3. Moreover, finding some *Truths,* and not commonly-believed Opinions, to arise from my Meditations upon these neglected *Papers,* I proceeded further, to consider what benefit the knowledge of the same would bring to the World; that I might not engage my self in idle, and useles Speculations: but, (like those Noble *Virtuosi* of *Gresham-College,* who reduce their subtile Disquisitions upon *Nature* into downright Mechanical uses) present the World with some real fruit from those ayrie Blossoms.

4. How far I have succeeded in the Premisses, I now offer to the World's censure. Who, I hope, will not expect from me, not professing Letters, things demonstrated with the same certainty, wherewith Learned men determine in their *Schools;* but will take it well, that I should offer at a new thing, and could forbear presuming to meddle where any of the Learned Pens have ever touched before, and that I have taken the pains, and been at the charge of setting

ting out those *Tables*, whereby all men may both correct my *Positions*, and raise others of their own. For herein I have, like a silly Schole-boy, coming to say my Lesson to the World (that Peevish, and Tetchie Master) brought a bundle of Rods, wherewith to be whip'd for every mistake I have committed.

CHAP. I.

Of the Bills of Mortality, their beginning, and progress.

THE first of the continued weekly *Bills* of *Mortality* extant at the *Parish-Clerks Hall*, begins the twenty ninth of *December* 1603, being the first year of King *James* his Reign; since when a weekly Accompt hath been kept there of *Burials*, and *Christnings*. It is true, There were *Bills* before, *viz.* for the years 1592, 93, 94: but so interrupted since, that I could not depend upon the sufficiency of them, rather relying upon those Accompts, which have been kept since in order, as to all the uses I shall make of them.

2. I believe, that the rise of keeping these Accompts was taken from the *Plague*: for the said *Bills* (for ought appears) first began in the said year 1592, being a time of great *Mortality*; and, after some disuse, were resumed again in the year 1603, after the great *Plague* then happening likewise.

3. These *Bills* were Printed, and published, not

only every week on *Thursdays*, but also a general Accompt of the whole Year was given in upon the *Thursday* before *Christmas-day*: which said general Accompts have been presented in the several manners following, *viz.* from the Year 1603 to the Year 1624, *inclusive*, according to the Pattern here inserted.

1623.

1624.

The general *Bill* for the whole Year of all the *Burials*, and *Christnings*, as well within the City of *London*, and the Liberties thereof, as in the Nine out-Parishes adjoining to the City, with the *Pest-house* belonging to the same: from *Thursday* the 18th of *December* 1623 to *Thursday* the 16th of *December* 1624. according to the Report made to the King's most Excellent Majesty by the Company of the Parish-Clerks of *London*.

B uried this Year in the fourscore and seventeen Parishes of } <i>London</i> within the walls, _____	3386.
Whereof, of the Plague, _____	1.
Buried this Year in the sixteen Parishes of <i>London</i> , and the <i>Pest-</i> } <i>house</i> , being within the Liberties, and without the walls, _____	5924.
Whereof, of the Plague, _____	5.
The whole sum of all the Burials in <i>London</i> , and the Liberties } thereof, is this Year, _____	9310.
Whereof, of the Plague, _____	6.
Buried of the Plague without the Liberties, in <i>Middlesex</i> , and } <i>Surrey</i> this whole Year, _____	0.
Christened in <i>London</i> , and the Liberties thereof, this Year, _____	6368.
Buried this Year in the Nine out-Parishes, adjoining to <i>London</i> , } and out of the Freedom, _____	1900.
Whereof, of the Plague, _____	5.
The Total of all the Burials in the places aforesaid is _____	12210.
Whereof, of the Plague, _____	11.
Christened in all the aforesaid places this Year, _____	8299.
Parishes clear of the Plague, _____	116.
Parishes, that have been Infected this Year, _____	6.

4. In the Year 1625 every Parish was particularized, as in this following *Bill*: where note, That this next year of Plague caused the Augmentation, and Correction of the *Bills*; as the former year of Plague did the very being of them.

1624.

1625.

A general, or great Bill for this Year, of the whole number of Burials, which have been buried of all Diseases, and also of the *Plague* in every Parish within the City of *London*, and the Liberties thereof; as also in the nine out-Parishes adjoining to the said City; with the Pest-house belonging to the same: from *Thursday* the 16. day of *December*, 1624. to *Thursday* the 15. day of *December*, 1625. according to the Report made to the King's most Excellent Majesty by the Company of Parish-Clerks of *London*.

LONDON.	Bur. Plag.	LONDON.	Bur. Plag.
Albanes in Woodstreet	188 78	Clements by Eastcheap	87 72
Alhallows Barking	397 263	Dionys Back-Church	99 59
Alhallows Breadstreet	34 14	Dunstons in the East	335 225
Alhallows the Great	442 302	Edmunds Lombardstreet	78 49
Alhallows Hony-lane	18 8	Ethelborow in Bishopsg.	205 101
Alhallows the less	259 205	St. Faiths	89 45
Alhallows in Lombardstr.	86 44	St. Fosters in Foster-lane	149 102
Alhallows Strainings	183 138	Gabriel Fen church	71 54
Alhallows the Wall	301 155	Georges Botolphs-lane	30 19
Alphage Cripple-gate	240 190	Gregories by Pauls	296 196
Andrew-Hubbard	146 101	Hellens in Bishopsgatestr.	136 71
Andrews Underhaft	219 149	James by Garlick-hith	180 109
Andrews by Wardrobe	373 191	John Baptist	122 79
Anns at Aldersgate	196 128	John Evangelist	7 0
Anns Black-Friers	336 215	John Zacharies	143 97
Antholins Parish	62 31	James Dukes place	310 254
Austins Parish	72 40	Katharine Colemanstr.	261 175
Barthol. at the Exchange	52 24	Katharine Cree-church	886 373
Bennets Fink	108 57	Lawrence in the Jewrie	91 55
Bennets Grace-Church	48 14	Lawrence Pountney	206 127
Bennets at Pauls Wharf	226 131	Leonards Eastcheap	55 26
Bennets Shearhog	24 8	Leonards Fosterlane	292 209
Botolphs Billings-gate	99 66	Magnus Parish by Bridge	137 85
Christs Church Parish	611 371	Margarets Lothbury	114 64
Christophers Parish	48 28	Margarets Moses	37 25

Margarets

LONDON.		Bur. Pla.	LONDON.		Bur. Pla.
Margarets new Fishstreet	—123	82	Michael Crooked-lane	—144	91
Margarets Pattons	—77	50	Michael Queen-hith	—215	157
Mary Ab-church	—98	58	Michael in the Quern	—53	30
Mary Aldermanbury	—126	79	Michael in the Royal	—111	61
Mary Aldermary	—92	54	Michael in Wood-street	—189	68
Mary le Bow	—35	19	Mildreds Bread-street	—60	44
Mary Bothaw	—12	14	Mildreds Poultry	—94	45
Mary Coa'-church	—26	11	Nicholas Acons	—33	13
Mary at the Hill	—152	84	Nicholas Coal-Abby	—87	67
Mary Mounthaw	—76	58	Nicholas Olaves	—70	43
Mary Sommerfet	—270	192	Olaves in Hart-street	—266	195
Mary Stainings	—70	44	Olaves in the Jewry	—43	25
Mary Woolchurch	—58	35	Olaves in Silver-street	—174	103
Mary Woolnoth	—82	50	Pancras by Soper-lane	—17	8
Martins Ironmonger-lane	25	18	Peters in Cheap	—68	44
Martins at Ludgate	—254	164	Peters in Corn-hill	—318	78
Martins Orgars	—88	47	Peters at Pauls Wharf	—97	68
Martins Outwich	—60	30	Peters poor in Broadstreet	—52	27
Martins in the Vintry	—339	208	Stevens in Coalmanitreet	—506	350
Matthew Friday-street	—24	11	Stevens in Walbrook	—25	13
Maudlins in Milk-street	401	23	Swithins at London-stone	—99	60
Maudlins Old-fish-street	—225	142	Thomas Apostles	—141	107
Michael Bassishaw	—199	139	Trinity Parish	—148	87
Michael Corn-Hill	—159	79			

Buried within the 97 Parishes within the Walls, of all Diseases, — 14340.
Where of, of the Plague, ————— 9197.

Andrews in Holborn	—2190	1636	Georges Southwark	—1608	912
Bartholmew the Great	—516	360	Giles Cripplegate	—3988	2338
Bartholmew the less	—111	65	Olaves in Southwark	—3689	2609
Brides Parish	—1481	1031	Saviours in Southwark	—2746	1671
Botolph Algate	—2573	1653	Sepulchres Parish	—3425	2420
Bridewel Precinct	—213	152	Thomas in Southwark	—335	277
Botolph Bishopsgate	—2334	714	Trinity in the Minories	—131	87
Botolphs Aldersgate	—578	307	At the Pest-house	—194	189
Dunstanes the West	—860	642			

Buried in the 16 Parishes without the Walls, standing part within
the Liberties, and part without: in Middlesex, and Surrey, and
at the Pest-house. ————— } 269722
Where of, of the Plague, ————— 17153

Buried in the nine out-Parishes.

Clements Temple-bar—1284	755	Martins in the Fields—1470	973
Giles in the Fields—1333	947	Mary White-chapel—3305	2272
James at Clarken-well-1191	903	Magdalens Bermondsey-1127	889
Katharins by the Tower--998	744	Savoy Parish ————	250 176
Leonards in Shoreditch-1995	1407		
Buried in the nine out-Parishes, in Middlesex, and Surrey, ———— 12953			
Whereof, of the Plague, ———— 9067			

The Total of all the Burials of all Diseases, within the Walls, without the walls, in the Liberties, in Middlesex, and Surrey: with the nine Out-Parishes, and the Pest-house.	} 54265.
Whereof. Buried of the Plague, this present year, is	
Christnings this present year, is	35417
Parishes infected this year, is	6983
Parishes clear this year, is	1
	121

5. In the Year 1626, the City of *Westminster*, in imitation of *London*, was inserted. The gross account of the *Burials*, and *Christenings*, with distinction of the *Plague* being onely taken notice of therein; the fifth, or last Canton, or Lined-space, of the said Bill, being varied into the form following, *viz.*

In Westminster this Year	{	Buried —————	471
		Plague —————	13
		Christenings —————	361

6. In the Year 1629, an account of the *Diseases*, and *Casualties*, whereof any dyed, together with the distinction of *Males* and *Females*, making the sixth Canton of the Bill, was added in manner following.

The Canton of Casualties, and of the Bill for the Year 1632, being of the same form with that of 1629.

The Diseases, and Casualties this year being 1632.

A Bortive, and Stillborn	445	Jaundies	43
Affrighted	1	Jaw-faln	8
Aged	628	Impostume	74
Ague	43	Kil'd by several accidents	46
Apoplex, and Meagrom	17	King's Evil	38
Bit with a mad dog	1	Lethargie	2
Bleeding	3	Livergrown	87
Bloody flux, scowring, and flux	348	Lunatique	5
Brused, Issues, sores, and ulcers,	18	Made away themselves	15
Burnt, and Scalded	5	Measles	80
Burst, and Rupture	9	Murthered	7
Cancer, and Wolf	10	Over-laid, and starved at nurse	7
Canker	1	Pallie	25
Childbed	171	Piles	1
Chisomes, and Infants	2268	Plague	8
Cold, and Cough	55	Planet	13
Colick, Stone, and Strangury	56	Pleurisie, and Spleen	36
Consumption	1797	Purples, and spotted Feaver	38
Convulsion	241	Quinsie	7
Cut of the Stone	5	Rising of the Lights	98
Dead in the street, and starved	6	Sciatica	1
Dropfie, and Swelling	267	Scurvy, and Itch	9
Drowned	34	Suddenly	62
Executed, and prest to death	18	Surfet	86
Falling Sicknes	7	Swine-Pox	6
Fever	1108	Teeth	470
Fistula	13	Thrush, and Sore-mouth	40
Flocks, and small Pox	531	Tympany	13
French Pox	12	Tiffick	34
Gangrene	5	Vomiting	1
Gout	4	Worms	27
Grief	11		

Christened { Males—4994 } Buried { Males—4932 } Whereof,
 { Females—4590 } { Females—4603 } of the
 { In all—9584 } { In all—9535 } Plague 8

Increased in the Burials in the 122 Parishes, and at the Pest-house this year, 999
 Decreased of the Plague in the 122 Parishes, and at the Pest-house this year, 662

7. In the year 1636, the Account of the *Burials*,
 and *Christnings*, in the Parishes of *Istington*, *Lambeth*,
Stepney, *Newington*, *Flackney*, and *Redriff*, were added
 in

in the manner following, making a seventh Canton, *viz.*

In Margarets Westminster	{ Christned — 440 Buried — 890 Plague — 0	Newington	{ Christned — 99 Buried — 181 Plague — 0
Islington	{ Christned — 36 Buried — 113 Plague — 0	Hackney	{ Christned — 30 Buried — 91 Plague — 0
Lambeth	{ Christned — 132 Buried — 220 Plague — 0	Redriff	{ Christned — 16 Buried — 48 Plague — 0
Stepney	{ Christned — 892 Buried — 1486 Plague — 0		

The total of all the Burials in the seven last Parishes this Year — 2958
Whereof of the Plague — 0
The total of all the Christnings — 1645

8. *Covent-Garden* being made a Parish, the nine out-Parishes were called the ten out-Parishes, the which in former years were but eight.

9. In the year 1660 the last-mentioned ten Parishes, with *Westminster*, *Islington*, *Lambeth*, *Stepney*, *Newington*, *Hackney*, and *Redriff*, are entred under two Divisions, *viz.* the one containing the twelve Parishes lying in *Middlesex*, and *Surrey*, and the other the five Parishes within the City, and Liberties of *Westminster*, *viz.* *St. Clement-Dane's*, *St. Paul's*, *Covent-Garden*, *St. Martin's in the Fields*, *St. Mary-Savoy*, and *St. Margaret's Westminster*.

10. We have hitherto described the several steps, whereby the *Bills of Mortality* are come up to their present state; we come next to shew how they are made, and composed, which is in this manner, *viz.* When any one dies, then, either by tolling, or ringing

of a Bell, or by bespeaking of a Grave of the *Sexton*, the same is known to the *Searchers*, corresponding with the said *Sexton*.

11. The *Searchers* hereupon (who are antient Matrons, sworn to their Office) repair to the place, where the dead Corps lies, and by view of the same, and by other enquiries, they examine by what *Disease*, or *Casualty* the Corps died. Hereupon they make their Report to the *Parish-Clerk*, and he, every *Tuesday*-night, carries in an Accompt of all the *Burials*, and *Christnings*, happening that Week, to the *Clerk* of the *Hall*. On *Wednesday* the general Accompt is made up, and Printed, and on *Thursdays* published, and dispersed to the several Families, who will pay four shillings *per Annum* for them.

12. *Memorandum*, That although the general yearly *Bills* have been set out in the several varieties aforementioned, yet the Original Entries in the *Hall-books* were as exact in the very first Year as to all particulars, as now ; and the specifying of *Casualties*, and *Diseases*, was probably more.

CHAP. II.

General Observations upon the Casualties.

IN my Discourses upon these *Bills* I shall first speak of the *Casualties*, then give my Observations with reference to the *Places*, and *Parishes* comprehended in the *Bills*; and next of the *Years*, and *Seasons*.

1. There

1. There seems to be good reason, why the *Magistrate* should himself take notice of the numbers of *Burials*, and *Christnings*, viz. to see, whether the City encrease, or decrease in people; whether it encrease proportionably with the rest of the Nation; whether it be grown big enough, or too big, &c. But why the same should be made known to the People, otherwise then to please them as with a curiosity, I see not.

2. Nor could I ever yet learn (from the many I have asked, and those not of the least *Sagacity*) to what purpose the distinction between *Males* and *Females* is inserted, or at all taken notice of? or why that of *Marriages* was not equally given in? Nor is it obvious to every body, why the Accompt of *Casualties* (whereof we are now speaking) is made? The reason, which seems most obvious for this latter, is, That the state of Health in the City may at all times appear.

3. Now it may be Objected, That the same depends most upon the Accompts of *Epidemical Diseases*, and upon the chief of them all, the *Plague*; wherefore the mention of the rest seems onely matter of curiosity.

4. But to this we answer, That the knowledg even of the numbers, which die of the *Plague*, is not sufficiently deduced from the meer Report of the *Searchers*, which onely the Bills afford; but from other *Ratiocinations*, and comparings of the *Plague* with some other *Casualties*.

5. For we shall make it probable, that in Years of *Plague* a quarter-part more dies of that *Disease* then are set down; the same we shall also prove by the other *Casualties*. Wherefore, if it be necessary to im-

part to the World a good Accompt of some few *Casualties*, which since it cannot well be done without giving an Accompt of them all, then is our common practise of so doing very apt, and rational.

6. Now, to make these Corrections upon the perhaps ignorant, and careless *Searchers* Reports, I considered first of what Authority they were in themselves, that is, whether any credit at all were to be given to their Distinguishments: and finding that many of the *Casualties* were but matter of sense, as whether a Childe were *Abortive*, or *Stilborn*; whether men were *Aged*, that is to say, above sixty years old, or thereabouts, when they died, without any curious determination, whether such *Aged* persons died purely of *Age*, as for that the *Innate heat* was quite extinct, or the *Radical moisture* quite dried up (for I have heard some Candid *Physicians* complain of the darkness, which themselves were in hereupon) I say, that these Distinguishments being but matter of sense, I concluded the *Searchers* Report might be sufficient in the Case.

7. As for *Consumptions*, if the *Searchers* do but truly Report (as they may) whether the dead Corps were very lean, and worn away, it matters not to many of our purposes, whether the Disease were exactly the same, as *Physicians* define it in their Books. Moreover, In case a man of seventy five years old died of a *Cough* (of which had he been free, he might have possibly lived to ninety) I esteem it little error (as to many of our purposes) if this Person be, in the Table of *Casualties*, reckoned among the *Aged*, and not placed under the Title of *Coughs*.

8. In the matters of *Infants* I would desire but to know

know clearly, what the *Searchers* mean by *Infants*, as whether Children that cannot speak, as the word *Infant* seems to signifie, or Children under two or three years old, although I should not be satisfied, whether the *Infant* died of *Winde*, or of *Teeth*, or of the *Convulsion*, &c. or were choaked with *Phlegm*, or else of *Teeth*, *Convulsion*, and *scouring*, apart, or together, which, they say, do often cause one another: for, I say, it is somewhat to know how many die usually before they can speak, or how many live past any assigned number of years,

9. I say, it is enough; if we know from the *Searchers* but the most predominant Symptoms; as that one died of the *Head-Ach*, who was sorely tormented with it, though the *Physicians* were of Opinion, that the Disease was in the *Stomach*. Again, if one died suddenly, the matter is not great, whether it be reported in the Bills, *Suddenly*, *Apoplexie*, or *Planet-strucken*, &c.

10. To conclude, In many of these Cases the *Searchers* are able to report the Opinion of the *Physician*, who was with the Patient, as they receive the same from the Friends of the Defunct: and in very many Cases, such as *Drowning*, *Scalding*, *Bleeding*, *Vomiting*, *making-away themselves*, *Lunatiques*, *Sores*, *Small-Pox*, &c. their own senses are sufficient; and the generality of the World are able pretty well to distinguish the *Gout*, *stone*, *Dropse*, *Falling-Sickness*, *Palsie*, *Agues*, *Pleurisy*, *Rickets*, one from another.

11. But now as for those Casualties, which are aptest to be confounded, and mistaken, I shall in the ensuing Discourse presume to touch upon them so far, as the Learning of these Bills hath enabled me.

12. Having

12. Having premised these general Advertisements, our first Observation upon the *Casualties* shall be, That in twenty Years there dying of all Diseases, and *Casualties*, 229250, that 71124 dyed of the *Tbrusb*, *Convulsion*, *Rickets*, *Teeth*, and *Worms*; and as *Abortives*, *Chryfomes*, *Infants*, *Liver-grown*, and *Over-laid*; that is to say, that about $\frac{1}{3}$ of the whole died of those Diseases, which we guess did all light upon Children under four or five Years old.

13. There died also of the *Small-Pox*, *Swine-Pox*, and *Measles*, and of *Worms* without *Convulsions*, 12210. of which number we suppose likewise, that about $\frac{1}{2}$ might be Children under six Years old. Now, if we consider that sixteen of the said 229250 died of that extraordinary and grand *Casualty*, the *Plague*, we shall finde that about thirty six *per Centum* of all quick conceptions died before six Years old.

14. The second Observation is, That of the said 229250 dying of all Diseases, there died of *acute* Diseases (the *Plague* excepted) but about 50000, or $\frac{2}{9}$ parts. The which proportion doth give a measure of the State, and Disposition of this *Climate*, and *Air*, as to health; these *acute*, and *Epidemical* Diseases happening suddenly, and vehemently upon the like corruptions, and alterations in the *Air*.

15. The third Observation is, That of the said 229250 about seventy died of *Chronical* Diseases, which shews (as I conceive) the State, and Disposition of the Country (including as well its *Food*, as *Air*) in reference to health, or rather to *longevity*: for as the proportion of *acute* and *Epidemical* Diseases shews the aptness of the *Air* to sudden and vehement Impressions; so the *Chronical* Diseases shew the ordinary temper

temper of the Place : so that upon the proportion of *Chronical* Diseases seems to hang the judgment of the fitness of the Country for *long life*. For, I conceive, that in Countries subject to great *Epidemical* Sweeps men may live very long, but, where the proportion of the *Chronical* distempers is great, it is not likely to be so; because men being long sick, and always sickly, cannot live to any great age, as we see in several sorts of *Metal-men*, who although they are less subject to *acute* Diseases than others, yet seldom live to be old, that is, not to reach unto those years, which *David* saies is the age of man.

16. The fourth Observation is, That of the said 229250 not 4000 died of outward Grievs, as of *Cancers, Fistulas, Sores, Ulcers, broken and bruised Limbs, Impostumes, Itch, King's-evil, Leprosie, Scald-head, Swine-Pox, Wens, &c.* viz. not one in 60.

17. In the next place, whereas many persons live in great fear, and apprehension of some of the more formidable and notorious Diseases following; I shall onely set down how many died of each: that the respective numbers, being compared with the Total 229250, those persons may the better understand the hazard they are in.

Table of notorious Diseases.

<i>Apoplex</i> —————	1306	<i>Leprosy</i> —————	0006
<i>Cut of the Stone</i> ———	0038	<i>Lunatique</i> ———	0158
<i>Falling-Sickness</i> ———	0074	<i>Overlaid, and Starved</i>	0529
<i>Dead in the Streets</i> —	0243	<i>Palsy</i> —————	0423
<i>Gowt</i> —————	0134	<i>Rupture</i> —————	0201
<i>Head-Ach</i> —————	0051	<i>Stone, and Strangury</i>	0863
<i>Jaundice</i> —————	0908	<i>Sciatica</i> —————	0005
<i>Lethargy</i> —————	0067	<i>Sodainly</i> —————	0454
			<i>Table</i>

Table of Casualties.

Bleeding	—————	069	Kil'd by several	} ————	1021
Burnt, and Scalded	}	125	accidents		
Drowned			—————	829	Murdered
Excessive drinking	—————	002	Poysoned	—————	014
Frighted	—————	022	Smothered	—————	026
Grief	—————	279	Shot	—————	007
Hanged themselves	—————	222	Starved	—————	051
			Vomiting	—————	136

18. In the foregoing Observations we ventured to make a Standard of the healthfulness of the *Air* from the proportion of *Acute* and *Epidemical* diseases, and of the wholesomeness of the Food from that of the *Chronical*. Yet, forasmuch as neither of them alone do shew the *longevity* of the Inhabitants, we shall in the next place come to the more absolute Standard, and Correction of both, which is the proportion of the aged, *viz.* 15757 to the Total 229250. That is of about 1 to 15, or 7 *per Cent*. Onely the question is, what number of years the *Searchers* call *Aged*, which I conceive must be the same, that *David* calls so, *viz.* 70. For no man can be said to die properly of *Age*, who is much less. It follows from hence, That if in any other Country more then seven of the 100 live beyond 70, such Country is to be esteemed more healthful then this of our City.

19. Before we speak of particular *Casualties*, we shall observe, that among the several *Casualties* some bear a constant proportion unto the whole number of *Burials*; such are *Chronical* Diseases, and the diseases, whereunto the City is most subject; as for
 Example,

Example, *Consumptions, Dropsies, Jaundice, Gout, Stone, Palsie, Scurvy, rising of the Lights, or Mother, Rickets, Aged, Agues, Feavers, Bloody-Flux, and Scouring*: nay some Accidents, as *Grief, Drowning, Men's making away themselves*, and being *Kil'd by several Accidents, &c.* do the like, whereas *Epidemical, and Malignant* diseases, as the *Plague, Purples, Spotted-Feaver, Small-Pox, and Measles* do not keep that equality, so as in some Years, or Moneths, there died ten times as many as in others.

CHAP. III,

Of Particular Casualties.

1. **M**Y first Observation is, That few are *starved*. This appears, for that of the 229250, which have died, we find not above fifty one to have been *starved*, excepting helpless *Infants* at Nurse, which being caused rather by carelessness, ignorance, and infirmity of the Milch-women, is not properly an effect, or sign of want of food in the Countrey, or of means to get it.

2. The Observation which I shall add hereunto, is, That the vast numbers of *Beggars*, swarming up and down this City, do all live, and seem to be most of them healthy, and strong; whereupon I make this Question, Whether, since they do all live by begging, that is, without any kind of labour; it were not better for the State to keep them, even although they earned nothing; that so they might live regularly, and not in that Debauchery, as many Beggars do;

and that they might be cured of their bodily Impotencies, or taught to work, &c. each according to his condition, and capacity; or by being employed in some work (not better undone) might be accustomed, and fitted for labour.

3. To this some may Object, That *Beggars* are now maintained by voluntary Contributions, whereas in the other way the same must be done by a general Tax; and consequently, the Objects of Charity would be removed, and taken away.

4. To which we Answer, That in *Holland*, although no where fewer *Beggars* appear to charm up commiseration in the credulous, yet no where is there greater, or more frequent Charity: onely indeed the Magistrate is both the *Beggar*, and the *disposer* of what is gotten by *begging*; so as all Givers have a Moral certainty, that their Charity shall be well applied.

5. Moreover, I question; Whether what we give to a Wretch, that shews us lamentable sores, and mutilations, be always out of the purest Charity? that is, purely for God's sake; for as much as when we see such Objects, we then feel in our selves a kinde of pain, and passion by consent; of which we ease our selves, when we think we have eased them, with whom we sympathized: or else we bespeak beforehand the like commiseration in others towards our selves, when we shall (as we fear we may) fall into the like distress.

6. We have said, *'Twere better the Publick should keep the Beggars, though they earned nothing, &c.* But most men will laugh to hear us suppose, That any able to work (as indeed most *Beggars* are, in one kind of measure, or another) should be kept without earning any

any thing. But we Answer, That if there be but a certain proportion of work to be done; and that the same be already done by the *non-Beggars*; then to employ the *Beggars* about it, will but transfer the want from one hand to another; nor can a Learner work so cheap as a skilfull practised Artift can. As for example, a practised *Spinner* shall spin a pound of Wool worth two shillings for six pence; but a learner, undertaking it for three pence, shall make the Wool indeed into Yarn, but not worth twelve pence.

7. This little hint is the model of the greatest work in the World, which is the making of *England* as considerable for Trade as *Holland*; for there is but a certain proportion of Trade in the world, and *Holland* is prepossessed of the greater part of it, and is thought to have more skill, and experience to manage it: wherefore, to bring *England* into *Holland's* condition, as to this particular, is the same, as to send all the *Beggars* about *London* into the *West-Country* to Spin, where they shall onely spoil the *Clothiers* Wool, and beggar the present *Spinners* at best; but, at worst, put the whole Trade of the *Country* to a stand, untill the *Hollander*, being more ready for it, have snapt that with the rest.

8. My next Observation is, That but few are *Murthered*, viz. not above 86 of the 229250, which have died of other Diseases, and Casualties; whereas in *Paris* few nights scape without their *Tragedie*.

9. The Reasons of this we conceive to be *Two*: One is the *Government*, and *Guard* of the City by *Citizens* themselves, and that alternately. No man settling into a Trade for that employment. And the other is, The natural, and customary abhorrence of

that inhumane *Crime*, and all *Bloodshed* by most *Englishmen*: for of all that are *Executed* few are for *Murder*. Besides the great and frequent *Revolutions*, and *Changes of Government* since the year 1650, have been with little *bloodshed*; the *Usurpers* themselves having *Executed* few in comparison, upon the *Account* of disturbing their *Innovations*.

10. In brief, when any dead *Body* is found in *England*, no *Algebraist*, or *Uncipherer* of *Letters*, can use more *subtile suppositions*, and *variety of conjectures* to find out the *Demonstration*, or *Cipher*; then every common *unconcerned Person* doth to find out the *Murderers*, and that for ever, until it be done.

11. The *Lunaticks* are also but few, viz. 158 in 229250. though I fear many more then are set down in our *Bills*, few being entred for such, but those who die at *Bedlam*; and there all seem to dy of their *Lunacy*, who died *Lunaticks*; for there is much difference in computing the number of *Lunaticks*, that die (though of *Fevers*, and all other *Diseases*, unto which *Lunacy* is no *Supersedeas*) and those, that dy by reason of their *Madness*.

12. So that, this *Casualty* being so uncertain, I shall not force my self to make any inference from the numbers, and proportions we finde in our *Bills* concerning it: onely I dare ensure any man at this present, well in his *Wits*, for one in the thousand, that he shall not die a *Lunatick* in *Bedlam*, within these seven years, because I finde not above one in about one thousand five hundred have done so.

13. The like use may be made of the *Accompts* of men, that made away themselves, who are another
fort

fort of Mad-men, that think to ease themselves of pain by leaping into *Hell*; or else are yet more Mad, so as to think there is no such place; or that men may go to rest by death, though they die in *self-murther*, the greatest Sin.

14. We shall say nothing of the numbers of those, that have been *Drowned*, *Killed by falls from Scaffolds*, or by *Carts running over them*, &c. because the same depends upon the casual Trade, and Employment of men, and upon matters which are but circumstantial to the Seasons, and Regions we live in; and affords little of that Science, and Certainty we aim at.

15. We finde one *Casualty* in our Bills, of which, though there be daily talk, there is little effect, much like our abhorrence of *Toads*, and *Snakes*, as most poisonous Creatures, whereas few men dare say upon their own knowledge, they ever found harm by either; and this *Casualty* is the *French-Pox*, gotten, for the most part, not so much by the intemperat use of *Venery* (which rather causeth the *Gowt*) as of many common Women.

16. I say, the Bills of *Mortality* would take off these Bars, which keep some men within bounds, as to these extravagancies: for in the afore-mentioned 229250, we finde not above 392 to have died of the *Pox*. Now, forasmuch as it is not good to let the World be lulled into a security, and belief of Impunity by our Bills, which we intend shall not be onely as *Death's-heads* to put men in mind of their *Mortality*, but also as *Mercurial Statues* to point out the most dangerous ways, that lead us into it, and misery. We shall therefore shew, that the *Pox* is not as the *Toads*, and *Snakes* afore-mentioned, but of a quite contrary nature,

nature, together with the reason, why it appears otherwise.

17. Forasmuch as by the ordinary discourse of the world it seems a great part of men have, at one time, or other, had some *species* of this Disease, I wondering why so few died of it, especially because I could not take that to be so harmless, whereof so many complained very fiercely; upon enquiry I found that those, who died of it out of the Hospitals (especially that of *King's-Land*, and the *Lock* in *Southwark*) were returned of *Ulcers*, and *Sores*. And in brief I found, that all mentioned to die of the *French-Pox* were returned by the *Clerks* of *Saint Gile's*, and *Saint Martin's in the Fields* onely, in which place I understood that most of the vilest and most miserable houses of uncleanness were: from whence I concluded, that onely *hated* persons, and such, whose very *Noses* were eaten of, were reported by the *Searchers* to have died of this too frequent *Maladie*.

18. In the next place it shall be examined under what name, or *Casualtie*, such as die of these Diseases are brought in: I say, under the *Consumption*; forasmuch, as all dying thereof die so emaciated and lean (their *Ulcers* disappearing upon Death) that the Old-women *Searchers* after the mist of a Cup of *Ale*, and the bribe of a two-groat fee, instead of one, given them, cannot tell whether this emaciation, or leanness were from a *Phthisis*, or from an *Hectick Fever*, *Atrophy*, &c. or from an Infection of the *Spermatick* parts, which in length of time; and in various disguises hath at last vitiated the habit of the Body, and by disabling the parts to digest their nourishment brought them to the condition of leanness above-mentioned.

19. My next Observation is, that of the *Rickets* we finde no mention among the *Casualties*; untill the year 1634, and then but of 14 for that whole year.

20. Now the Question is, Whether that Disease did first appear about that time; or whether a Disease, which had been long before, did then first receive its Name?

21. To clear this Difficulty out of the Bills (for I dare venture on no deeper Arguments) I enquired what other *Casualties* before the year 1634, named in the Bills, was most like the *Rickets*; and found, not onely by Pretenders to know it, but also from other Bills, that *Liver-grown*, was the nearest. For in some years I finde *Liver-grown*, *Spleen*, and *Rickets*, put all together, by reason (as I conceive) of their likeness to each other. Hereupon I added the *Liver-growns* of the year 1634, viz. 77, to the *Rickets* of the same year, viz. 14, making in all 91: which Total, as also the Number 77 it self, I compared with the *Liver-grown* of the precedent year, 1633, viz. 82: All which shewed me, that the *Rickets* was a new Disease over and above.

22. Now, this being but a faint Argument, I looked both forwards and backwards, and found, that in the year 1629, when no *Rickets* appeared, there was but 94 *Liver-growns*; and in the year 1636 there was 99 *Liver-grown*, although there were also 50 of the *Rickets*: onely this is not to be denied, that when the *Rickets* grew very numerous (as in the year 1660 viz. to be 521) then there appeared not above 15 of *Liver-grown*.

23. In the year 1659 were 441 *Rickets*, and 8 *Liver-grown*. In the year 1658 were 476 *Rickets*, and
51 *Liver-*

51. *Liver-grown*. Now, though it be granted that these Diseases were confounded in the judgment of the *Nurses*, yet it is most certain, that the *Liver-grown* did never but once, *viz.* Anno 1630, exceed 100. whereas Anno 1660, *Liver-grown*, and *Rickets* were 536.

24. It is also to be observed, that the *Rickets* were never more numerous then now, and that they are still encreasing; for Anno 1649, there was but 190, next year 260, next after that 329, and so forwards, with some little starting backwards in some years, until the year 1660, which produced the greatest of all.

25. Now, such back-startings seem to be universal in all things; for we do not onely see in the progressive motion of the wheels of *Watches*, and in the rowing of *Boats*, that there is a little starting, or jerking backwards between every step forwards, but also (if I am not much deceived) there appeared the like in the motion of the *Moon*, which in the long *Telescopes* at *Gresham-College* one may sensibly discern.

26. There seems also to be another new Disease, called by our Bills *The stopping of the Stomach*, first mentioned in the year, 1636, the which *Malady* from that year to 1647, encreased but from 6 to 29; Anno 1655 it came to be 145. In 57, to 277. In 60, to 314. Now these proportions far exceeding the difference of proportion generally arising from the encrease of Inhabitants, and from the resort of *Advena* to the City, shews there is some new Disease, which appeareth to the Vulgar, as *A stopping of the Stomach*.

27. Hereupon I apprehended that this *Stopping* might be the *Green-sickness*, forasmuch as I finde few, or none, to have been returned upon that Accompt, although many be visibly stained with it. Now whether the same be forborn out of shame, I know not? For since the world believes, that Marriage cures it, it may seem indeed a shame, that any Maid should die uncured, when there are more *Males* then *Females*, that is, an overplus of Husbands to all that can be *Wives*.

28. In the next place I conjectured, that this *stopping of the Stomach* might be the *Mother*, forasmuch as I have heard of many troubled with *Mother-fits* (as they call them) although few returned to have died of them; which conjecture, if it be true, we may then safely say, That the *Mother-fits* have also encreased.

29. But I was somewhat taken off from thinking this *stopping of the Stomach* to be the *Mother*, because I guessed rather the *Rising of the Lights* might be it. For I remembered that some Women, troubled with the *Mother-fits*, did complain of a *choaking in their Throats*. Now as I understand, it is more conceivable, that the *Lights*, or *Lungs* (which I have heard called *The Bellows of the Body*) not blowing, that is, neither venting out, nor taking in breath, might rather cause such a *choaking*, then that the *Mother* should rise up thither, and do it. For me-thinks, when a woman is with childe, there is a greater rising, and yet no such Fits at all.

30. But what I have said of the *Rickets*, and *stopping of the Stomach*, I do in some measure say of the *Rising of the Lights* also, viz. that these *Risings* (be they

they what they will) have encreased much above the general proportion; for in 1629 there was but 44. and in 1660, 249, *viz.* almost six times as many.

31. Now forasmuch as *Rickets* appear much in the *Over-growing* of *Childrens Livers*, and *Spleens* (as by the *Bills* may appear) which surely may cause *stopping of the Stomach* by squeezing, and crowding upon that part. And forasmuch as these *Choakings*, or *Risings of the Lights* may proceed from the same stuffings, as make the *Liver*, and *spleen* to over-grow their due proportion. And lastly, forasmuch as the *Rickets*, *stopping of the Stomach*, and *rising of the Lights*, have all encreased together, and in some kinde of correspondent proportions; it seems to me, that they depend one upon another. And that what is the *Rickets* in children may be the other in more grown bodies, for surely children, which recover of the *Rickets*, may retain somewhat sufficient to cause what I have imagined; but of this let the learned *Physicians* consider, as I presume they have.

32. I had not medled thus far, but that I have heard, the first hints of the circulation of the Blood were taken from a common Person's wondering what became of all the blood which issued out of the heart, since the heart beats above three thousand times an hour, although but one drop should be pumpt out of it, at every stroke.

33. The *Stone* seemed to decrease: for in 1632, 33, 34, 35, and 36: there died of the *Stone*, and *Strangury*, 254. And in the Years 1655, 56, 57, 58, 59, and 1660, but 250, which numbers although indeed they be almost equal, yet considering the *Burials* of the first named five Years were but half those of

the latter, it seems to be decreased by about one half.

34. Now the *Stone*, and *Strangury*, are diseases, which most men know, that feel them, unless it be in some few cases, where (as I have heard *Physicians* say) a *stone* is held up by the *Filmes* of the *Bladder*, and so kept from grating or offending it.

35. The *Gowt* stands much at a stay, that is, it answers the general proportion of Burials; there dies not above one of 1000 of the *Gowt*, although I believe that more die *Gowty*. The reason is, because those that have the *Gowt*, are said to be *Long-livers*, and therefore, when such die, they are returned as *Aged*.

36. The *scurvy* hath likewise encreased, and that gradually from 12, Anno 1629. to 95, Anno 1660.

37. The *Tyffick* seems to be quite worn away, but that it is probable the same is entred as *Cough*, or *Consumption*.

38. *Agues* and *Fevers* are entred promiscuously, yet in the few Bills, wherein they have been distinguished, it appears, that not above one in 40, of the whole are *Agues*.

39. The *Abortives*, and *stil-born* are about the twentieth part of those that are *Christened*, and the numbers seemed the same thirty Years ago as now, which shews there were more in proportion in those Years than now: or else that in these latter Years due *Accompts* have not been kept of the *Abortives*, as having been Buried without notice, and perhaps not in *Church-Yards*.

40. For that there hath been a neglect in the *Accompts* of the *Christenings* is most certain, because until the Year 1642, we finde the *Burials* but equal with the *Christenings*, or near thereabouts, but in 1648,

when the differences in *Religion* had changed the Government, the *Christnings* were but two thirds of the *Burials*. And in the year 1659, not half, *viz.* the *Burials* were 14720, (of the *Plague* but 36) and the *Christnings* were but 5670, which great disproportion could be from no other Cause, then that above-mentioned, for as much as the same grew as the Confusions, and Changes grew.

41. Moreover, although the Bills give us in *Anno* 1659 but 5670 *Christnings*, yet they give us 421 *Abortives*, and 226 dying in *Child-bed*, whereas in the year 1631, when the *Abortives* were 410, that is, near the number of the year 1659, the *Christnings* were 8288. Wherefore by the proportion of *Abortives* *Anno* 1659, the *Christnings* should have been about 8500, but if we shall reckon by the women dying in *Child-Bed*, of whom a better Accompt is kept, then of *Stil-Borns*, and *Abortives*, we shall finde *Anno* 1659, there were 226 *Child-Beds*; and *Anno* 1631, 112, *viz.* not $\frac{1}{2}$. Wherefore I conceive that the true number of the *Christnings* *Anno* 1659 is above double to the 5690 set down in our Bills; that is about 11500, and then the *Christnings* will come near the same proportion to the *Burials*, as hath been observed in former times.

42. In regular Times, when Accompts were well kept, we finde that not above three in 200 died in *Child-bed*, and that the number of *Abortives* was about treble to that of the women dying in *Child-bed*: from whence we may probably collect, that not one woman of an hundred (I might say of two hundred) dies in her labour; for as much as there be other Causes of a woman's dying within the Moneth, then the hardness of her Labour.

43. If this be true in these Countries, where women hinder the facility of their *Child-bearing* by affected straightning of their Bodies; then certainly in *America*, where the same is not practised, Nature is little more to be taxed as to women, then in *Brutes*, among whom not one in some thousands do die of their Deliveries: what I have heard of the *Irish-women* confirms me herein.

44. Before we quite leave this matter, we shall insert the Causes, why the Accompt of *Christnings* hath been neglected more then that of *Burials*: one, and the chief whereof, was a Religious Opinion against *Baptizing of Infants*, either as unlawful, or unnecessary. If this were the onely reason, we might by our defects of this kinde, conclude the growth of this Opinion, and pronounce, that not half the People of *England*, between the years 1650, and 1660, were convinced of the need of *Baptizing*.

45. A second Reason was, The scruples, which many Publick *Ministers* would make of the worthiness of Parents to have their Children Baptized, which forced such questioned Parents, who did also not believe the necessity of having their Children *Baptized* by such scrupulers, to carry their Children into such other *Ministers*, as having performed the thing had not the Authority, or Command of the *Register* to enter the names of the *Baptized*.

46. A third Reason was, That a little Fee was to be paid for the *Registry*.

47. Upon the whole matter it is most certain, that the number of *Heterodox* Believers was very great between the said year, 1650, and 1660, and so peevish were they, as not to have the Births of their Children *Registered*,

Registred, although thereby the time of their coming of Age might be known, in respect of such Inheritances, as might belong unto them; and wthial by such *Registring* it would have appeared unto what *Parish* each Childe had belonged, in case any of them should happen to want its relief.

48. Of *Convulsions* there appeared very few, *viz.* but 52 in the year 1629, which in 1636 grew to 707, keeping about that stay, till 1659, though sometimes rising to about 1000.

49. It is to be noted, that from 1629 to 1636, when the *Convulsions* were but few, the number of *Chrysooms*, and *Infants* was greater: for in 1629, there was of *Chrysooms*, and *Infants* 2596, and of the *Convulsion* 52, *viz.* of both, 2648. And in 1636 there was of *Infants* 1895, and of the *Convulsions* 709. in both 2604, by which it appears, that this difference is likely to be onely a confusion in the Accompts.

50. Moreover, we finde that for these later years, since 1636, the total of *Convulsions* and *Chrysooms* added together are much less, *viz.* by about 400 or 500, *per Annum*, then the like Totals from 1626 to 36, which makes me think, that *Teeth* also were thrust in under the Title of *Chrysooms*, and *Infants*, in as much as in the said years, from 1629 to 1639, the number of *worms*, and *Teeth*, wants by above 400 *per Annum* of what we find in following years.

C A P. IV.

Of the Plague.

1. **B**Efore we leave to discourse of the *Casualties*, we shall add something concerning that greatest *Disease*, or *Casualty* of all, The *Plague*.

There

There have been in *London*, within this Age, four Times of great *Mortality*, that is to say, the years 1592, and 1593, 1603, 1625, and 1636.

There died <i>Anno</i> 1592 from <i>March</i> to <i>December</i> ,	25886
Whereof of the <i>Plague</i>	11503
<i>Anno</i> 1593	17844
Whereof of the <i>Plague</i>	10662
<i>Christned</i> in the said year	4021
<i>Anno</i> 1603 within the same space of time were <i>Buried</i>	37294
Whereof of the <i>Plague</i>	30561
<i>Anno</i> 1625, within the same space,	51758
Whereof of the <i>Plague</i>	35417
<i>Anno</i> 1636, from <i>April</i> to <i>December</i>	23359
Whereof of the <i>Plague</i>	10400

2. Now it is manifest of it selfe, in which of these years most died; but in which of them was the greatest *Mortality* of all *Diseases* in general, or of the *Plague* in particular, we discover thus. In the year 1592, and 1636, we finde the proportion of those dying of the *Plague* in the whole to be near alike, that is about 10 to 23. or 11 to 25. or as about two to five.

3. In the year 1625. we finde the *Plague* to bear unto the whole in proportion as 35 to 51. or 7 to 10, that is almost the triplicate of the former proportion, for the *Cube* of 7. being 343. and the *Cube* of 10 being 1000. the said 343. is not $\frac{1}{3}$ of 1000.

4. In *Anno* 1603. the proportion of the *Plague* to the whole was as 30. to 37. viz. as 4. to 5. which is yet greater then the last of 7 to 20. For if the Year 1625. had been as great a *Plague*-Year as 1603. there must

must have died not onely 7 to 10. but 8 to 10. which in those great numbers makes a vast difference.

5. We must therefore conclude the Year 1603 to have been the greatest *Plague*-Year of this age.

6. Now to know in which of these 4. was the greatest Mortality at large, we reason thus,

<i>Anno</i> 1592	Buried ————— 26490	} or as {	6 1
	Christned ————— 4277		
<i>Anno</i> 1603	There died in the whole	} or as {	8 1
	Year of all ——— 38244		
	Christned ——— 4784		
1. to 8. or 1. $\frac{1}{4}$. to 10.	<i>Anno</i> 1625. Year ——— 54265	} or as {	8 1
	Christned 6983		
<i>Anno</i> 1636	There died, <i>ut supra</i> ——— 23359	} or as {	5 2
	Christned ————— 9522		

7. From whence it appears, that *Anno* 1636, the Christnings were about $\frac{2}{3}$ parts of the Burials. *Anno* 1592 but $\frac{1}{2}$. but in the Year 1603, and 1625 not above an eighth: so that the said two years were the years of greatest *Mortality*. We said that the year 1603 was the greatest *Plague*-year. And now we say, that the same was not a greater year of *Mortality* then *Anno* 1625. Now to reconcile these two Positions, we must alledg, that *Anno* 1625 there was error in the Accompts, or Distinctions of the *Casualties*; that is, more died of the *Plague* then were accounted for under that name. Which Allegation we also prove thus, *viz.*

8. In the said year 1625 there are said to have died of the *Plague* 35417, and of all other *Diseases* 18848: whereas in the years, both before, and after the same, the ordinary number of Burials was between 7 and 8000, so that if we add about 11000 (which is the difference between 7 and 18) to our 35, the whole will be 46000, which bears to the whole 54000, as about 4 to 5 thereby rendering the said year 1625 to be as great a *Plague*-year as that of 1603, and no greater; which answers to what we proved before, *viz.* that the *Mortality* of the two Years was equal.

9. From whence we may probably suspect, that about $\frac{1}{4}$ part more died of the *Plague* than are returned for such; which we further prove by noting, that *Anno* 1636 there died 10400 of the *Plague*, the $\frac{1}{4}$ whereof is 2600. Now there are said to have died of all other diseases that Year 12959, out of which number deducting 2600 there remains 10359, more than which there died not in several years next before and after the said Year 1636.

10. The next Observation we shall offer is, That the *Plague* of 1603 lasted eight Years. In some whereof there died above 4000, in others above 2000, and in but one less than 600: whereas in the Year 1624 next preceding, and in the year 1626 next following the said great *Plague*-year 1625; there died in the former but 11, and in the latter but 134 of the *Plague*. Moreover in the said year 1625 the *Plague* decreased from its utmost number 4461 a week to below 1000 within six weeks.

11. The *Plague* of 1636 lasted twelve Years, in eight whereof there died 2000 *per annum* one with another,

other, and never under 300. The which shews, that the Contagion of the *Plague* depends more upon the Disposition of the *Air*, then upon the *Effluvia* from the Bodies of men.

12. Which also we prove by the sudden jumps, which the *Plague* hath made, leaping in one Week from 118 to 927: and back again from 993 to 258: and from thence again the very next Week to 852. The which effects must surely be rather attributed to change of the *Air*, then of the Constitution of Mens Bodies, otherwise then as this depends upon that.

13. It may be also noted, That many times other *Pestilential* Diseases, as *Purple-Fevers*, *Small Pox*, &c. do forerun the *Plague* a Year, two, or three; for in 1622 there died but 8000: in 1623, 11000: in 1624, about 12000: till in 1625 there died of all Diseases above 54000.

CHAP. V.

Other Observations upon the Plague, and Casualties.

1. **T**HE *Decrease*, and *Increase* of People is to be reckoned chiefly by *Christenings*, because few bear children in *London* but *Inhabitants*, though others die there. The *Accompts* of *Christenings* were well kept until differences in *Religion* occasioned some neglect therein, although even these neglects we must confess to have been regular, and proportionable.

2. By the numbers and proportions of *Christenings* therefore we observe as followeth, *viz.*

First,

First, That (when from *December* 1602, to *March* following, there was little, or no *Plague*) then the *Christenings* at a *Medium* were between 110 and 130 *per Week*, few *Weeks* being above the one, or below the other; but when from thence to *July* the *Plague* encreased, that then the *Christenings* decreased to under 90.

Secondly, The Question is, Whether *Teeming-women* died, or fled, or miscarried? The latter at this time seems most probable, because even in the said space, between *March*, and *July*, there died not above twenty *per Week* of the *Plague*, which small number could neither cause the death, or flight of so many *Women*, as to alter the proportion $\frac{1}{4}$ part lower.

3. Moreover, We observe from the 21 of *July* to the 12 of *October* the *Plague* encreasing reduced the *Christenings* to 70 at a *Medium*, diminishing the above proportion down to $\frac{2}{3}$. Now the cause of this must be flying, and death, as well as Miscarriages, and Abortions; for there died within that time about 25000, whereof many were certainly *Women-with-child*: besides the fright of so many dying within so small a time might drive away so many others, as to cause this effect.

4. From *December* 1624, to the middle of *April* 1625, there died not above five a *Week* of the *Plague*, one with another. In this time, the *Christenings* were one with another 180. The which decreased gradually by the 22 of *September* to 75, or from the proportion of 12 to 5, which evidently squares with our former Observation.

5. The next Observation we shall offer is, The time, wherein the City hath been *Re-peopled* after a

great *Plague*; which we affirm to be by the second year. For in 1627 the *Christenings* (which are our Standard in this Case) were 8408, which in 1624 next preceding the *Plague*-year 1625 (that had swept away above 54000) were but 8299, and the *Christenings* of 1626 (which were but 6701) mounted in one year to the said 8408.

6. Now the Cause hereof, for as much as it cannot be a supply by Procreations; *Ergo*, it must be by new Affluxes to *London* out of the Countrey.

7. We might fortifie this Assertion by shewing, that before the *Plague*-year, 1603, the *Christenings* were about 6000, which were in that very year reduced to 4789, but crept up the next year 1604 to 5458, recovering their former ordinary proportion in 1605 of 6504, about which proportion it stood till the year 1610.

8. I say, it followeth, that, let the *Mortality* be what it will, the City repairs its loss of Inhabitants within two years, which Observation lessens the Objection made against the value of houses in *London*, as if they were liable to great prejudice through the loss of Inhabitants by the *Plague*.

CHAP. VI.

Of the Sickliness, Healthfulness, and Fruitfulness of Seasons.

1. **H**AVING spoken of *Casualties*, we come next to compare the sickliness, healthfulness, and fruitfulness

fruitfulness of the several Years, and Seasons, one with another. And first, having in the Chapters foregoing mentioned the several years of *Plague*, we shall next present the several other sickly years; we meaning by a *sickly Year* such wherein the *Burials* exceed those, both of the precedent, and subsequent years, and not above 200 dying of the *Plague*, for such we call *Plague-Years*; and this we do, that the World may see, by what spaces, and intervals we may hereafter expect such times again. Now, we may not call that a more sickly year, wherein more die, because such excess of *Burials* may proceed from encrease, and access of People to the City onely.

2. Such sickly years were 1618, 20, 23, 24, 1632, 33, 34, 1649, 52, 54, 56, 58, 61, as may be seen by the Tables.

3. In reference to this Observation we shall present another, namely, That the more sickly the years are, the less fecund, or fruitfull of Children also they be. Which will appear, if the number of Children born in the said sickly years be less, then that of the years, both next preceding, and next following; all which, upon view of the Tables, will be found true, except in a very few Cases, where sometimes the precedent, and sometimes the subsequent years vary a little, but never both together. Moreover, for the confirmation of this Truth, we present you the year 1660, where the *Burials* were fewer then in either of the two next precedent years by 2000, and fewer then in the subsequent by above 4000. And withall, the number of *Christenings* in the said year 1660 was far greater then in any of the three years next foregoing.

4. As to this year 1660, although we would not be thought *Superstitious*, yet it is not to be neglected, that in the said year was the *King's Restoration* to His Empire over these three Nations, as if God Almighty had caused the healthfulness and fruitfulness thereof to repair the *Bloodshed*, and *Calamities*, suffered in His absence. I say, this conceit doth abundantly counterpoise the Opinion of those, who think great *Plagues* come in with *King's* reigns, because it hapned so twice, *viz.* Anno 1603, and 1625, whereas as well the year 1648, wherein the present *King* commenced His right to reign, as also the year 1660, wherein He commenced the exercise of the same, were both eminently healthful: which clears both *Monarchy*, and our present *King's Family* from what seditious men have surmised against them.

5. The Diseases, which beside the *Plague* make years unhealthful in this City, are *Spotted-Fevers*, *Small-Pox*, *Dysentery*, called by some *The Plague in the Guts*, and the unhealthful Season is the *Autumn*.

CHAP. VII.

Of the difference between Burials, and Christenings.

1. **T**HE next Observation is, That in the said Bills there are far more *Burials*, then *Christenings*. This is plain, depending onely upon *Arithmetical* computation; for, in 40 years, from the year 1603, to the year 1644, *exclusive* of both years, there have been set down (as happening within the same ground, space,

space, or Parishes) although differently numbered, and divided, 363935 *Burials*, and but 330747 *Christnings* within the 97, 16, and 10 out-Parishes; those of *Westminster, Lambeth, Newington, Redriff, Stepney, Hackney, and Islington*, not being included.

2. From this single Observation it will follow, That *London* should have decreased in its People, the contrary whereof we see by its daily encrease of Buildings upon new foundations, and by the turning of great Palacious Houses into smal Tenements. It is therefore certain, that *London* is supplied with People from out of the Countrey, whereby not onely to repair the overplus difference of *Burials* above-mentioned, but likewise to encrease its *Inhabitants* according to the said encrease of housing.

3. This supplying of *London* seems to be the reason, why *Winchester, Lincoln*, and several other Cities have decreased in their Buildings, and consequently in their *Inhabitants*. The same may be suspected of many Towns in *Cornwal*, and other places, which probably, when they were first allowed to send *Burgeses* to the *Parliament*, were more populous then now, and bore another proportion to *London* then now; for several of those *Burroughs* send two *Burgeses*, whereas *London* it self sends but four, although it bears the fifteenth part of the charge of the whole Nation in all *Publick Taxes*, and Levies.

4. But, if we consider what I have upon exact enquiry found true, *viz.* That in the Country, within ninety years, there have been 6339 *Christnings*, and but 5280 *Burials*, the encrease of *London* will be salved without inferring the decrease of the People in the Country; and withall, in case all *England* have but fourteen

fourteen times more People then *London*, it will appear, how the said encrease of the Country may encrease the People, both of *London*, and it self; for if there be in the 97, 16, 10, and 7 Parishes, usually comprehended with in our Bills, but 460000 souls, as hereafter we shall shew, then there are in all *England*, and *Wales*, 6440000 Persons, out of which substract 460000, for those in and about *London*, there remains 5980000 in the Country, the which encreasing about $\frac{1}{7}$ part in 40 years, as we shall hereafter prove, doth happen in the Country, the whole encrease of the Country will be about 854000 in the said time, out of which number if but about 250000 be sent up to *London* in the said 40 years, viz. about 6000 *per Annum*, the said *Missions* will make good the alterations, which we finde to have been in, and about *London*, between the years 1603 and 1644 above-mentioned, But that 250000 will do the same, I prove thus: viz. in the 8 years, from 1603 to 1612, the *Burials* in all the Parishes, and of all Diseases, the *Plague* included, were at a *Medium* 9750 *per Annum*. And between 1635 and 1644 were 18000, the difference wherof is 8250, which is the Total of the encrease of the *Burials* in 40 years, that is about 206 *per Annum*. Now, to make the *Burials* encrease 206 *per Annum*, there must be added to the City thirty times as many (according to the proportion of 3 dying out of 11 Families) viz. 6180 *Advena*, the which number multiplied again by the 40 years, makes the *Product* 247200, which is less then the 250000 above-propounded; so as there remains above 600000 of encrease in the Country within the said 40 years, either to render it more populous, or send forth into other Colonies,

or Wars. But that *England* hath fourteen times more People, is not improbable, for the Reasons following.

1. *London* is observed to bear about the fifteenth proportion of the whole Tax.

2. There is in *England*, and *Wales*, about 39000 square Miles of Land, and we have computed, that in one of the greatest Parishes in *Hantspire*, being also a Market-Town, and containing twelve square Miles, there are 220 Souls in every square Mile, out of which I abate $\frac{1}{4}$ for the over-plus of People more in that Parish, then in other wilde Counties. So as the $\frac{3}{4}$ parts of the said 220, multiplied by the Total of square Miles, produces 6400000 Souls in all *London* included.

3. There are about 10000 Parishes in *England*, and *Wales*, the which, although they should not contain the $\frac{1}{3}$ part of the Land, nor the $\frac{1}{4}$ of the People of that Country-Parish, which we have examined, yet may be supposed to contain about 600 People, one with another: according to which Account there will be six Millions of People in the Nation. I might add, that there are in *England*, and *Wales*, about five and twenty Millions of Acres at 16 $\frac{1}{2}$ Foot to the Perch; and if there be six Millions of People, then there is about four Acres for every head, which how well it agrees to the Rules of Plantation, I leave unto others, not onely as a means to examine my Assertion, but as an hint to their enquiry concerning the fundamental Trade, which is Husbandry, and Plantation.

4. Upon the whole matter we may therefore conclude, That the People of the whole Nation do increase, and consequently the decrease of *Winchester*,

Lincoln, and other like places, must be attributed to other Reasons, then that of refurnishing *London* onely.

5. We come to shew, why although in the Country the *Christenings* exceed the *Burials*, yet in *London* they do not. The general Reason of this must be, that in *London* the proportion of those subject to die, unto those capable of breeding, is greater then in the Country; That is, let there be an hundred Persons in *London*, and as many in the Country; we say, that, if there be 60 of them Breeders in *London*, there are more then 60 in the Country, or else we must say, that *London* is more unhealthful, or that it inclines men and women more to Barrenness, then the Country: which by comparing the *Burials*, and *Christenings* of *Hackney*, *Newington*, and the other Country-Parishes, with the most *Smoaky*, and *Stinking* parts of the City, is scarce discernable in any considerable degree.

6. Now that the Breeders in *London* are proportionably fewer then those in the Country arises from these reasons, *viz.*

1. All, that have business to the Court of the King, or to the Courts of Justice, and all Country-men coming up to bring Provisions to the City, or to buy Foreign Commodities, Manufactures, and Rarities, do for the most part leave their Wives in the Country.

2. Persons coming to live in *London* out of curiosity, and pleasure, as also such as would retire, and live privately, do the same, if they have any.

3. Such, as come up to be cured of Diseases, do scarce use their Wives *pro tempore*.

4. That many Apprentices of *London*, who are bound

bound seven, or nine years from Marriage, do often stay longer voluntarily.

5. That many Sea-men of *London* leave their Wives behind them, who are more subject to dy in the absence of their Husbands, then to breed either without men, or with the use of many promiscuously.

6. As for unhealthiness, it may well be supposed, that although seasoned Bodies may, and do live near as long in *London*, as elsewhere, yet new-comers, and Children do not: for the *Smoaks*, *Stinks*, and close *Air* are less healthful then that of the Country; otherwise why do sickly Persons remove into the *Country-Air*? And why are there more old men in Countries then in *London*, *per rata*? And although the difference in *Hackney*, and *Newington*, above mentioned, be not very notorious, yet the reason may be their vicinity to *London*, and that the Inhabitants are most such, whose bodies have first been impaired with the *London-Air*, before they withdraw thither.

7. As to the causes of Barrenness in *London*, I say, that although there should be none extraordinary in the Native *Air* of the place; yet the intemperance in feeding, and especially the Adulteries, and Fornications, supposed more frequent in *London* then elsewhere, do certainly hinder breeding. For a Woman, admitting ten Men, is so far from having ten times as many Children, that she hath none at all.

8. Add to this, that the minds of men in *London* are more thoughtful, and full of business, then in the Country, where their work is *corporal* Labour, and Exercises. All which promote Breeding, whereas *Anxieties* of the mind hinder it.

CHAP. VIII.

Of the difference between the numbers of Males and Females.

THe next Observation is, That there be more *Males*, then *Females*.

1. There have been Buried from the year 1628, to the year 1662, *exclusivè*, 209436 *Males*, and but 190474 *Females*: but it will be objected, That in *London* it may indeed be so, though otherwise elsewhere; because *London* is the great Stage and Shop of business, wherein the *Masculine Sex* bears the greatest part. But we Answer, That there hath been also *Christened* within the same time 139782 *Males*, and but 130866 *Females*, and that the Country-Accompts are consonant enough to those of *London* upon this matter.

2. What the Causes hereof are we shall not trouble our selves to conjecture, as in other Cases: onely we shall desire, that Travellers would enquire, whether it be the same in other Countries.

3. We should have given an Accompt, how in every Age these proportions change here, but that we have Bills of distinction but for 32 years, so that we shall pass from hence to some Inferences from this Conclusion; as first,

I. That *Christian Religion*, prohibiting *Polygamy*, is more agreeable to the *Law of Nature*, that is, the *Law of God*, then *Mahumetism*, and others, that allow it: for one man his having many women, or wives, by Law, signifies nothing, unless there were many women to one man in Nature also.

II. The obvious Objection hereunto is, That one *Horse*, *Bull*, or *Ram*, having each of them many *Females*, do promote increase. To which I Answer, That although perhaps there be naturally, even of these *species*, more *Males*, then *Females*, yet *artificially*, that is, by making *Geldings*, *Oxen*, and *Weathers*, there are fewer. From whence it will follow, That when by experience it is found how many *Ewes* (suppose twenty) one *Ram* will serve, we may know what proportion of *male-Lambs* to castrate, or geld, *viz.* nineteen, or thereabouts: for if you emasculate fewer, *viz.* but ten, you shall by promiscuous copulation of each of those ten with two *Females*, hinder the increase so far, as the admittance of two *Males* will do it: but, if you castrate none at all, it is highly probable, that, every of the twenty *Males* copulating with every of the twenty *Females*, there will be little, or no conception in any of them all.

III. And this I take to be the truest Reason, why *Foxes*, *Wolves*, and other *Vermin Animals*, that are not gelt, increase not faster then *Sheep*, when as so many thousands of these are daily Butchered, and very few of the other die otherwise then of themselves.

4. We have hitherto said, There are more *Males*, then *Females*; we say next, That the one exceed the other by about a thirteenth part. So that although more men die violent deaths, then women, that is, more are slain in *Wars*, killed by *Mischance*, drowned at *Sea*, and die by the *Hand of Justice*; moreover, more men go to *Colonies*, and travel into foreign parts, then women; and lastly, more remain unmarried, then of women, as *Fellows of Colleges*, and *Apprentises*, above eighteen, &c. yet the said thirteenth

teenth part difference bringeth the business but to such a pass, that every woman may have an Husband, without the allowance of *Polygamy*.

5. Moreover, although a man be *Prolifique* fourty years, and a woman but five and twenty, which makes the *Males* to be as 560 to 325 *Females*, yet the causes above named, and the later marriage of the men, reduce all to an equality.

6. It appearing, that there were fourteen men to thirteen women, and that they die in the same proportion also, yet I have heard *Physicians* say, that they have two women Patients to one man, which Assertion seems very likely; for that women have either the *Green-sickness*, or other like Distempers, are sick of *Breedings*, *Abortions*, *Child-bearing*, *Sore-breasts*, *Whites*, *Obstructions*, *Fits of the Mother*, and the like.

7. Now, from this it should follow, that more women should die then men, if the number of *Burials* answered in proportion to that of *Sicknesses*: but this must be salved, either by the alledging, that the *Physicians* cure those *Sicknesses*, so as few more die, then if none were sick; or else that men, being more intemperate then women, die as much by reason of their *Vices*, as the women do by the *Infirmities* of their *Sex*, and consequently, more *Males* being born, then *Females*, more also die.

8. In the year 1642 many *Males* went out of *London* into the Wars then beginning, in so much, as I expected in the succeeding year, 1643, to have found the *Burials* of *Females* to have exceeded those of *Males*, but no alteration appeared; for as much, as I suppose, Trading continuing the same in *London*, all those, who lost their *Apprentices*, had others

others out of the Countrey; and if any left their Trades, and Shops, that others forthwith succeeded them: for, if employment for hands remain the same, no doubt but the number of them could not long continue in disproportion.

9. Another pregnant Argument to the same purpose (which hath already been touched on) is, That although in the very year of the *Plague* the *Christnings* decreased, by the dying, and flying of *Teeming-women*, yet the very next year after, they increased somewhat, but the second after, to as full a number as in the second year before the said *Plague*: for I say again, if there be encouragement for an hundred in *London*, that is, a Way how an hundred may live better then in the Countrey, and if there be void housing there to receive them, the evacuating of a fourth, or third part of that number, must soon be supplied out of the Countrey; so as, the great *Plague* doth not lessen the Inhabitants of the City, but of the Countrey, who in a short time remove themselves from thence hither, so long, untill the City, for want of receipt, and encouragement, regurgitates and sends them back.

10. From the difference between *Males* and *Females* we see the reason of making *Eunuchs* in those places where *Polygamy* is allowed, the latter being useles as to multiplication, without the former, as was said before in case of *Sheep*, and other *Animals*, usually gelt in these Countries.

11. By consequence, this practise of *Castration* serves as well to promote increase, as to meliorate the Flesh of those Beasts, that suffer it. For that Operation is equally practised upon *Horses*, which are not used for food, as upon those that are.

12. In *Papish* Countries where *Polygamy* is forbidden, if a greater number of *Males* oblige themselves to *Celibate*, then the natural over-plus, or difference between them and *Females* amounts unto: then multiplication is hindred: for if there be eight Men to ten Women, all of which eight men are married to eight of the ten Women, then the other two bear no Children, as either admitting no man at all, or else admitting Men as Whores (that is, more then ones) which commonly procreates no more, then if none at all had been used: or else such unlawful Copulations beget Conceptions, but to frustrate them by procured Abortions, or secret Murthers; all which returns to the same reckoning. Now, if the same proportion of women oblige themselves to a single life likewise, then such obligation makes no change in this matter of encrease.

13. From what hath been said appears the reason why the Law is, and ought to be so strict against Fornications, and Adulteries: for, if there were universal liberty, the Increase of Man-kind would be but like that of *Foxes* at best.

14. Now forasmuch as Princes are not onely Powerful, but Rich, according to the number of their People (Hands being the Father, as Lands are the Mother, and Womb of Wealth) it is no wonder why States by encouraging Marriage, and hindering Licentiousness, advance their own Interest, as well as preserve the Laws of God from contempt, and violation.

15. It is a Blessing to Man-kind, that by this over-plus of *Males* there is this natural Bar to *Polygamy*: for in such a state women could not live in that parity,

parity, and equality of expence with their Husbands; as now, and here they do.

16. The reason whereof is, not, that the Husband cannot maintain as splendidly three, as one; for he might, having three Wives, live himself upon a quarter of his Income, that is in a parity with all three, as well as, having but one, live in the same parity at half with her alone: but rather, because that to keep them all quiet with each other, and himself, he must keep them all in greater awe, and less splendour, which power he having, he will probably use it to keep them all as low, as he pleases, and at no more cost then makes for his own pleasure; the poorest Subjects (such as this plurality of Wives must be) being most easily governed.

CHAP. IX.

Of the growth of the City.

1. **I**N the year 1593 there died in the ninety seven Parishes within the walls, and the sixteen without the walls (besides 421 of the *Plague*) 3508. And the next year 3478, besides 29 of the *Plague*: in both years 6986. Twenty years after, there died in the same ninety seven, and sixteen Parishes, 12110, viz. Anno 1614, 5873; and Anno 1615, 6237: so as the said Parishes are increased, in the said time, from seven to twelve, or very near thereabouts.

2. Moreover, the *Burials* within the like space of the next twenty years, viz. Anno 1634, and 1635, were 15625, viz. as about twenty four to thirty one: the which last of the three numbers, 15625, is much

more then double to the first 6986, *viz.* the said Parishes have in forty years encreased from twenty three to fifty two.

3. Where is to be noted, That although we were necessitated to compound the said ninety seven with the sixteen Parishes, yet the sixteen Parishes have encreased faster then the ninety seven. For, in the year 1620, there died within the walls 2726, and in 1660 there died but 3098 (both years being clear of the *Plague* :) so as in this forty years the said ninety seven Parishes have encreased but from nine to ten, or thereabouts, because the housing of the said ninety seven Parishes could be no otherwise encreased, then by turning great Houses into Tenements, and building upon a few Gardens.

4. In the year 1604 there died in the ninety seven Parishes 1518, and of the *Plague* 280. And in the year 1660, 3098, and none of the *Plague*, so as in fifty six years the said Parishes have doubled. Where note, That forasmuch as the said year 1604 was the very next year after the great *Plague* 1603 (when the City was not yet re-peopled) we shall rather make the comparison between 2014, which died *Anno* 1605, and 3431 *Anno* 1659: choosing rather from hence to assert, that the said ninety seven, and sixteen Parishes encreased from twenty to thirty four, or from ten to seventeen in fifty four years, then from one to two in fifty six, as in the last foregoing *Paragraph* is set down.

5. *Anno* 1605 there died in the sixteen out-Parishes 2974, and *Anno* 1659, 6988: so as in the fifty four years the said Parishes have encreased from three to seven.

6. *Anno*

6. Anno 1605 there died in the eight out-Parishes 960, Anno 1659 there died in the same scope of Ground, although called now ten Parishes (the *Savoy*, and *Covent-Garden* being added) 4301: so as the said Parishes have encreased, within the said fifty four years, more then from one to four.

7. Moreover, there was Buried in all, Anno 1605, 5948, and Anno 1659, 14720, viz. about two to five.

8. Having set down the proportions, wherein we find the said three great Divisions of the whole Pyle, called *London*, to have encreased; we come next to shew what particular Parishes have had the most remarkable share in these Augmentations. Viz. of the ninety seven Parishes within the Walls the encrease is not very discernable, but where great houses formerly belonging to Noblemen, before they built others near *White-hall*, have been turned into Tenements, upon which Accompt *Alballows upon the Wall* is encreased by the conversion of the Marques of *Winchester's* house, lately the *Spanish* Ambassadour's, into a new street, the like of *Alderman Freeman's*, and *La Motte's* near the *Exchange*, the like of the Earl of *Arundel's* in *Loth-bury*, the like of the Bishop of *London's* Palace, the Dean of *Paul's*, and the Lord *River's* house now in hand, as also of the *Duke's-Place*, and others heretofore.

9. Of the sixteen Parishes next without the Walls *Saint Gile's Cripplegate* hath been most enlarged, next to that *Saint Olave's Southwark*, then *Saint Andrew's Holborn*, then *White-Chapel*, the difference in the rest not being considerable.

10. Of the out-Parishes now called ten, formerly nine, and before that eight, *Saint Gile's*, and *Saint*

Martins in the fields, are most encreased, notwithstanding *Saint Paul's Covent-Garden* was taken out of them both.

11. The general observation, which arises from hence is, That the City of *London* gradually removes *Westward*, and did not the *Royal Exchange*, and *London-Bridg* stay the Trade, it would remove much faster: for *Leaden-Hal-street*, *Bishop's-Gate*, and part of *Fan-church-street*, have lost their ancient Trade; *Grace-Church-street* indeed keeping it self yet entire, by reason of its conjunction with, and relation to *London-Bridg*.

12. Again, *Canning-street*, and *Watlin-street* have lost their Trade of *Woollen-Drapery* to *Paul's Church-Yard*, *Ludgate-hill*, and *Fleet-street*: the *Mercery* is gone from out of *Lumbard-street*, and *Cheap-side*, into *Pater-Noster-Row*, and *Fleet-street*.

13. The reasons whereof are, That the King's Court (in old times frequently kept in the City) is now always at *Westminster*. Secondly, the use of Coaches, whereunto the narrow streets of the old City are unfit, hath caused the building of those broader streets in *Covent-Garden*, &c.

14. Thirdly, where the *Consumption* of Commodity is, *viz.* among the Gentry, the venders of the same must seat themselves.

15. Fourthly, the cramming up of the void spaces, and gardens within the Walls, with houses, to the prejudice of *Light*, and *Air*, have made men build new ones, where they less fear those inconveniencies.

16. Conformity in Building to other civil Nations hath disposed us to let our old Wooden dark houses fall to decay, and to build new ones, whereby to answer all the ends above-mentioned.

17. Where note, That, when *Lud-gate* was the only *Western Gate* of the City, little Building was *Westward* thereof: but, when *Holborn* began to encrease, *New-gate* was made. But now both these Gates are not sufficient for the Communication between the Walled City, and its enlarged *Western Suburbs*, as daily appears by the intolerable stops, and embareffes of Coaches near both these Gates, especially *Lud-gate*.

CHAP. X.

Of the Inequality of Parishes.

1. **B**Efore we pass from hence, we shall offer to consideration the inequality of Parishes in, and about *London*, evident in the proportion of their respective *Burials*; for in the same year were Buried in *Cripple-gate-Parish* 1191. that but twelve died in *Trinity-Minories*, *St. Saviour's Southwark*, and *Botolph's Bishop-gate*, being of the middle size, as burying five and 600 *per Annum*: so that *Cripple-gate* is an hundred times as big as the *Minories*, and 200 times as big as *St. John the Euangelist's*, *Mary-Coal-Church*, *Bennet's-Grace-Church*, *Matthew-Friday-street*, and some others within the City.

2. Hence may arise this Question, Wherefore should this inequality be continued? If it be Answered, Because that *Pastours* of all sorts, and sizes of Abilities, may have Benefices, each man according to his merit: we Answer, That a two hundredth part of the best *Parson's* learning is scarce enough for a *Sexton*. But besides, there seems no reason of any difference

difference at all, it being as much Science to save one single soul, as one thousand.

3. We encline therefore to think the Parishes should be equal, or near, because, in the *Reformed Religions*, the principal use of *Churches* is to Preach in: now the bigness of such a *Church* ought to be no greater, then that, unto which the voice of a *Preacher* of middling Lungs will easily extend: I say easily, because they speak an hour, or more together.

4. The use of such large *Churches*, as *Paul's*, is now wholly lost, we having no need of saying perhaps fifty *Masses* all at one time; nor of making those grand *Processions* frequent in the *Romish Church*; nor is the shape of our *Cathedral* proper at all for our *Preaching Auditories*, but rather the Figure of an *Amphi-Theatre* with Galleries, gradually over-looking each other: for unto this Condition the Parish-*Churches* of *London* are driving apace, as appears by the many Galleries every day built in them.

5. Moreover, if Parishes were brought to the size of *Coalman-street*, *Alballows-Barking*, *Christ-Church*, *Black-Friers*, &c. in each whereof die between 100 and 150, *per Annum*, then an hundred Parishes would be a fit and equal Division of this great charge, and all the *Ministers* (some whereof have now scarce forty pounds *per Annum*) might obtain a subsistence.

6. And lastly, The *Church-Wardens*, and *Over-seers* of the *Poor* might finde it possible to discharge their Duties, whereas now in the greater out-Parishes many of the poorer Parishioners through neglect do perish, and many vicious persons get liberty to live as they please, for want of some heedfull Eye to overlook them.

CHAP. XI.

Of the number of Inhabitants.

I Have been several times in company with men of great experience in this City, and have heard them talk seldom under Millions of *People* to be in *London*, all which I was apt enough to believe, untill, on a certain day, one of eminent Reputation was upon occasion asserting, that there was in the year 1661 two Millions of *People* more then *Anno 1625*, before the great *Plague*. I must confess, that, untill this provocation, I had been frighted, with that misunderstood Example of *David*, from attempting any computation of the people of this populous place; but hereupon I both examined the lawfulness of making such enquiries, and being satisfied thereof went about the work it self in this manner: *viz.*

2. First, I imagined, That, if the Conjecture of the worthy Person afore-mentioned had any truth in it, there must needs be about six or seven Millions of *People* in *London* now; but repairing to my Bills I found, that not above 15000 *per Annum* were buried; and consequently, that not above one in four hundred must die *per Annum*, if the Total were but six Millions.

3. Next considering, That it is esteemed an even lay, whether any man lives ten years longer, I supposed it was the same, that one of any ten might die within one year. But when I considered, that of the 15000 afore-mentioned about 5000 were *Abortive*, and *Still-born*, or died of *Teeth*, *Convulsion*, *Rickets*, or as *Infants*,
and

and *Chryfoms*, and *Aged*; I concluded, that of men, and women, between ten and fixty, there scarce died 10000 *per Annum* in *London*, which number being multiplied by 10, there must be but 100000 in all, that is not the $\frac{1}{60}$ part of what the *Alderman* imagined. These were but sudden thoughts on both sides, and both far from truth, I thereupon endeavoured to get a little nearer, thus: *viz.*

4. I considered, that the number of *Child-bearing women* might be about double to the *Births*: forasmuch as such women, one with another, have scarce more than one *Childe* in two years. The number of *Births* I found, by those years, wherein the *Registries* were well kept, to have been somewhat less than the *Burials*. The *Burials* in these late years at a *Medium* are about 13000, and consequently the *Christenings* not above 12000. I therefore esteemed the number of *Teeming women* to be 24000: then I imagined, that there might be twice as many *Families*, as of such women; for that there might be twice as many women *Aged* between 16 and 76, as between 16 and 40, or between 20 and 44; and that there were about eight Persons in a *Family*, one with another, *viz.* the Man, and his Wife, three Children, and three Servants, or Lodgers: now 8 times 48000 makes 384000.

5. Secondly, I finde by telling the number of *Families* in some *Parishes* within the walls, that 3 out of 11 *families per au.* have died: wherefore, 13000 having died in the whole, it should follow, there were 48000 *Families* according to the last-mentioned *Accompt*.

6. Thirly, the *Accompt*, which I made of the *Trained-Bands*, and *Auxiliary-Souldiers*, doth enough justify this *Accompt*.

7. And

7. And lastly, I took the Map of *London* set out in the year 1658 by *Richard Newcourt*, drawn by a scale of Yards. Now I guessed that in 100 yards square there might be about 54 Families, supposing every house to be 20 foot in the front: for on two sides of the said square there will be 100 yards of housing in each, and in the two other sides 80 each; in all 360 yards: that is 54 Families in each square, of which there are 220 within the Walls, making in all 11880 Families within the Walls. But forasmuch as there dy within the Walls about 3200 *per Annum*, and in the whole about 13000; it follows, that the housing within the Walls is $\frac{1}{4}$ part of the whole, and consequently, that there are 47520 Families in, and about *London*, which agrees well enough with all my former computations: the worst whereof doth sufficiently demonstrate, that there are two Millions of People in *London*, which nevertheless most men do believe, as they do, that there be three Women for one Man, whereas there are fourteen Men for thirteen Women, as else where hath been said.

8. We have (though perhaps too much at Random) determined the number of the inhabitants of *London* to be about 384000: the which being granted, we assert, that 199112 are *Males*, and 184886 *Females*.

9. Whereas we have found, that of 100 quick Conceptions about 36 of them die before they be six years old, and that perhaps but one surviveth 76, we, having seven *Decads* between six and 76, we sought six mean proportional numbers between 64, the remainder, living at six years, and the one, which surviveth 76, and finde, that the numbers following are

practically near enough to the truth ; for men do not die in exact Proportions, nor in Fractions, from whence arises this Table following.

<i>Viz.</i> of 100 there dies	The fourth	6
within the first six years	The next	4
The next ten years, or	The next	3
<i>Decad</i> ———— 24	The next	2
The second <i>Decad</i> — 15	The next	1
The third <i>Decad</i> — 9		

10. From whence it follows, that of the said 100 conceived there remain alive at six years end 64.

At sixteen years end	40	At fifty six	6
At twenty six	25	At sixty	3
At thirty six	16	At seventy six	1
At forty six	10	At eighty	0

11. It follows also, that of all, which have been conceived, there are now alive 40 *per Cent.* above sixteen years old, 25 above twenty six years old, & *sic deinceps*, as in the above-Table. There are therefore of Aged between 16, and 56, the number of 40, less by six, *viz.* 34; of between 26, and 66, the number of 25, less by three, *viz.* 22: & *sic deinceps*.

Wherefore, supposing there be 199112 *Males*, and the number between 16, and 56, being 34. It follows, there are 34 *per Cent.* of all those *Males* fighting Men in *London*, that is 67694, *viz.* near 70000: the truth whereof I leave to examination, only the $\frac{1}{3}$. of 67694, *viz.* 13539, is to be added for *Westminster, Stepney, Lambeth*, and the other distant Parishes; making in all 81233 fighting Men.

12. The next enquiry shall be, In how long time the City of *London* shall, by the ordinary proportion of Breeding, and Dying, double its breeding People

ple? I answer in about seven years, and (*Plagues considered*) eight. Wherefore since there be 24000 pair of Breeders, that is $\frac{1}{4}$ of the whole, it follows, that in eight times eight years the whole People of the City shall double without the access of Foreigners: the which contradicts not our Accompt of its growing from two to five in 56 years with such accesses.

13. According to this proportion, one couple viz. *Adam* and *Eve*, doubling themselves every 64 years of the 5610 years, which is the age of the World according to the *Scriptures*, shall produce far more People, than are now in it. Wherefore the World is not above 100 thousand years old, as some vainly imagine, nor above what the *Scripture* makes it.

CHAP. XII.

Of the Country-Bills.

WE have, for the present, done with our Observations upon the Accompts of *Burials*, and *Christnings*, in, and about *London*; we shall next present the Accompts of both *Burials*, *Christnings*, and also of *Weddings* in the Country, having to that purpose inserted Tables of 90 years for a certain Parish in *Hantsshire*, being a place neither famous for *Longevity*, and *Healthfulness*; nor for the contrary. Upon which Tables we observe,

1. That every *Wedding*, one with another, produces four Children, and consequently, that that is the proportion of Children, which any Marriagable man, or woman may be presumed shall have. For, though

a man may be Married more then once, yet, being once Married, he may die without any Issue at all.

2. That in this Parish there were born 15 *Females* for 16 *Males*, whereas in *London* there were 13 for 14, which shews, that *London* is somewhat more apt to produce *Males*, then the country. And it is possible, that in some other places there are more *Females* born, then *Males*: which, upon this variation of proportion, I again recommend to the examination of the curious.

3. That in the said whole 90 years the *Burials* of the *Males* and *Females* were exactly equal, and that in several *Decads* they differed not $\frac{1}{10}$ parts: That in one of the two *Decads*, wherein the difference was very notorious, there were Buried of *Males* 337, and of *Females* but 284, viz. 53 difference, and in the other there died contrariwise 338 *Males*, and 386 *Females*, differing 46.

4. There are also *Decads*, where the Birth of *Males* and *Females* differ very much, viz. about 60.

5. That in the said 90 years there have been born more, then buried in the said Parish (the which both 90 years ago, and also now, consisted of about 2700 Souls) but 1059, viz. not 12 *per Annum*, one year with another.

6. That these 1059 have in all probability contributed to the increase of *London*; since, as was said even now, it neither appears by the *Burials*, *Christnings*, or by the built of new-housing, that the said Parish is more populous now, then 90 years ago, by above two or 300 souls. Now, if all other places send about $\frac{1}{3}$ of their encrease, viz. about one out of 900 of their Inhabitants *Annually* to *London*, and that there be 14 times as many people in *England*, as there be in *London* (for

(for which we have given some reasons) then *London* encreases by such *Advena* every year above 6000: the which will make the Accompt of *Burials* to swell about 200 *per Annum*, and will answer the encreases. We observe, It is clear, that the said Parish is encreased about 300, and it is probable, that three or four hundred more went to *London*, and it is known, That about 400 went to *New-England*, the *Caribe-Islands*, and *New-found-Land*, within these last fourty years.

7. According to the *Medium* of the said whole 90 years, there have been five *Christnings* for four *Burials*, although in some single *Years*, and *Decads*, there have been three to two, although sometimes (though more rarely) the *Burials* have exceeded the *Births*, as in the case of *Epidemical Diseases*.

8. Our former Observation, That healthfull years are also the most fruitfull, is much confirmed by our Country Accompts; for, 70 being our Standard for *Births*, and 58 for *Burials*, you shall finde, that where fewer then 58 died, more then 70 were born. Having given you a few instances thereof, I shall remit you to the Tables for the general proof of this Assertion.

Viz. Anno 1633, when 104 were born, there died but 29. Now, in none of the whole 90 years more were born then 103, and but in one, fewer then 29 died, *viz.* 28 Anno 1658. Again Anno 1568, when 93 were born, but 42 died. Anno 1584, when 90 were born, but 41 died. Anno 1650, when 86 were born, but 52 died. So that by how much more are born, by so much (as it were) the fewer die. For when 103 were born, but 29 died: but when but 86 were born, then 52 died.

On the other-side Anno 1638, when 156 died *per Annum*

Annum, which was the greatest year of *Mortality*, then less then the meer Standard 70, *viz.* but 66, were born. Again *Anno* 1644, when 137 died, but 59, were born. *Anno* 1597, when 117 died, but 48 were born. And *Anno* 1583, when 87 died, but 59 were born.

A little Irregularity may be found herein, as that *Anno* 1612, when 116 died (*viz.* a number double to our Standard 58, yet) 87 (*viz.* 17 above the Standard 70.) were born. And that, when 89 died, 75 were born: but these differences are not so great, nor so often, as to evert our Rule, which besides the Authority of these *Accompts* is probable in it self.

9. Of all the said 90 years the year 1638 was the most *Mortal*, I therefore enquired, whether the *Plague* was then in that Parish, and having received good satisfaction that it was not (which I the rather believe, because, that the *Plague* was not then considerable at *London*) but that it was a Malignant *Fever*, raging so fiercely about *Harvest*, that there appeared scarce hands enough to take in the Corn: which argues, considering there were 2700 Parishoners, that seven might be sick for one that died: whereas of the *Plague* more die then recover. Lastly, these People lay longer sick then is usual in the *Plague*, nor was there any mention of *Sores*, *Swellings*, *blew-Tokens*, &c. among them. It follows, that the proportion between the greatest, and the least *Mortalities* in the Country are far greater then at *London*. Forasmuch as the greatest 156 is above *quintuple* unto 28 the least, whereas in *London* (the *Plague* excepted, as here it hath been) the number of *Burials* upon other *Accompts* within no *Decad* of years hath been double, whereas in the Country it hath been *quintuple* not only within the whole ninety years,

years, but also within the same *Decad*: for *Anno 1633* there dyed but 29, and *Anno 1638* the above-mentioned number of 156. Moreover, as in *London*, in no *Decad*, the Burials of one year are double to those of another: so in the Country they are seldom not more then so. As by this Table appears,

<i>Decad</i>	greatest	least
		<i>number of Burials</i>
1	66	34
2	87	39
3	117	38
4	53	30
5	116	51
6	89	50
7	156	35
8	137	46
9	80	28

Which shews, that the opener and freer *Airs* are most subject both to the good and bad Impressions, and that the *Fumes*, *Steams*, and *Stenches* of *London* do so medicate, and impregnate the *Air* about it, that it becomes capable of little more, as if the said *Fumes* rising out of *London* met with, opposed, and justied backwards the Influences falling from above, or resisted the Incurfion of the Country-*Airs*.

10. In the last *Paragraph* we said, that the Burials in the Country were sometime *quintuple* to one another, but of the Christenings we affirm, that within the same *Decad* they are seldom double, as appears by this Table, *viz.*

Decad

greatest

Decad least
number of Burials

1	70	50
2	90	45
3	71	52
4	93	60
5	87	61
6	85	63
7	103	66
8	87	62
9	86	52

Now, although the disproportions of Births be not so great as that of *Burials*, yet these disproportions are far greater then at *London*: for let it be shewn in any of the *London Bills*, that within two years the *Christenings* have decreased, $\frac{1}{2}$ or encreased double, as they did *Anno 1584*, when 90 were born, and *Anno 1586*, wherein were but 45 : or to rise from 52, as *Anno 1593*, to 71, as in the next year 1594. Now these disproportions both in Births, and Burials, confirm what hath been before Asserted, that *Healthfulness*, and *Fruitfulness* go together, as they would not, were there not disproportions in both, although proportional.

II. By the Standard of Burials in this Parish I thought to have computed the number of Inhabitants in it, *viz.* by multiplying 58 by 4, which made the *Product* 232, the number of Families. Hereupon I wondred, that a Parish containing a large Market-Town, and 12 Miles compass, should have but 232 Houses, I then multiplied 232 by 8, the *Product* whereof was 1856, thereby hoping to have had the number

ber

ber of the Inhabitants, as I had for *London*; but when upon enquiry I found there had been 2100 Communicants in that Parish in the time of a *Minister*, who forced too many into that Ordinance, and that 1500 was the ordinary number of Communicants in all times, I found also, that for as much as there were near as many under 16 years old, as there are above, *viz.* Communicants, I concluded, that there must be about 2700, or 2800 Souls in that Parish: from whence it follows, that little more then one of 50 dies in the Country, whereas in *London* it seems manifest, that about one in 32 dies, over and above what dies of the *Plague*.

12. It follows therefore from hence, what I more faintly asserted in the former Chapter, that the Country is more *healthful*, then the City, that is to say, although men dy more regularly, and less *per saltum* in *London*, then in the Country, yet, upon the whole matter, there die fewer *per rata*; so as the Fumes, Steams, and Stenches above-mentioned, although they make the Air of *London* more equal, yet not more *Healthful*.

13. When I consider, That in the Country seventy are Born for fifty eight Buried, and that before the year 1600 the like happened in *London*, I considered, whether a City, as it becomes more *populous*, doth not, for that very cause, become more *unhealthful*: and inclined to believe, that *London* now is more *unhealthful*, then heretofore; partly for that it is more populous, but chiefly, because I have heard, that sixty years ago few *Sea-Coals* were burnt in *London*, which now are univerversally used. For I have heard, that *New-castle* is more *unhealthful* then other places, and

that many People cannot at all endure the smoak of *London*, not onely for its unpleasantsness, but for the suffocations, which it causes.

14. Suppose, that *Anno 1569* there were 2400 souls in that Parish, and that they increased by the *Births 70*, exceeding the *Burials 58*, it will follow, that the said 2400 cannot double under 200. Now, if *London* be less healthfull then the Country, as certainly it is, the *Plague* being reckoned in, it follows, that *London* must be doubling it self by generation in much above 200: but if it hath encreased from 2 to 5 in 54, as aforesaid, the same must be by reason of transplantation out of the Country.

The Conclusion.

IT may be now asked, to what purpose tends all this laborious buzzing, and groping? To know,

1. The number of the People?
2. How many *Males*, and *Females*?
3. How many Married, and Single?
4. How many *Teeming Women*?
5. How many of every *Septenary*, or *Decad* of years in *age*?
6. How many *Fighting Men*?
7. How much *London* is, and by what steps it hath increased?
8. In what time the Housing is replenished after a *Plague*?
9. What proportion die of each general and particular *Casualties*?

10. What

10. What years are Fruitfull, and Mortal, and in what Spaces, and Intervals, they follow each other ?
11. In what proportion Men neglect the Orders of the *Church*, and *Sects* have increased ?
12. The disproportion of Parishes ?
13. Why the *Burials* in *London* exceed the Christenings, when the contrary is visible in the Country ?

To this I might answer in general by saying, that those, who cannot apprehend the reason of these Enquiries, are unfit to trouble themselves to ask them.

2. I might answer by asking, Why so many have spent their times, and estates about the Art of making Gold ? which, if it were much known, would only exalt Silver into the place, which Gold now possesseth ; and if it were known but to some one Person, the same single *Adeptus* could not, nay, durst not enjoy it, but must be either a Prisoner to some Prince, and Slave to some Voluptuary, or else skulk obscurely up and down for his privacie, and concealment.

3. I might answer, That there is much pleasure in deducing so many abstruse, and unexpected inferences out of these poor despised Bills of *Mortality* ; and in building upon that ground, which hath lain waste these eighty years. And there is pleasure in doing something new, though never so little, without pestering the World with voluminous Transcriptions.

4. But I answer more seriously by complaining, That whereas the Art of Governing, and the true *Politiques*, is how to preserve the Subject in

Peace, and *Plenty*, that men study onely that part of it, which teacheth how to supplant, and over-reach one another, and how, not by fair out-running, but by tripping up each other's heels, to win the Prize.

Now, the Foundation, or Elements of this honest harmless *Policy* is to understand the Land, and the hands of the Territory to be governed, according to all their intrinsick, and accidental differences: as for example; It were good to know the *Geometrical* Content, Figure, and Scituation of all the Lands of a *Kingdom*, especially, according to its most natural, permanent, and conspicuous Bouds. It were good to know, how much Hay an Acre of every sort of Meadow will bear? how many Cattle the same weight of each sort of Hay will feed, and fatten? what quantity of Grain, and other Commodities the same Acre will bear in one, three, or seven years *communibus Annis*? unto what use each soil is most proper? All which particulars I call the intrinsick value: for there is also another value meerly accidental, or extrinsick, consisting of the Causes, why a parcel of Land, lying near a good Market, may be worth double to another parcel, though but of the same intrinsick goodness; which answers the Queries, why Lands in the *North* of *England* are worth but sixteen years purchase, and those of the *West* above eight and twenty. It is no less necessary to know how many People there be of each Sex, State, Age, Religion, Trade, Rank, or Degree, &c. by the knowledg whereof Trade, and Government may be made more certain, and Regular; for, if men knew the
 People,

People, as aforesaid, they might know the consumption they would make, so as Trade might not be hoped for where it is impossible. As for instance, I have heard much complaint, that Trade is not set up in some of the *South-western*, and *North-western* Parts of *Ireland*, there being so many excellent Harbours for that purpose, whereas in several of those places I have also heard, that there are few other Inhabitants, but such as live *ex sponte creatis*, and are unfit Subjects of Trade, as neither employing others, nor working themselves.

Moreover, if all these things were clearly, and truly known (which I have but guessed at) it would appear, how small a part of the People work upon necessary Labours, and Callings, *viz.* how many Women, and Children do just nothing, onely learning to spend what others get? how many are meer Voluptuaries, and as it were meer Gamesters by Trade? how many live by puzzling poor people with unintelligible Notions in Divinity, and Philosophie? how many by perswading credulous, delicate, and litigious Persons, that their Bodies, or Estates are out of Tune, and in danger? how many by fighting as Souldiers? how many by Ministeries of Vice, and Sin? how many by Trades of meer Pleasure, or Ornaments? and how many in a way of lazie attendance, &c. upon others? And on the other side, how few are employed in raising, and working necessary food, and covering? and of the speculative men, how few do truly studie *Nature*, and *Things*? The more ingenious not advancing much further then to write, and speak wittily about these matters.

I conclude, That a clear knowledge of all these particulars, and many more, whereat I have shot but at rovers, is necessary in order to good, certain, and easie Government, and even to balance Parties, and factions both in *Church* and *State*. But whether the knowledge thereof be necessary to many, or fit for others, then the Sovereign, and his chief Ministers, I leave to consideration.

The

The Table of Burials, and Christenings

Anno Dom.	97 Parishes	16 Parishes	Out-Pa- rishes	Buried in all	Besides of the Plague	Christned
1604	1518	2097	708	4323	896	5458
1605	2014	2974	960	5948	444	6504
1606	1941	2920	935	5796	2124	6614
1607	1879	2772	1019	5670	2352	6582
1608	2391	3218	1149	6758	2162	6845
1609	2494	3610	1441	7545	4240	6388
1610	2326	3791	1369	7486	1803	6785
1611	2152	3398	1166	6716	627	7014
	16715	24780	8747	50242	14752	52190
1612	2473	3843	1462	7778	64	6986
1613	2406	3679	1418	7503	16	6846
1614	2369	3504	1494	7367	22	7208
1615	2446	3791	1613	7850	37	7682
1616	2490	3876	1697	8063	9	7985
1617	2397	4109	1774	8280	6	7747
1618	2815	4715	2066	9596	18	7735
1619	2339	3857	1804	7990	9	8127
	19735	31374	13328	64436	171	60316
1620	2726	4819	2146	9691	21	7845
1621	2438	3759	1915	8112	11	8039
1622	2811	4217	2392	8943	16	7894
1623	3591	4721	2783	11095	17	7945
1624	3385	5919	2895	12199	11	8299
1625	5143	9819	3886	18848	35417	6983
1626	2150	3286	1965	7401	134	6701
1627	2325	3400	1988	7711	4	8408
	24569	39940	19970	84000	35631	62114
1628	2412	3311	2017	7740	3	8564
1629	2536	3992	2243	8771	0	9901
1630	2506	4201	2521	9237	1317	9315
1631	2459	3697	2132	8288	274	8524
1632	2704	4412	2411	9527	8	9584
1633	2378	3936	2078	8392	0	9997
1634	2937	4980	2982	10399	1	9855
1635	2742	4966	2943	10651	0	10034
	20694	33495	19327	73505	1603	75774

The Table of Burials, and Christenings in London.

Anno Dom.	97 parishes	16 Parishes	Out-Pa- rishes	Buried in all	Besides of the <i>Plague</i>	Christned
1636	2825	6924	3210	12959	10400	9522
1637	2288	4265	2128	8681	3082	9160
1638	3584	5926	3751	13261	363	10311
1639	2592	4344	2612	9548	314	10150
1640	2919	5156	3246	11321	1450	10350
1641	3248	5092	3427	11767	1375	10670
1642	3176	5245	3578	11999	1274	10370
1643	3395	5552	3269	12216	996	9410
	23987	42544	25221	91752	19244	80443
1644	2593	4274	2574	9441	1492	8104
1645	2524	4639	2445	9608	1871	7966
1646	2746	4872	2797	10415	2365	7163
1647	2672	4749	3041	10462	3597	7332
1648	2480	4288	2515	9283	611	6544
1649	2865	4714	2920	10499	67	5825
1650	2301	4138	2310	8749	15	5612
1651	2845	5002	2597	10804	23	6071
	21026	36676	21199	78896	10041	54617
1652	3293	5719	3546	12553	16	6128
1653	2527	4635	2919	10081	6	6155
1654	3323	6063	3845	13231	16	6620
1655	2761	5148	3439	11348	9	7004
1656	3327	6573	4015	13915	6	7050
1657	3014	5646	3770	12430	4	6685
1658	3613	1692	4443	14979	14	6170
1659	3431	6988	4301	14720	36	5690
	25288	47695	30278	103261	107	51502
1660	3098	5644	3926	12668	13	6971
1661	3804	7309	5532	16645	20	8855

The Table following contains the Number of *Burials*, and *Christnings* in the seven *Parishes* here under-mentioned, from the year 1636 unto the year 1659 *inclusive*; all which time the *Burials*, and *Christnings* were joyntly mentioned: the two last years the *Christnings* were omitted in the yearly *Bills*. This Table consists of seventeen Columns, the *Total* of all the *Burials* being contained in the sixteen Columns: which Number being added to the *Total* in the precedent Table of *Burials*, and *Christnings*, makes the *Total* of every yearly, or general Bill.

Note, where there follows a second Number under any year, it denotes those, who died that year of the Plague.

An.	Westmin		St. Martin		Lambeth		Stepney		Newing.		Hackney		Resr.		Tot. 7. Par.		Tot. 7. Par.	
	Do.	Bur.	Ch.	B.	Ch.	B.	Ch.	B.	Ch.	B.	Ch.	B.	Ch.	B.	Ch.	B.	Ch.	B.
1636	1107	556	95	56	213	137	1895	881	584	155	68	77	90	62	4056	1924		
	442		30		45		909		222		14		20		1707			
1637	963	496	94	72	173	137	952	838	183	172	68	70	74	51	2507	1836		
	301		17		18		153		16		6		10		521			
1638	1021	563	116	49	221	140	1209	908	255	146	101	69	74	78	2997	1953		
	126				8		11								145			
1639	546	543	88	53	195	132	970	956	187	159	84	53	81	52	2151	1948		
	4		2				2						1		9			
1640	754	665	94	54	187	142	1106	933	189	194	76	54	53	77	2459	2159		
	62		3		6		117						1		189			
1641	697	625	92	76	168	137	1250	1037	170	137	82	73	69	64	2508	2149		
	40		5		9		70				4				128			
1642	671	630	98	71	149	124	1270	1158	160	145	78	58	63	76	2489	2262		
	37		4		12		20		17		5		4		99			
1643	666	592	105	69	177	114	1167	1013	240	147	65	36	42	67	2471	2038		
	25		3		45		81		86				2		244			
1644	570	429	61	55	115	105	1187	933	123	101	54	45	70	82	2189	1750		
	35		8		8		269		44		3		17		384			
1645	621	444	55	63	146	114	1171	873	183	119	58	60	50	60	2284	1753		
	62		6		3		150		18		7		1		256			
1646	691	503	84	61	137	108	1230	960	156	130	76	63	47	43	2421	1868		
	76		8		5		97		14		9		2		203			
1647	739	464	108	56	161	94	1126	926	129	65	88	45	42	44	2393	1688		
	114		12		25		155		28		16		4		434			
1648	561	384	68	46	87	57	837	767			57	42	45	59	1635	1305		
	41		4				31				6				82			
1649	558	333	90	44	131	55	838	625			90	49			1807	1106		
			1				3								4			
1650	470	413	78	54	88	50	748	572	55	65	61	48	50	62	1550	1264		
1651	580	345	107	51	127	49	961	634	172	59	60	30	84	45	2091	1213		
1652	649	432	99	36	179	50	1212	657	198	85	72	33	74	37	2483	1330		
					1										1			
1653	567	394	69	46	120	54	1064	620	195	76	71	48	69	21	2155	1250		
1654	657	401	96	65	166	76	1252	803	236	106	88	31	75	46	2570	1526		
1655	676	414	95	86	134	128	1199	859	172	120	68	37	62	57	2406	1701		
1656	761	498	139	89	176	152	1255	963	248	127	67	46	66	45	2701	1920		
1657	705	473	112	67	231	137	1213	876	204	123	96	42	51	31	2612	1749		
1658	890	440	113	36	220	32	1486	892	181	99	91	30	48	16	2958	1645		
1659	822	415	116	56	193	103	1392	695	138	86	83	50	84	13	2828	1418		
1660	783		108		183		1151		114		65		33		2437			
1661	983		102		330		1561		340		102		87		3505			

The Table of Males, and Females, for London.

An. Dom.	Buried		Chriftened	
	Males	Females	Males	Females
1629	4668	4103	5218	4683
1630	5660	4894	4858	4457
1631	4549	4013	4422	4102
1632	4932	4603	4994	4590
1633	4369	4023	5158	4839
1634	5676	5224	5035	4820
1635	5548	5103	5106	4928
1636	12377	10982	4917	4605
	47779	43945	39708	37024
1637	6392	5371	4703	4457
1638	7168	6456	5359	4952
1639	5351	4511	5366	4784
1640	6761	6010	5518	5332
Total	73451	65293	60664	56549
1641	6872	6270	5470	5200
1642	7049	6224	5460	4910
1643	6842	6360	4793	4617
1644	5659	5274	4107	3997
1645	6014	5465	4047	3919
1646	6683	6097	3768	3395
1647	7313	6746	3796	3536
1648	5145	4749	3363	3181
	51577	47185	34804	32755
1649	5454	5112	3079	2746
1650	4548	4216	2890	2722
1651	5680	5147	3231	2840
1652	6543	6026	3220	2908
1653	5416	4671	3196	2959
1654	6972	6275	3441	3179
1655	6027	5330	3655	3349
1656	7365	6556	3668	3382
	44005	41333	26380	24085
1657	6578	5856	3396	3289
1658	7936	7057	3157	3013
1659	7451	7305	9209	2781
1660	7960	7158	3724	3247
Total	29925	27376	13186	12330
	198952	181187	135034	126759

The Table by Decads of years for the Country-Parish.

Decads of years	Married	Chriftened			Buried		
		Males	Females	Both	Males	Females	Both
15 { 69	190	312	302	614	214	221	435
78							
15 { 79	185	328	309	637	287	302	589
88							
15 { 89	175	342	274	616	337	284	621
98							
1 { 599	181	366	377	743	249	219	468
608							
16 { 09	197	417	358	775	338	386	724
18							
16 { 19	168	368	373	741	305	306	611
28							
16 { 29	153	418	413	831	317	319	636
38							
16 { 39	137	351	357	708	375	383	758
48							
16 { 49	182	354	320	674	218	220	438
58							
1598		3256	3083	6339	2640	2640	5280

The Table of the Country-Parish.

Years	Communicants	Weddings	Christned			Buried		
			M.	F.	Both	M.	F.	Both
1569		14	38	30	68	23	21	44
1570		19	29	32	61	21	25	46
1571		18	28	26	54	23	27	50
1572		23	32	32	54	20	14	34
1573		21	34	36	70	24	13	37
1574		16	21	29	50	28	38	66
1575		24	37	29	66	15	19	34
1576		22	33	37	70	16	18	34
1577		13	29	26	55	19	21	40
1578		20	31	35	66	25	25	50
		190	312	302	614	214	221	435
1579		15	35	36	71	27	27	54
80		21	43	31	74	38	41	79
81		29	29	33	62	34	24	58
82		22	28	29	57	18	21	39
83		22	32	27	59	35	52	87
84		15	46	44	90	22	19	41
85		15	26	21	47	15	27	42
86		18	22	23	45	24	37	61
87		13	34	31	65	43	36	79
1588		15	33	34	67	31	18	49
		185	328	309	637	287	302	589

The Table of the Country-Parish.

Years	Communi- cants	Wed- dings	Christened			Buried		
			M.	F.	Both	M.	F.	Both
1589		20	31	27	58	28	16	44
90		16	40	29	69	36	21	57
91		12	37	28	65	35	30	65
92		14	40	25	65	28	19	47
93		20	32	20	52	33	32	65
94		24	34	37	71	16	22	38
95		16	32	28	60	33	28	61
96		9	36	26	62	42	29	71
97		13	23	25	48	53	64	117
98		21	37	29	66	33	23	66
		175	342	274	616	337	284	631
1599		19	45	31	76	21	22	43
600		16	26	34	60	20	26	46
601		16	39	32	71	18	12	30
602		14	31	32	63	29	18	47
603		12	31	38	69	32	39	71
604		21	42	35	77	26	27	53
605		19	47	34	81	21	12	33
606		19	29	41	70	28	23	51
607		27	36	47	83	33	19	52
608		17	40	53	93	21	21	42
		181	366	377	743	249	219	468

The Table of the Country-Parish.

Years	Weddings	Christened			Buried		
		M.	F.	Both	M.	F.	Both
1609	23	30	31	61	24	41	65
10	19	46	30	76	33	40	73
11	25	40	41	81	41	32	73
12	20	55	32	87	53	63	116
13	24	41	33	74	47	41	88
14	25	50	35	85	27	36	63
15	22	35	48	83	28	36	64
16	14	38	36	74	27	41	68
17	17	45	31	76	35	28	63
1618	8	37	41	78	23	28	51
197		417	358	775	318	386	724
1619	21	37	43	80	26	28	54
20	20	34	51	85	18	30	48
21	21	31	37	68	28	36	64
22	23	45	38	83	20	26	46
23	14	40	36	76	56	31	87
24	19	30	33	63	29	35	64
25	7	37	41	78	36	20	56
26	9	30	35	65	21	29	50
27	18	45	23	68	24	29	53
1628	16	39	36	75	47	42	89
168		368	373	741	305	306	611

The Table of the Country-Parish.

Years	Weddings	Christened			Buried		
		M.	F.	Both.	M.	F.	Both
1629	22	53	38	91	46	28	74
30	8	58	45	103	26	27	53
31	20	42	29	71	26	33	59
32	16	43	50	93	15	21	36
33	12	38	65	103	18	11	29
34	23	30	45	75	18	26	44
35	11	39	32	71	18	17	35
36	15	50	37	87	42	48	90
37	13	35	36	71	25	35	60
1638	13	30	36	66	83	73	156
	153	418	413	831	317	319	636
1639	18	24	31	55	48	66	114
40	11	44	41	85	35	39	74
41	21	34	29	63	34	36	70
42	21	48	39	87	32	29	61
43	8	30	42	72	59	28	87
44	16	33	26	59	65	72	137
45	10	43	41	84	28	29	57
46	11	32	35	67	24	32	56
47	12	28	46	74	25	21	46
48	9	35	27	62	25	31	56
	137	351	357	708	375	383	758
1649	9	22	37	59	46	34	80
50	9	55	31	86	25	27	52
51	7	25	27	52	11	21	32
52	14	34	28	62	20	25	45
53	9	47	24	71	21	14	35
54	15	34	37	71	14	25	39
55	38	35	34	69	28	19	47
56	28	40	30	70	18	15	33
57	37	23	43	66	22	25	47
58	16	32	29	68	13	15	28
	182	354	320	674	218	220	438



Advertisements for the better understanding of the several Tables: videlicet,

Concerning the Table of Casualties consisting of thirty Columns.

THe first Column contains all the *Casualties* happening within the 22 single years mentioned in this Bill.

The 14 next Columns contain two of the last *septenaries* of years, which being the latest are first set down.

The 8 next Columns represent the 8 first years, wherein the *Casualties* were taken notice off.

Memorandum, That the 10 years between 1636 and 1647 are omitted as containing nothing Extraordinary, and as not consistent with the Incapacity of a Sheet.

The 5 next Columns are the 8 years from 1629 to 1636 brought into 2 Quaternions, and the 12 of the 14 last years brought into three more; that Comparison might be made between each 4 years taken together, as well as each single year apart,

The

The next Column contains 3 years together, taken at 10 years distance from each other; that the distant years, as well as consequent, might be compared with the whole 20, each of the 5 Quaternions, and each of the 22 single years.

The last Column contains the total of the 15 Quaternions, or 25 years.

The Number 229250 is the total of all the Burials in the said 20 years, as 34190 is of the Burials in the said 3 distant years. Where note that the $\frac{1}{5}$ of the latter total is 11396, and the $\frac{1}{10}$ of the former is 11462; differing but 66 from each other in so great a sum, *videlicet* scarce $\frac{1}{200}$ part.

The Table of Burials, and Christnings, consisting of 7 Columns.

IT is to be noted, that in all the several Columns of the *Burials* those dying of the *Plague* are left out, being reckoned all together in the sixth Column: whereas in the original Bills the *Plague*, and all other diseases are reckoned together, with mention how many of the respective totals are of the *Plague*.

Secondly, From the year 1642 forwards the account of the *Christnings* is not to be trusted, the neglects of the same beginning about that year: for in 1642 there are set down 10370, and about the same Number several years before, after which time the said *Christnings* decreased to between 5000 and 6000 by omission of the greater part.

Thirdly, The several Numbers are cast up into *Octonaries*

naries, that Comparison may be made of them as well as of single years.

The Table of Males, and Females, containing 5 Columns.

First, The Numbers are cast up for 12 years; *videlicet* from 1629, when the distinction between *Males* and *Females* first began, untill 1640 *inclusivè*, when the exactness in that Accompt ceased.

Secondly, From 1640 to 1660 the Numbers are cast up into another total, which seems as good for comparing the Number of *Males* with *Females*, the neglect being in both Sexes alike, and proportionable.

The Tables concerning the *Country-Parish*, the former of *Decads* beginning at 1569, and continuing untill 1658, and the latter being for single years, being for the same time, are so plain, that they require no further Explanation then the bare reading the Chapter relating to them, &c.

FINIS.

...the Comparison may be made at least as
well as of single years.

The Table of Males and Females con- taining Columns.

The Numbers are all set out in the same
order, and the different years are placed
under the same column, and the
the exact date in the Account stated.

According to the Table the Numbers are
set out in another total, which is not a good
comparison the Number of Males and Females
being set out in both Sexes alike and proportion-

The Table concerning the Census of the for-
mer of which beginning at 1792 and continuing un-
til 1800, and the latter being the first year being
for the same time, and to show that they require no
kind of Explanation then the date remaining for Com-
parative Tables, &c.

TABLE



★ ★ ARMY ★ ★
MEDICAL LIBRARY

Cleveland Branch

Med. Hist.
WZ
250
G7745 N
166202

NATIONAL LIBRARY OF MEDICINE



NLM 01001074 8