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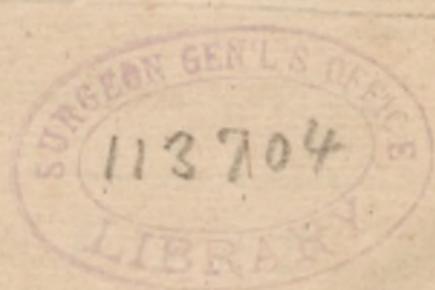
Bethesda, Maryland

Tracy, James

At a meeting of the Council of the
Royal Society

Ordered

That the Observations upon
the Bills of Mortality by Mr.
Gunter be Printed by John Sturges
Printer to the Royal Society



13

Tuesday, June 20. 1665.

*At a Meeting of the Council of the
Royal Society.*

Ordered,

THat the Observations upon the
Bills of Mortality by Mr. John
Graunt be Printed by John Martin and
James Allestry, Printers to the Royal
Society.

BRUNCKER Preb

2

Natural and Political

OBSERVATIONS

Mentioned in a following INDEX,

and made upon the

Bills of Mortality.

BY

Capt. JOHN GRAUNT,

Fellow of the Royal Society.

¹⁶⁶²
With reference to the Government, Religion, Trade, Growth, Air, Diseases, and the several Changes of the said CITY.

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

The Fourth Impression.

O X F O R D,

Printed by William Hall, for John Martyn,
and James Allestry, Printers to the
Royal Society, MDCLXV.

1665

GENERAL INSTRUCTIONS

to be observed in the use of the

Instrument

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TO THE
RIGHT HONOURABLE
JOHN Lord ROBERTS,

Baron of *Truro*, Lord *Privy Seal*, and
one of His Majesties most Honourable
Privy 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* *Pro-verb*)

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The Epistle Dedicatory.

verb) thereby but carry Coals to Newcastle, and but give your Lordship Puddle-water, who, by your own eminent Knowledge in those learned Languages, 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 Lordships learning, which the world knows to be universal and unacquainted with few useful things contained in any of them.

Now having (I know not what accident) engaged my thoughts upon the

Bills

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Bills of Mortality, and so far succeeded therein, as to have reduced several great confused *Volumes* into a few perspicuous *Tables*, and abridged 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 benign 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 Lordships place, as they are of little or none to me, which is no more than the fairest *Diamonds* are to the *Journeymen Jueller* that works them, or the poor *Labourer* that first dig'd them

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from the Earth. For with all humble submission to your Lordship I conceive, That it doth not ill becom 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 withal 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;

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ous; 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*, & very *City of London* removes *Westward*: That the walled City is but a fifth of the whole Pyle: That the old Streets are unfit for the present frequency of *Coaches*: That the passage of *Ludgate* is a throat too streight 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

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Heads is such, as hath certainly much deceived some of our *Senatours* in their appointments of *Poll-mony*, &c. Now, although your Lordship's most excellent Discourses have well informed me, That your Lordship is no stranger to 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 ungrateful 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 *healthful* and *fruitful Seasons*, the difference between the City and the Country *Aire*, &c. All which being new, to the best of my knowledge,

ledge,

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ledge, 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 of these Acccompts, and with how much affection and success, I am,

My Lord,

Birchen-lane,

25 January

1663.

Your Lordships most obedient,

and most faithful Servant,

JOHN GRAUNT.

To the Honourable

S^r ROBERT MORAY, Knight,
One of His Majesty's Privy Council for His Kingdome 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,

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Health, Diseases, Longevity, and the proportions between the Sex and Ages of Mankind. All which (because Sir 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 Majestie'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 kind.

His Majesty being not only by antient Right supreamly 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

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but really so as well as by his own personal Abilities, 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 Mathematicks of my Shop-Arithmetick. For You are not only His Majesty's Privy Council for Philosophy, but also His Great Council. You are the three Estates,

viz.

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viz. the Mathematical, Mechanical, and Physical. 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 inquire 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 Mareschals of France, or Chancellor of Sweden. I am as well pleased to hear you are satisfied in a luciferous

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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 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 useful Arts. For, I find in Trade the want of

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The Epistle Dedicatory.

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 only 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 lookt upon as a Free-holder's

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*Vote for the choosing of Knights and Bur-
gesses to sit in the Parliament of Nature,
meaning thereby that as the Parliament
owns a Free-holder, though he hath but
fourty 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 than I continue a faithful Friend
and Servant of your designs and Per-
sons.*

J. G.





A N

I N D E X

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. P. 2.
2. *Seven Alterations*, and *Augmentations* to the published *Bills*, between the years 1592, and 1652. p. 7. to 19
3. *Reasons why the Accompts of Burials and Christenings* should be kept universally, and now called for, and perused by the *Magistrate*, p. 21.
4. A true *Accompt* of the *Plague* cannot be kept without the *Accompt* of other *Diseases*, P. 22
5. The *Ignorance* of the *Searchers* no *impediment*

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- to the keeping of sufficient and usefull Accompts,
p. 23
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. 25
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 Grieffs,
p. 28, 29
8. A Table of the Proportions dying of the most notorious, and formidable Diseases, or Casualties,
p. 31.
9. That seven per Centum die of Age,
p. 32
10. That some Diseases, and Casualties keep a constant proportion, whereas some other are very irregular
p. 33.
11. That not above one in four thousand are Starved,
p. 34
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 than good,
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13. That not one in two thousand are Murthered in London, with the reasons thereof,
p. 39
14. That

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14. That not one in fifteen hundred dies Lunatick;
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15. That few of those who die of the French-Pox,
are set down, but coloured under the Consump-
tion,
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16. That the Rickets is a new Disease, both as to name,
and thing; that from fourteen dying thereof, An, 1634
it hath gradually increased to above five hundred,
An. 1660.
p.46,47
17. That there is another new Disease appearing; as
AS opping of the Stomach, which hath increased
in twenty years, from six, to near three hundred
p. 50
18. That the Rising of the Lights, (supposed in most
Cases to be the Fits of the Mother) have also en-
creased in thirty years, from forty four, to two
hundred forty nine,
p.51,52
19. That both the Stopping of the Stomach, and Ri-
sing of the Lights, are probably Reliques of, or depen-
ding upon the Rickets,
p.54
20. That the Stone decreases and is wearing away,
p.55.
21. The Gout stands at a stay,
p.56
22. The Scurvie encreases
p.56
23. The Deaths by reason of Agues, are to those
caused

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- caused by Feavers, as one to forty. ibid.
24. Abortives, and Stilborn, to those that are Christened, are as one to twenty, p.57
25. That since the differences in Religion, the Christenings have been neglected half in half, ibid.
26. That not one Woman in a hundred dies in Childbed, nor one of two hundred in her Labour, ibid.
27. Three Reasons why the Registering of Children hath been neglected, p.58
28. There was a confusion in the Accompts of Chrysome, Infants and Convulsions; but rectified in this Discourse, p.59
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.64
30. Annis 1603, and 1625, about a fifth part of the whole died, and eight times more than were born, p.65
31. That a fourth part more die of the Plague than are set down, p.66
32. The Plague Anno 1603 lasted eight years, that in 1639. twelve years, but that in 1625. continued but one single year. p.70
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33. That Alterations in the Air do incomparably more operate as to the Plague, than the Contagion of Converse, ibid.
34. That Purples, Small-Pox, and other malignant Diseases fore-run the Plague, p.71.
35. A disposition in the Air towards the Plague doth also dispose Women to Abortions, p.74
36. That as about one fifth part of the whole people died in the great Plague-years, so two other fifth parts fled, *ibid.* 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.75
38. The years, 1618, 20, 23, 24, 32, 33, 34, 1649, 52, 54, 56, 58, and 61, were sickly years, p.78
39. The more sickly the year is, the less fertile of Births, ibid.
40. That Plagues alwaies come in with King's Reigns is most false, p. 80
41. The Autumn, or the Fall, is the most unhealthful season, ibid.
42. That in London there have been twelve Burials for eleven Chrestnings, p.81
43. That in the Country there have been, contrary wise, sixty three Chrestnings for fifty two Burials, p.83
44. A

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44. *A supposition, that the people in and about London, are a fifteenth part of the people of all England and Wales,* ibid.
45. *That there are about six Millions and an half of people in England and Wales,* p.84
46. *That the people in the Country double by Procreation but in two hundred and eighty years, and in London in about seventy, as her easter 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 only as were born there, but in London multitudes of others.* p.85
47. *That about 6000 per Annum come up to London out of the Country,* p.86
48. *That in London about three die yearly out of eleven Families,* p.87
49. *There are about twenty five Millions of Acres of Land in England, and Wales,* p. 88
50. *Why the Proportion of Breeders in London to the rest of the people, is less than in the Country,* ibid,
51. *That in London are more impediments of Breeding, than in the Country,* p.89
52. *That there are fourteen Males for thirteen Females*

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- males in London, and in the Country but fifteen
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kind, without Castrations, p.95
54. Why Sheep, and Oxen out-brced Foxes, and o-
ther Vermin-Animals, p.96
55. There being fourteen Males to thirteen Females,
and Males being prolifique forty years, and Females
but twenty five, it follows that in effect there be 560
Males to 325 Females, p. 98
56. The said inequality is reduced by the latter mar-
riage of the Males and either imployment in Wars,
Sea-voyages and Colonies. p. 99.
57. Physicians have two Women Patients to one Man;
and yet more Men die than Women, ibid.
58. The great emission of Males into the Wars
out of London Anno 1642 was instantly sup-
plyed, ibid.
59. Castration is not used only to meliorate the
flesh of Eatable Animals, but to promote their in-
crease also, p. 102
60. The true ratio formalis of the evil of Adulteries
and Fornications, p.103
61. Where Poligamy is allowed, Wives, can be no
other than Servants, p.104
62. That

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62. *The 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* p. 116
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. 138
64. *The ten Out-Parishes have in fifty four years encreased from one to four,* p. 111
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. *Cripple-Gate-Parish hath most increased, &c.* ibid.
68. *The City removes Westwards, with the reasons thereof,* p. 112
69. *Why Ludgate is become too narrow a throat for the City,* p. 114
70. *That there be some Parishes in London two hundred times as big as others,* p. 115
71. *The natural bigness and Figure of a Church for the Reformed Religion,* p. 116
72. *The City of London and Suburbs, being equally divided, would make 100 Parishes, about the largeness*

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- largeness of Christ-Church, Black-Friers or Colemanstreet.* ibid.
73. *There are about 24000 Teeming Women in the ninety seven, sixteen, and ten Parishes in and about London,* p. 121
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. 124
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 ten 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 within six years, how many the next Decad, and so for every Decad till 76.* p. 125
80. *Tables, whereby may be collected how many there be in London of every Age Assign'd,* p. 126.
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.

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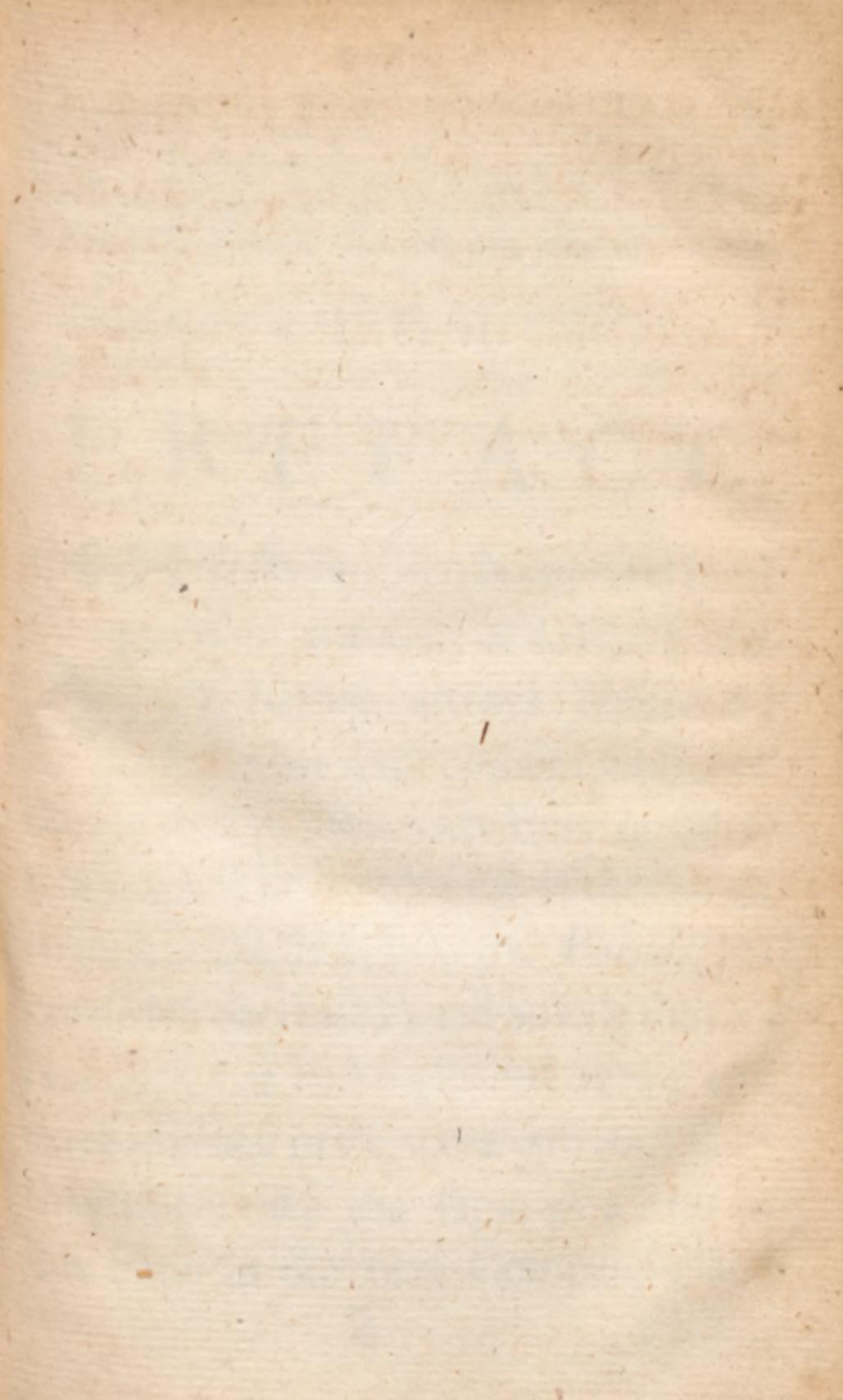
82. *That Westminster, Lambeth, Illington, Hackney, Redriff, Stepney, Newington, contain as many people as the 97 Parishes within the Walls, and are consequently $\frac{1}{3}$ of the whole Pile,* ibid.
83. *So that in and about London are about 81000 Fighting men, and 460000 in all,* p.127
84. *Adam and Eve in 5610 years might have by the ordinary proportion of Procreation, begotten more children then are now probably upon the face of the Earth,* p.128
85. *Wherefore the World cannot be older than the Scriptures represent it,* ibid.
86. *That every Wedding one with another produces four Children,* p. 129
87. *That in several places the proportion between the Males and Females differ,* ibid.
88. *That in ninety years there were just as many Males as Females Buried within a certain great Parish in the Country.* p.130
89. *That a Parish consisting of about 2700 Inhabitants, had in 90 years but 1059 more Christnings than Burials,* ibid.
90. *There come yearly to dwell at London about 6000 strangers out of the Countrey, which swells the Burials about 200 per Annum,* p.132
91. *Id*

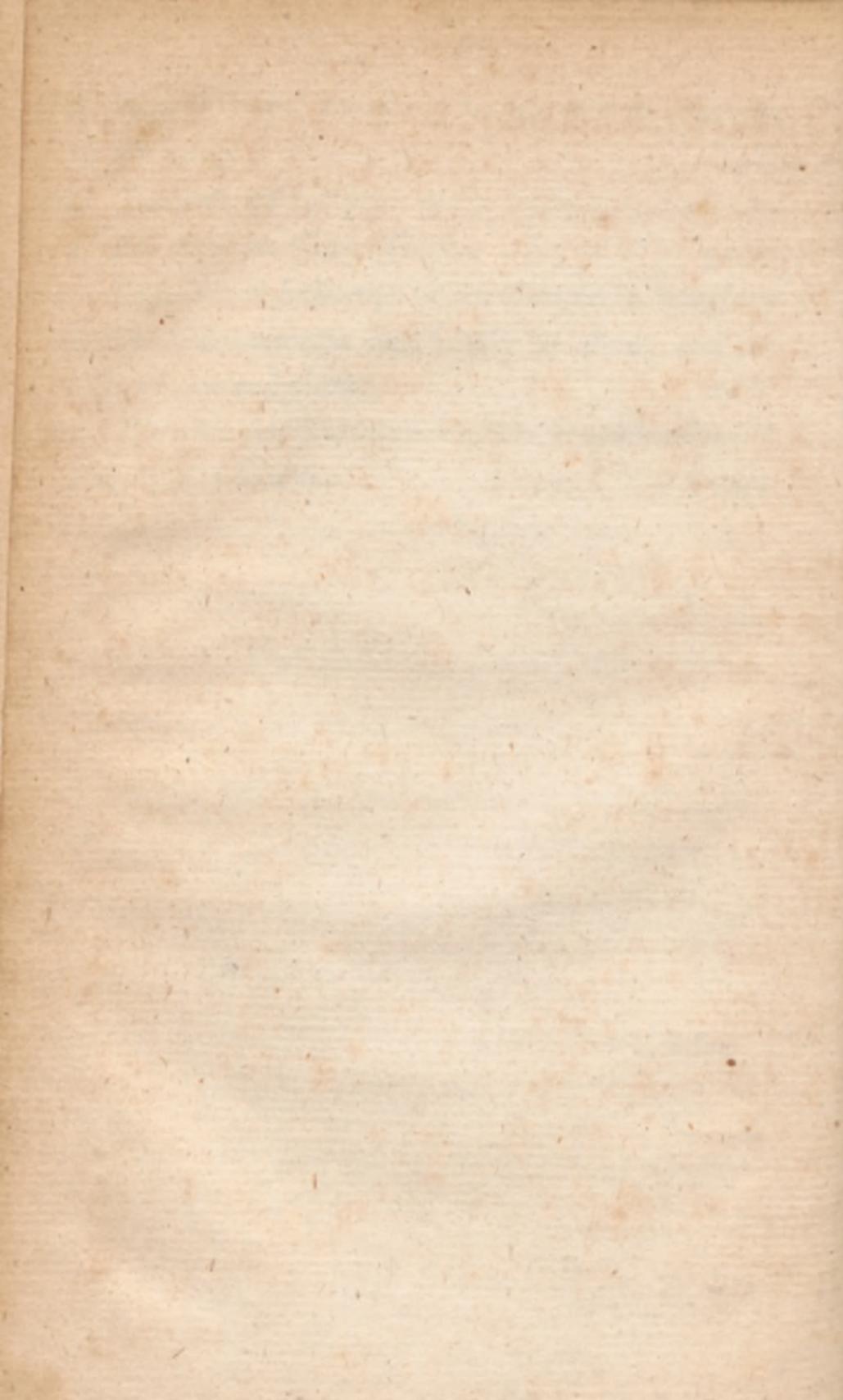
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91. *In the Country there have been five Christnings for four Burials,* ibid.
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95. *The difference also of Births are greater in the Country then at London.* p. 139
96. *In the Country but about one of fifty dies yearly, but at London one of thirty, over and above the Plague* p. 141
97. *London not so healthful now as heretofore,* p. 142
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. 145
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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 affaires,* p.150
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106. *Whether this Account ought to be confined to the Chief Governours.* p.152

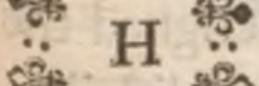
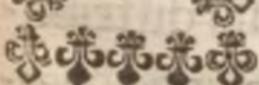






THE

P R E F A C E


 Having been born, and bred

 H in the City of *London*, and

 having always observed,
 that most of them, who con-
 stantly took in the weekly Bills of *Mor-*
tality, made little other use of them than
 to look at the foot, how the *Burials* in-
 creased or decreased; and among the *Ca-*
sualties, 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

B

withal,

withal, in the *Plague-time*, how the *Sickness* increased, or decreased, that so the *Rich* might judg 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

that kind, even as the Hall of the *Parish-Clarks* 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 only 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 *Opini-*

ons, to arise from my Meditations upon these neglected *Papers*, I proceeded further, to consider what benefit the knowledg of the same would bring to the World; that I might not engage my self in idle & 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 Premises, 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 *Scholes*; but will take it well, that I should offer at a new thing, and could
 forbear

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 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 whipped for every mistake I have committed.

C H A P. 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 *Decemb.* 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 dis-use, were resumed again in the year 1603, after the great *Plague* then happening likewise.

3. These *Bills* were Printed, and published,

published, not onely 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*,

Buried 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 Pest-house, being within the Liberties and without the Walls, _____	} 5924.
Whereof, of the Plague, _____	5.
The whole summ 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 ad- joyning to <i>London</i> , and out of the Freedom, _____	} 2900.
Whereof, of the Plague _____	5.
The Total of all the Burials in the places afore said is	12210.
Whereof of the Plague, _____	11.
Christened in all the afore said 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 *Corre-*
ction

Etion of the *Bills*; as the former year of
 Plagne 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 Li-
 berties thereof; as also in the nine out-
 Parishes adjoyning to the said City;
 with the Pest-house belonging to the
 same: from *Thursday* the 16th day of
December, 1624. to *Thursday* the 15th
 day of *December* 1625. according to
 the Report made to the King's most
 Excellent Majesty by the Company
 of *Parish-Clerks* of *London*.

L O N D O N.

St. Albanes in Woodstreet

Alhallows Barking

Bur. Plag.

188 78

397 263

Alhallows

LONDON,		Bur.	Pla
Alhallows Breadstreet	_____	34	14
Alhallows the Great	_____	442	302
Alhallows Hony Lane	_____	18	8
Alhallows the Iefs	_____	259	205
Alhallows in Lombard street	_____	86	44
Alhallows Stainings	_____	183	138
Alhallows the Wall	_____	301	155
St. Alphage Cripple gate	_____	240	190
St. Andrew Hubbard	_____	146	101
St. Andrews Undershaft	_____	219	149
St. Andrews by Wardrobe	_____	373	191
St. Anns at Aldersgate	_____	196	128
St. Anns Black-Friers	_____	336	215
St. Antholins Parish	_____	62	31
St. Austins Parish	_____	72	40
St. Bartholmew at the Exchange	_____	52	24
St. Bennets Fink	_____	108	57
St. Bennets Grace-Church	_____	48	14
St. Bennets at Pauls Wharf	_____	226	131
St. Bennets Shearhog	_____	24	8
St. Botolphs Bilings-gate	_____	95	66
Christs-Church Parish	_____	611	371
St. Christophers Parish	_____	48	28
St. Clements by Eastcheap	_____	87	72
St. Dionys Back-Church	_____	65	59
St. Dunstons in the East	_____	335	225
St. Edmunds Lumbarstreet	_____	78	49
St. Ethelborow in Bishops gate	_____	205	101
St. Faiths	_____	85	45
St. Fosters in Foster-lane	_____	145	102
St. Gabriel Fen-Church	_____	71	54
St. Georges Botolphs-lane	_____	30	19
St. Gregories by St. Pauls	_____	296	96
St. Hellens in Bishops gate street	_____	136	71
St. James by Garlick-hich	_____	180	109
St. John Baptist	_____	122	79
St. John Evangelist	_____	7	0
St. John Zacharies	_____	145	97
St. James Dukes place	_____	310	154
St. Katharine Colemanstreet	_____	26	175

LONDON.

	Ent.	Plag
St. Katharine Cree-Church.	186	373
St. Laurence in the Jewrie	91	55
St. Lawrence Pountney	206	127
St. Leonards Eastcheap	55	26
St. Leonards Fosterlane	292	209
St. Magnus Parish by the Bridge	137	85
St. Margarets Lothbury	114	64
St. Margarets Moses	37	25
St. Margarets new Fishstreet	123	82
St. Margarets Patrons	77	50
St. Mary Ab-Church	98	58
St. Mary Aldermanbury	126	79
St. Mary Aldermary	92	54
St. Mary le Bow	35	19
St. Mary Eothaw	22	14
St. Mary Coal-Church	26	11
St. Mary at the Hill	152	84
St. Mary Mounthaw	76	58
St. Mary Sommerfet	70	192
St. Mary Stainings	70	44
St. Mary Woolchurch	58	35
St. Mary Woolnoth	82	50
St. Martins Ironmonger-lane	25	18
St. Martins at Ludgate	254	164
St. Martins Orgars	88	47
St. Martins Outwich	60	30
St. Martins in the Vintry	339	208
St. Matthew Friday-street	24	11
St. Maudlins in Milk street	401	23
St. Maudlins Old-fish-street	225	142
St. Michael Bassishaw	199	139
St. Michael Corn Hill	159	79
St. Michael Crooked lane	144	91
St. Michael Queen-hich	215	157
St. Michael in the Quern	53	30
St. Michael in the Royal	111	61
St. Michael in Wood-street	189	68
St. Mildreds Bred-street	60	44
St. Mildreds Poultry	94	45
St. Nicholas Acons	33	13

L O N D O N		Buy.	Plag
St. Nicholas Coal-Abby	_____	87	67
St. Nicholas Olaves	_____	70	43
St. Olaves in Hart-street	_____	266	195
St. Olaves in the Jewry	_____	43	25
St. Olaves in Silver-street	_____	174	103
St. Pancras by Soper-lane	_____	17	8
St. Peters in Cheap	_____	68	44
St. Peters in Corn-hill	_____	318	78
St. Peters at Pauls Wharf	_____	97	68
St. Peters Poor in Broadstreet	_____	52	27
St. Stevens in Colman street	_____	506	350
St. Stevens in Walbrook	_____	25	13
St. Swithin at London-stone	_____	99	60
St. Thomas Apostles	_____	141	107
Trinity Parish	_____	148	87

Buried within the 97 Parishes within the Walls of all Diseases _____ 14340
 Whereof, of the Plague. _____ 9197

St. Andrews in Holborn	_____	2190	1636
St. Bartholmew the Great	_____	516	360
St. Bartholmew the Less	_____	111	65
St. Brides Parish	_____	1481	1031
St. Botolph Algate	_____	2573	1653
Bridewel Precinct	_____	213	152
St. Botolphs Bishops-gate	_____	2334	714
St. Botolphs Alders-gate	_____	578	307
St. Dunstons the West	_____	860	642
St. Georges Southwark	_____	1608	912
St. Giles Cripplegate	_____	3988	2338
St. Olaves in Southwark	_____	3689	1609
St. Saviours Southwark	_____	2746	1671
St. Sepulchers Parish	_____	3425	2420
St. Thomas in Southwark	_____	335	277
Trinity in the Minories	_____	131	87
At the Pest-house	_____	194	189

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
 Whereof of the Plague, _____ 17153
 Buried _____

Buried in the nine out-Parishes,

St. Clements Temple-bar	1284	755
St. Giles in the Fields	1333	947
St. James at Clarken-well	1191	903
St. Katharins by the Tower	998	744
St. Leonards in Shoreditch	1995	1407
St. Martins in the Fields	1470	973
St. Mary White chapel	3305	2272
St. Magdalens Bermondsey	1127	889
Savoy Parish	450	176
Buried in the nine out Parishes, in Middlesex & 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 — 35417.
Christnings this present year, is — 6983
Parishes clear this year, is — 1.
Parishes infested this year, is — 121.

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

In

In Westminster this Year	{	Buried ----	471
		Plague ----	13
		Christnings	361

6. In the Year 1629, an accompt of the *Diseases*, and *Casualties*, whereof any dyed, together with the distinction of *Males* and *Females*, making the fix 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 Stilborn	_____	_____	_____	415
Affrighted	_____	_____	_____	1
Aged	_____	_____	_____	628
Ague	_____	_____	_____	43
Apoplex, and Meagrom	_____	_____	_____	17
Bit with a mad dog	_____	_____	_____	1
Bleeding	_____	_____	_____	3
Bloody flux, scouring, and flux	_____	_____	_____	348
				Bruised

Bruised, Issues, sores, and ulcers,	28
Burnt, and Scalded	5
Burft, and Rupture	9
Cancer, and Woolf	10
Canker	1
Childbed	171
Chriſomes, and Infants	2268
Cold and Cough	55
Colick, Stone, and Strangury	56
Consumption	1977
Convulſion	241
Cut of the Stone	5
Dead in the ſtreet, and ſtarved	6
Dropſic, and ſwelling	267
Drowned	4
Executed, and preſt to death	38
Falling ſickneſs	17
Fever	1108
Fiſtula	13
Flox, and ſmall Pox	531
French Pox	12
Gangreen	5
Gout	4
Grief	11
Jaundies	43
Jaw fallen	78
Impoſtume	44
Kild by ſeveral accidents	6
King's Evil	38
Lethargic	2
Livergrown	87
Lunatique	5
Made away themſelves	15
Measles	80
Murthered	7
Over-laid, and ſtarved at nurſe	9
Palſie	25
Piles	1
Planue	8

Planet	_____	12
Pleuritic, and Spleen	_____	36
Purples and spotted Fever	_____	38
Quinsie	_____	7
Rising of the Lights	_____	98
Sciatica	_____	1
Scurvy, and Itch	_____	9
Suddenly	_____	62
Surfer	_____	86
Swine-Pox	_____	6
Teeth	_____	470
Thrush, and Sore mouth	_____	40
Tympany	_____	13
Tiffick	_____	34
Vomiting	_____	1
Wormes	_____	27

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

Increased in the Burials in the 122 Parishes and at the Pest house this year, _____ 993

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

7. In the year 1636, the Accompts of the Burials & Christnings, in the Parishes of Islington, Lambth, Stepney, Newington, Hackney, and Redriff, were added in the manner following, making a seventh Canton, viz.

In

<i>In St. Margarets Westminster.</i>	Christned	440
	Buried	890
	Plague	0
<i>Islington</i>	Christned	36
	Buried	113
	Plague	0
<i>Lambeth</i>	Christned	132
	Buried	220
	Plague	0
<i>Stepney</i>	Christned	892
	Buried	1486
	Plague	0
<i>Newington</i>	Christned	99
	Buried	181
	Plague	0
<i>Hackney</i>	Christned	30
	Buried	91
	Plague	0
<i>Bedriff</i>	Christned	16
	Buried	48
	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 ————— 1649

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. Pauls-Covent-Garden, St. Martin's in the Fields, St. Mary-Savoy,* & *St. Margarets-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

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 *Thursday* publi-

shed, and dispersed to the several Families, who will pay four Shilling *per Annum* for them. /

12. *Memorandum*, That although the general yearly *Bills* have been set out in the several varieties afore-mentioned, 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

the *Bills*; and next of the *Years & Seasons*.

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 increase 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 later, 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 only matter of curiosity.

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

5. For

5. For we shall make it probable, that in the Years of *Plague*, a quarter part more dies of that *Disease* than are set down; the same we shall also prove by other *Casualties*. Wherefore, if it be necessary to impart to the *world* a good *account* of some few *Casualties*, which since it cannot well be done without, giving an *Account* 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 of 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 Child were *Abortive* or *Stil-born*; 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* complaine 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

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 clearly, what the *Searchers* mean by *Infants*, as whether Children that cannot speak, as the word *Infant* seems to signify, or Children under two or three years old, although I should not be satisfied, whether the *Infant* died of *Wind*, or of *Teeth*, or of the *Convulsion*, &c. or were choaked with *Phlegm*, or else of *Teeth*, *Convulsion*, & *Scowring*, apart, or together, which they say do often cause one another; for I say, it is somewhat to know how

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*, *Apoplexy*, 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*

themselves, Lunatiques, Sores, Small-Pox,
 &c. their own senses are sufficient and
 the generality of the world are able pret-
 ty well to distinguish the *Gout, Stone,*
Dropsie, Falling-sickness, Palsie, Agues,
Pleurisie, Rickets, one from another.

ii. But now as for those *casualties* which
 are aptest to be confounded, & mistaken,
 I shall in the ensuing Discourse presume
 to touch upon them so far as the learn-
 ing of these Bills have enabled me.

12. Having premised these general Ad-
 vertisements, our first Observation upon
 the *Casualties* shall be, That in twenty
 years there dying of all Diseases & Ca-
 sualties, 229250, that 71124 died of the
Thrush, Convulsion, Rickets, Teeth, & Worms;
 and as *Abortives, Chrysome, Infants, Li-*
ver-grown, and Over-laid; that is to
 say,

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 $\frac{2}{3}$ might be Children under six Years old. Now, if we consider that sixteen thousand of the said 229250 died of that extraordinary and grand *Casualty*, the *Plague*, we shall find 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 $\frac{2}{3}$ parts. The which proportion doth give a measure

sure of the State, and disposition of this *Climate*, and *Air*, as to health; these *acute* and *Epidemical* Diseases hapning suddenly, and vehemently upon the like corruptions, and alterations in the *Air*.

15. The third Observation is, that of the said 229250 about seventy thousand 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 in *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 of the place: so that upon the proportion of *Chronical* Diseases seem to hang the judgment of the fitness of the Country
for

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 *Mettal-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* says 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, Kings. evil, Leprosie, Scald-head Swine-pox, Wens, &c. viz.* not one in 60.

17. In the next place, whereas many
per-

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

Table of Notorious Diseases.

Apoplex	1306	Leprosie	0006
Cut of the Stone	0038	Lunatique	0158
Falling Sickness	0074	Overlaid and Starved	0529
Dead in the Streets	0243	Palsy	0423
Gout	0134	Rupture	0201
Head ach	0051	Stone and Strangury	0863
Faundice	0998	Sciatica	0005
Leihargy	0067	Sodainly	0454

Table of Casualties.

Bleeding	069	Kil'd by several accidents	1021
Burnt, and Scalded	125	Murdered	0086
Drowned	829	Poysoned	014
Excessive drinking	002	Smothered	026
Frighted	022	Shot	007
Grief	279	Starved	051
Hanged themselves	222	Vomiting	136

18. In the foregoing Observations we ventured to make a Standard of the healthfulness of the *Air* from the proportion of *Acute & Epidemical* diseases, & of the *wholsomness* of the *food* from that of the *Chronical*. Yet for as much as neither of them alone do shew the *longevity* of the Inhabitants, we shal 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. Only 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 7 of the 100 live beyond

beyond 70, such Country is to be esteem'd more healthful than this of our City.

19. Before we speak of particular *casualties*, we shall observe, that among the several *casualties* some bear a constant proportion to the whole number of *Burials*; such are *Chronical Diseases*, and the *Diseases* whereunto the City is most subject; as for example, *Consumptions*, *Dropsies*, *Faundice*, *Gowt*, *Stone*, *Palsie*, *Scurvy*, *rising of the Lights*, or *Mother*, *Rickets*, *Aged*, *Agues*, *Fevers*, *Bloody-flux*, and *Scowring*: nay, some *Accidents*, as *Grief*, *Drowning*, *Men's making away themselves*, and being *Kill'd by several Accidents*, &c. do the like; whereas *Epidemical*, and *Malignant* diseases, as the *Plague*, *Purples*, *Spotted-Fever*, *Small-Pox*, and *Measles*, do not keep that equality: so as in some years or months,

D

there

there died ten times as many as in others.

CHAP. III.

Of Particular Casualties.

MY 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 Country, or of means to get it.

2. The Observation which I shall add hereto, is, That the vast number 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

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 generall 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: only indeed the Magistrate is both the *Beggar*, and the *disposer* of what is got [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 kind of pain, and passion by consent; of which we ease our selves, when we think we ease them, with whom we sympathized; or else we bespeak a-
forehand

forehand 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, *I were 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 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 imploy the *Beggars* about it, will but transfer the want from one hand to another; nor can a Learner work so cheap as a skilful practised *Artist* can. As for example, a practised *Spinner* shall spin a pound of *Wool* worth two
 D 3 Shillings,

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 greatest part of it, and is thought to have more skill and experience to manage it ; wherefore, to bring *England* into *Hollands* 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 only spoil the Clothiers Wool, and beggar the present Spinners at best ; but at worst, put the whole Trade of the Coun-

Country to a stand, until 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 *Tragedy*.

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 *Murther*. Besides

the great and frequent Revolutions and Changes in 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*; than every common unconcerned person doth to find out the *Murtherers*, and that for ever, until it be done.

11. The *Lunaticks* are also but few, viz. 158 in 229250. though I fear many more than are set down in our *Bills*, few being entred for such, but those who die at *Bedlam*; and there all seem

to die of their *Lunacy*, who died *Lunaticks*; for there is much difference in computing the number of *Lunaticks*, that die (though of *Fevers* & all other Diseases, unto which *Lunacy* is no *Supersedeas*) and those that die 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 find in our Bills concerning it: only 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 find 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 sort of *Madmen*,

men, that think to ease themselves of pain by leaping into *Hell*; or else are are more Mad, so as to think there is no such place; or that men may go to rest by death, though they dye 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 the Science and Certainty we aim at.

15. We find one *Casualty* in our Bills, of which, though there be daily talk, there is little effect, much like our abhorrence

horrence of *Toads & Snakes* as most poisonous Creatures, whereas few men dare say upon their own knowleg they ever found harm by either; and this *Casualiy* is the *French-Pox*, gotten for the most part, not so much by the intemperate use of *Venery* which rather causeth the *Gout*) as of many common Women.

16. I say the Bills of *Mortality* would take off these Bars, which keep some men within the bounds, as to these extravagancies: for in the aforementioned 229250, we find not above 392 to have died of the *Pox*. Now, forasmuch as it not good to let the World be lulled into a security and belief of Impunity by our Bills, which we intend shall not be only as *Death's-heads* to put men in mind of their *Mortality*, but also

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 *Thads* and *Snakes* afore-mentioned, but of a quite contrary 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 *Sauthwark*) were returned of *Ulcers* and *Sores*. And in brief, I found, that

that all mentioned to die of the *French-Pox* were returned by the *Clerks* of *St. Giles's* and *St. Martin's in the Fields* only, in which place I understood that most of the vilest and most miserable houses of uncleanness were: from whence I concluded that only *hated* persons, and such, whose very *Noses* were eaten off, were reported by the *Searchers* to have died of this too frequent *Malady*.

18. In the next place, it shall be examined under what name, or *Casualty*, such as die of these Diseases are brought in: I say, under the *Consumption*; for as much as all dying thereof die so emaciated and lean (their *Ulcers* dis-appearing upon Death) that the *Old-women Searchers*, after the mist of a Cup of *Ale*, and the bribe of a two-groat

groat fee, instead of one, given them, cannot tell whether this emaciation or leanness were from a *Phthisis*, or from an *Hæctick 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 find no mention among the *Casualties*, until 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

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 only by pretenders to know it, but also from other Bills, that *Liver-grown* was the nearest. For in some years I find *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 itself, I compared with the *Liver-grown* of the precedent year 1633, viz.

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*: only this is not to be denied, that when the *Rickets* grew very numerous (as in the year 1660, *viz.* 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-grown*. Now, though it be granted that these Diseases were confounded
in

in the Judgement of the *Nurses*, yet it is most certain, that the *Liver-grown* did never but once, viz. *Anno 1630*, exceed 100; whereas *Anno 1660*, *Livergrown* and *Rickets*, were 536.

24. It is also to be observed, that the *Rickets* were never more numerous than now, and that they are still increasing, 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 be-

tween 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 Colledge* one may sensibly discern.

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

27. Here-

27. Hereupon I apprehended, that this *Stopping* might be the *Green-sickness*, forasmuch as I find few or none to have been returned upon that Account, 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* than *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 Stomack*, 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 increased.

29. But I was somewhat taken off from thinking this *stopping of the Stomack* to be the *Mother*, because I ghuesed 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 *Choking*, than that the *Mother* should rise up thither, and do it. For me-thinks, when a woman is with child, there is a greater rising, and yet no such *Fits* at all.

30. But

30. But what *I* have said of the *Rickets* and *stopping of the Stomack*, *I* do in some measure say of the *Rising of the Lights* also, *viz.* that these *Risings*, (be they what they will) have *increased* 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 Stomack*, by squeezing and crowding upon that part. And forasmuch as these *Chokings* 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 increased together, and in some kind 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 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

though but one drop should be pump'd 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 later, 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 *Films* of the *Bladder*, and so kept from grating or offending it.

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

36. The *Scurvy* hath likewise increased, 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

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 then now : or, else that in these later 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 *Accounts* of the *Christenings* is most certain, because until the year 1642, we find the *Burials* but equal with the *Christenings*, or near thereabouts, but in 1648, when the differences in *Religion* had changed the Government, the *Christenings* were but two thirds of the *Burials*. And in the year 1659, not half,

viz.

viz. the *Burials* were 14720, of the *Plague* but 36) and the *Christenings* were but 5670; which great disproportion could be from no other Cause than that above-mentioned, forasmuch as the same grew as the *Confusions* and *Changes* grew.

41. Moreover, although the *Bills* give us in *Anno* 1659 but 5670 *Christenings*, 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 *Christenings* were 8288. Wherefore by the proportion of *Abortives* *Anno* 1659, the *Christenings*, should have been about 8500: but if we shall reckon by the *Women* dying in *Childbed*, of whom a better *Accompt* is kept than of *Stil-Borns*

Borns and *Abortives*, we shall find *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 *Christenings* will come near the same proportion to the *Burials*, as hath been observed in former times.

42. In regular Times, when Accounts were well kept, we find 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-

forasmuch as there be other Causes of a **Womans** dying within a Month, than the hardness of her Labour.

43. If this be true in these Countries, where women hinder the facility of their *Child-bearing* by affected straitening of their Bodies ; then certainly in *America*, where the same is not practised, Nature is little more to be taxed as to womed, than 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 *Christenings* hath been neglected more then that of *Burials* : one, and the chief whereof, was a Religious Opinion against *Baptizing of Infants*, either

ther as unlawful, or unnecessary. If this were the only reason we might by our defects of this kind conclude the growth of this opinion, and pronounce, that not half the People of *London*, 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 *Scruplers*, to carry their Children unto 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 *Registred*, although thereby the time of their coming of Age might be known, in respect of such Inheritances as might belong unto them ; and withal by such *Registring* it would have appeared unto what *Parish* each Child had belonged, in case any of them should happen to want relief.

48. Of *Convulsions* there appeared very few, viz. but 52 in the year 1629, which in 1636 grew to 709, keeping about that
stay

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 *Chryfoms* and *Infants* was greater: for in 1629, there was of *Chryfoms* 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 only a confusion in the *Accompts*.

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

CHAP. IV.

Of the Plague.

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

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

There died Anno 1592, from <i>March</i>	
to <i>December</i> ,	25886
Whereof of the <i>Plague</i>	11503
Anno 1593	17844
Whereof of the <i>Plague</i>	10662
<i>Christened</i> in the said year	4022
Anno 1603, within the same space of	
time, were Buried	37294
Whereof of the <i>Plague</i>	30561
An. 1625, within the same space---	51258
Whereof of the <i>Plague</i>	35417
An. 1636, from <i>April</i> to <i>Decemb.</i>	23359
Whereof of the <i>Plague</i>	10400

2. Now it is manifest of it self, 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 find 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 find 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 than the last of 7 to 20: For if the Year 1625 had been as great a *Plague*-year as 1603, there must have died not only 7 to 10, but 8 to 10, which in those great numbers makes a vast difference.

5. We must therefore conclude the
Year

Year 1603 to have been the greatest *Plague-year* of this Age.

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

Anno 1592	{	Buried ————— 26490	}	or	{	6
		Christned ————— 4277				

Anno 1603	{	There died in the whole	}	or	{	8		
		Year of all ————— 38244					as	2
		Christned ————— 4784						

1 to 8, or 1 $\frac{3}{4}$ to 10.	{	Anno 1625	{	Died in the whole	}	or	{	8			
				Year					54265	as	2
				Christned					6983		

Anno 1636	{	There died, <i>ut supra</i> , ----- 23359	}	or	{	3
		Christned ————— 9522				

7. From whence it appears, that Anno 1636 the Christenings were about $\frac{2}{3}$ parts of the Burials : Anno 1592 but $\frac{1}{6}$; but in the Year 1603, and 1623,

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* than *Anno* 1625. Now to reconcile these two Positions, we must alledge, that *Anno* 1625 there was Error in the Accompts or Distinctions of the *Casualties*; that is, more died of the *Plague* than 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

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 rendring 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.

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 se-

veral 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 then 600: whereas in the Year 1624 next preceeding, and in the Year 1626 next following the said great *Plague*-year 1625, there died in the former but 11, and in the later 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, and

and never under 800. The which shews, that the Contagion of the *Plague* depends more upon the *Disposition* of the *Air*, than 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 *Aire*, than of the Constitution of Mens Bodies, otherwise than as this depends upon that.

13. It may be also noted, That many times other *Pestilential* Diseases, as *Purple-Fevers*, *Small-pox*, &c. do fore-run 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 a-
bove 54000.

CHAP. V.

*Other Observations upon the Plague, and
Casualties,*

1. **T**HE Decrease and Increase of Peo-
ple, is to be reckoned chiefly by
Christnings, because few bear Children
in *London* but *Inhabitants*, though others
die there. The *Accompts* of *Christen-
ings* were well kept until differences in
Religion occasioned some neglect there-
in, although even these neglects we must
confess to have been regular and pro-
portionable.

2. By

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

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* increased, 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 20 *per Week* of the *Plague*; which small number could neither cause the death or flight of

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 *Octob.* the *Plague* increasing reduced the *Christenings* to 70 at a *Medium*, diminishing the above proportion down to $\frac{1}{2}$. Now the cause of this must be flying and death, as well as *Miscarriages* and *Abortions*; for there died within that time about 25000, wherof 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 dyed not above five a week of the *Plague*, one with another. In this time the *Christenings* were one with another 180.

The

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-asmuch as it cannot be a supply by Procreations; *Ergo*, it must be by new *Affluxes* to *London* out of the *Country*.

7. We

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* of the several years and Seasons one with another. And first, having in the Chapters afore-going 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 two hundred dying of the *Plague*, for such we call *Plague-Years*; and this we do, that the World may see, by what

what

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 increase and access of People to the City only.

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 fruitful of Children also they be. Which will appear, if the number of Children born in the said sickly years be less than that of the years both next preceding and next following: all which,

upon view of the Tables, will be found

true

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 than either of the two next precedent years by 2000, and fewer than in the subsequent by above 4000. And withal, the number of *Christenings* in the said year 1660 was far greater than in any of the three years next aforegoing.

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 Restauration* to His Empire over these three Nations, as if God Almighty had caused the
health-

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 happened 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* than *Christenings*. This is plain, depending only 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, or Parishes) although differently numbred and divided, 363935 *Burials*, and but 330747 *Christenings* within the 97, 16,

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and

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 increase of Buildings upon new Foundations, and by the turning of great Palacious Houses into small Tenements. It is therefore certain, that *London* is supplied with people from out of the Country, whereby not only to supply the overplus or difference of *Burials* above-mentioned, but likewise to increase its *Inhabitants*, according to the said increase of housing.

3. This supplying of *London* seems to be the reason, why *Winchester*, *Lin*

coln, 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 than now, and bore another proportion to *London* than 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 inquiry found true, *viz.* That in the Countrey, within ninety years, there have been 6339 *Christenings*, and but 5280 *Burials*, the increase

crease of *London* will be salved without inferring the decrease of the People in the Country ; and withal, in case all *England*, have but fourteen times more People than *London*, it will appear, how the said increase of the Country, may increase the People, both of *London* and it self ; for if there be in the 97, 16, 10, and 7 Parishes, usually comprehended within our Bills, but 460000 Souls, as hereafter we shall shew, then there are in all *England* and *Wales* 6440000 Persons, out of which subtract 460000, for those in and about *London*, there remains 5980000 in the Countrey, the which increasing about $\frac{1}{4}$ part in 40 years, as we shall hereafter prove doth happen in the Country, the whole increase of the Country will be about 854000 in the

the said time ; out of which number, if but above 250000 be sent up to *London* in 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 1623 and 1664 : But that 250000 will do the same, I prove thus ; viz. in the 8 years, from 1623 to 1631, the *Burials* in all the *Parishes*, and of all *Diseases*, the *Plague* excluded, were at a *Medium* 9750 *per Annum*. And between 1659 and 1664 were 18000, the difference whereof is 8250, which is the *Total* of the increase of the *Burials* in 40 years, that is, about 206 *per Annum*. Now, to make the *Burials* increase 260 *per Annum*, there must be added to the *City* 30 times as many (ac-

According to the proportion of 3 dying out of 11 Families) viz. 6120 *Advenæ*, the which number multiplied again by the 40 years, makes the *Product* 247200, which is less than the 250000 above propounded; so as there remains above 600000 of increase 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 *Hants*, being

ing 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, than in other wild Counties. So as the $\frac{3}{4}$ parts of the said 220, multiplied by the Total of square Miles, produces 6400000 Souls in all *England*, *London* included.

3. There are about 10000 Parishes in *England* and *Wales*, the which, although they should not containe 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 containe 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 ; 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 only as a means to examine my Assertion, but as an hint to their inquiry 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*, *Lincolne*, and other like places, must be attributed to other Reasons, than that of re-furnishing *London* only.

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 than 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 sixty of them Breeders in *London*, there are more then sixty in the Country, or else we must say, that *London* is more unhealthful, or that it inclines Men and Women more to Barrenness, than the Country: which by comparing the Burials and Christenings of *Hackney*, *Newington*, and the other Country-Parishes, with the most *Smokie*, and *Stinking* parts of
 the

the City, is scarce discernable in any considerable degree.

6. Now that the Breeders in *London* are proportionably fewer than 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

4. That many Apprentices in *London*, who are 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 die in the absence of their Husbands, than 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 newcomers and Children do not: for the *Smoaks*, *Stinks*, and close *Air*, are less healthful than that of the Country; otherwise why do sickly persons remove into the *Country-Air*? And why are there more old men in Countries than

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* than 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

8. Add to this, that the minds of men in *London* are more thoughtful, and full of business, than in the Country where their work is *corporal* Labour and Exercise. All which promote Breeding whereas the *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* than *Females*.

1. There have been buried from the year 1628, to the year 1662, *exclusive*, 209436 *Males*, and but 190474 *Females*: but it will be objected, That in *London* it
may

may be indeed 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 130856 *Females*, and that the *Country-Accounts* are consonant enough to those of *London* upon this matter.

3. What the causes hereof are, we shall not trouble our selves to conjecture, as in other cases: only we shall desire *Travellers* would inquire, whether it be the same in other *Countries*.

4. We should have given an *Account*, how in every *Age* these proportions change here, but that we have *Bills of distinction* but for 32 years, so that
we

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*, than *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* than *Females*, yet *Artificially*, that is, by making *Geldings*, *Oxen*, and *Weathers*, there are fewer. From whence
it

it will follow, that when by experience it is found how many *Ews* (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 than *Sheep*, when as
 so

so many thousands of these are daily Butchered, and very few of the other die otherwise than of themselves.

4. We have hitherto said, There are more *Males* than *Females*; we say next, That the one exceed the other by about the thirteenth part. So that although more men die violent deaths than 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 *Forrein parts*, than Women: and lastly, more remain unmarried than of Women, as *Fellows of Colledges*, and *Apprentices* above eighteen, &c. yet the said thirteenth part difference bringeth the business but to such a pass, that every Woman may have an Husband, with-

out the allowance of *Polygamy*.

5. Moreover, although a man be *Prolifick* forty 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,

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

8. In the year 1642 many *Males* went out of *London* into the wars then beginning, insomuch, as I expected in the succeeding year 1643 to have found the *Burials* of *Females* to have exceeded those of *Males*, but no alteration

tion appeared; forasmuch, as I suppose, Trading continuing the same in *London*, all those, who lost their *Apprentices*, had others out of the Country; and if any left their Trades and Shops, that others forthwith succeeded them: for, if imployment 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 *Christenings* 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

there be encouragement for an hundred in *London*, that is, a Way how an hundred may live better than in the Country, 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 Country; so as the great *Plague* doth not lessen the Inhabitants of the City, but of the Country, who in a short time remove themselves from thence hither, so long, until 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 later being useless 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 practice 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 *Popish* Countries, where *Polygamy* is forbidden, if a greater number of *Males* oblige themselves to *Cælibate*, than 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 than one;) which commonly procreates no more than 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 increase.

13. From what hath been said appears the reason, why the Law is and ought to be so strict against Fornications & 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 only 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 hindring Licentiousness, advance their own Interest, as well as preserve the Laws of God from contempt and violation.

15. It is a Blessing to Mankind, 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 and equality of expense with their Husbands, as now, and here they do.

16. The reason whereof is, not, that the Husband cannot maintain as splendid-

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 than makes for his own pleasure ; the poorest Subjects (such as this plurality of Wives must be) being most easily governed.

CHAP.

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 dyed 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

which last of the three numbers, 15625, is much more then double to the first 6986; viz. the said Parishes have in forty years increased 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 increased faster than 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 increased but from nine to ten, or thereabouts, because the Housing of the said ninety seven Parishes could be no otherwise increased, than by turning great Houses
 into

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 *Plagne*; so as in fifty six years the said Parishes have doubled. Where note, That forasmuch as in 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 increased from twenty to thirty four, or from ten to seventeen in fifty four years; than from one to two in fifty six, as in the last

last aforegoing *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 increased from three to seven.

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 increased, within the said fifty four years more than 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 three great Divisions

Divisions of the whole pyle, called *London* to have increased; 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 increase is not discernable, but where great Houses, formerly belonging to Noblemen, before they built others near *White-Hall*, have been turned into Tenements; upon which account *Alhallows upon the Wall* is increased upon the conversion of the *Marquess of Winchester's House*, lately the *Spanish Embassadour'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 *Lothbury*; the like of the *Bishop of London's* the *Dean of St. Paul's*, and the *Lord River's*

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 Giles Cripple-gate* hath been most enlarged , next to that *St. Olaves Southwark* , then *St. 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 Giles's* and *Saint Martin's in the Fields* are most increased, notwithstanding *Saint Pauls Covent-Garden* was taken out of them both.

11. The generall Observation, which arises from hence, is, That the City of *London* gradually removes *Westward* , and did not the *Royal Exchange* and *London*

London-Bridge stay the Trade, it would remove much faster: *Leaden-Hall-street*, *Bishop's-Gate*, and part of *Fan-Church-street*, have lost their Antient Trade; *Grace-Church-street*, indeed keeping it self yet entire, by reason of its conjunction with and relation to *London-Bridge*.

12. Again, *Canning-street* and *Watlin-street* have lost their Trade of *Woollen-Draperie* 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 alwaies at *Westminster*. Secondly, the use of *Coaches*, whereunto the narrow
Streets

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*
I was

was the only *Western Gate* of the City, little Building was *Westward* thereof: but, when *Holborn* began to increase, *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 intollerable stops and embaresses of Coaches near both these Gates, especially *Lud-gate*.

CHAP. X.

Of the Inequality of Parishes.

- I. **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

their respective *Burials*; for in the same year were buried in *Cripple-gate* Parish 1191, that but twelve died in *Trinity-Minories*, *Saint Saviour's Southwark*, and *Botolph's Bishops-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 *Saint John the Evangelist's*, *St. Mary Coal-Church*, *St. Bennet's-Grace-Church*, *St. Matthew-Fryday-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 at all, it being as much Science to save one single Soul, as one thousand.

3. We incline 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, than 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

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*, *Alhallows-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 pouds *per Annum*) might obtain a subsistence.

6. And lastly, *The Church-Wardens* and *Overseers* 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 heedful 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 talke seldome under Millions of *People* to be in *London*; all which I was apt enough
to

to believe, until on a certain day, one of eminent Reputation was upon occasion asserting, That there was in the year 1661 two Millions of People more than *Anno* 1625 before the great *Plague*. I must confess, that until this *provocation*, I had been frightened 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 Inquiries, 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 aforementioned 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 *Stil-born*, or died of *Teeth*, *Convulsion*, *Rickets*, or as *Infants*, and *Chryfoms*, and *Aged* ; I concluded, that Men and Women, between ten and sixty, there scarce died 10000 *per Annum* in London, which number being multiplied by 10, there must be but 10000 in all, that is not the $\frac{1}{60}$ part of what the *Alderman* imagined.

These

These were but sudden thoughts on both sides, and both far from truth, I thereupon endeavoured to get a little nearer, thus : viz.

5. 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 *Child* 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

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 find by telling the number of Families in some Parishes within the walls, that 3 out of 11 Families *per annum* have died: wherefore, 13000 having died in the whole, it should follow there were 48000 Families according to the last mentioned Account.

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

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 ghesled 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 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 be 220 within the walls, making in all 11880 Families within the Walls. But forasmuch as there die within the walls about 32000 *per Annum*, and in the whole 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

agrees well enough with all my former computations: the worst whereof doth sufficiently demonstrate, that there are not 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 elsewhere 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 ha-
ving

ving seven *Decads* between six and 76, we sought six mean proportional numbers between 64, the remainder, living at six years, and the one, which survives 76, and find, that the numbers following are practically near enough to the truth; for men do not die in exact proportion, nor in Fractions, from whence arises this Table following.

<i>Viz.</i> Of an hundred there dies within the first six years	36	The third <i>Decad</i>	9
The next ten years, or <i>Decad</i>	24	The fourth	6
The 2 ^d <i>Decad</i>	15	The next	4
		The next	3
		The next	2
		The next	1

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

At 16 years end	40		At fifty six	6
At twenty six	25		At sixty	3
At thirty six	16		At seventy six	1
At fourty 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

the truth whereof I leave to examination, only the $\frac{1}{2}$ of 67594, viz. 13539, is to be added for *Westminster, Stepney, Lambeth,* and the other distant Parishes; making in all 81233 fighting Men.

12. The next inquiry will be, In how long time the City of *London* shall by the ordinary proportion of Breeding and dying, double its breeding People? I answer, In about seven years, and (*Plagues* considered eight. Wherefore, since there be 24000 pair of Breeders, that is $\frac{1}{2}$ 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 Account 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 Accounts of *Burials* and *Christenings* in and about *London*; we shall next present the Accounts of both *Burials*, *Christenings*, and also of *Weddings* in

in the Country, having to that purpose inserted Tables of 90 years for a certain parish in *Hants*, 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 Marriageable Man or Woman may be presumed shall have. For, though a man may be Married more than 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* than the
 K Country.

Countrie. And it is possible, that in some other places there are more *Females* born than *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 $\frac{1}{100}$ part; 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

5. That in the said 50 years there have been born more than buried in the said Parish (the which, both 50 years ago, and also now, consisted of about 3700 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*, *Christenings*, or by the built of new-housing, that the said Parish is more populous now, than 50 years ago, by above two or 300 Souls. Now, if all other places send about $\frac{1}{3}$ of their increase, 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 which we have given some

Reasons) then *London* increases by such *Advenæ* every year above 6000: the which will make the *Account of Burials* to swell about 200 *per Annum*, and will answer the increases we observe. It is clear, that the said *Parish* is increased 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 forty years.

7. According to the *Medium* of the said whole 90 years, there have been five *Christenings* 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

8. Our former Observation, That healthful years are also the most fruitful, is much confirmed by our Country Accounts; for, 70 being our Standard for *Births*, and 58 for *Burials*, you shall find, that where fewer than 58 died, more than 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 103 were born, there died but 29. Now in none of the whole 50 years, more were born than 103, and but in one fewer than 29 died, *viz.* 28 Anno 1658. Again, Anno 1568, when 93 were born, but 42 died. Anno 1584, when 50 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 26 were born, then 52 died.

On the other side, *Anno* 1638, when 156 died *per Annum*, which was the greatest year of Mortality, then lesse than 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

as to evert our Rule, which, besides the Authority of these Accounts, is probable in it self.

9. Of all the said 90 years, the year 1638 was the most *Mortal*; I therefore inquired, whether the *Plague* was then in that Parish, and having 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 parishioners, that seven might be sick for one that died: whereas of the *Plague* more die than recover. Lastly, these people lay longer sick than is usual in the *Plague*, nor was

there any mention of *Sores, Swellings, Blue-Tokens, &c.* among them. It follows, that the proportion between the *greatest* and the *least Mortalities* in the Country are far greater than 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 *Accounts* within no *Decad* of years hath been double, whereas in the Country it hath been *quintuple*, not onely within the whole ninety years, but also within the same *Decad*: for *Anno* 1633 there died 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

the Country they are seldom not more than so ; as by this Table appears.

greatest least
Decad number of Burials

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 jstled Backwards

Backwards the Influences falling from above, or resisted the Incurſion of the Country-Airs.

10. In the laſt *Paragraph* we ſaid, that the Burials in the Country were ſome-time *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.*

<i>Decad</i>	greatest	least
	<i>number of Births,</i>	
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	80	52

Now

Now although the disproportions of Births be not so great as that of *Burials*, yet these disproportions are far greater than at *London*: for let it be shewn in any of the *London Bills*, that within two years the *Christenings* have decreased; or increased double, as they did *An. 1584*, when 90 were born, and 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.

11. By the Standard of Burials in this Parish I thought to have computed the number of Inhabitants in it,
viz.

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 of the Inhabitants, as I had for *London*: but when upon inquiry, 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 asmuch as there were neer as many under 16 years old, as there are above, *viz.* Communicants, I concluded, that there must be about 2700
 or

or 2800 Souls in that Parish : from whence it follows, that little more than 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* than the City ; that is to say, although men die more regularly, & less *per saltum* in *London*, than in the Country, yet upon the whole matter, there die fewer *per rata* ; so as the Fumes, Steams, & 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,

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* is more *unhealthful* than heretofore; partly for that it is more *populous*, but chiefly because I have heard, that sixty years agoe few *Sea-coals* were burnt in *London*, which are now universally used. For I have heard, that *Newcastle* is more *unhealthful* than other places, and that many People cannot endure the smoack of *London*, not only for its unpleasantness, but for the suffocations which it causes.

14. Suppose, that *Anno* 1569 there were 2400 Souls in that Parish, and that

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 *healthful* than 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 increased 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 bustling and groping? To know,

1. The number of the People ?

2. How

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 *Howsing* is replenished after the *Plague* ?
9. What proportion^d die of each general and particular *Casualties* ?
10. What *Years* are *Fruitful* and *Mortal*, and in what *Spaces* and *Intervals* they follow each other ?
11. In what proportion Men neglect the *Orders* of the *Church*, and *Seats* have increased ?

12. The disproportion of Pari-
shes ?

13. Why the *Burials* in *London* ex-
ceed the *Christenings*, when the
contrary is visible in the Coun-
try ?

To this I might answer in general,
by saying, that those, who cannot ap-
prehend the Reason of these Inquiries,
are unfit to trouble themselves to aske
them.

2. I might Answer by asking, Why
so many have spent their times and E-
states 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
L enjoy

enjoy it, but must be either a Prisoner to some Prince, or Slave to some Voluptuaty, or else skulk obscurely up and down for his privacy 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 sixty years. And there is pleasure in doing something new, though never so little, without pester-ing the World with Voluminous Transcriptions.

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

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

Now, the Foundation or Elements of this honest harmlesse *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 Situation of all the Lands of a Kingdome, especially according to its most natural, permanent, and conspicuous Bounds. 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 Intrinsic value: for there is also another value meerly accidental, or Extrinsic, 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 intrinsic 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 lesse necessary to know how many

many People there be of each Sex; State, Age, Religion, Trade, Rank, or Degree, &c. by the knowledge whereof, Trade and Government may be made more certaine and Regular; for, if men knew the 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 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 employ-

ing others, nor working themselves.

Moreover, if all these things were clearly and truly known (which I have but ghesed 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 Philosophy; 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 Ministries of Vice and Sin; how ma-
ny

ny by Trades of meer Pleasure, or Ornaments ; and how many in a way of lazy attendants, &c. upon others : And on the other side, how few are employ- ed in raising and working necessary Food and Covering ; and of the specu- lative men, how few do study *Nature* and *Things* ! The more ingenious not advancing much further than to write and speak wittily about these matters.

I conclude, That a clear know- ledge of all these particulars, and many more, whereat I have shot but at rovers, is necessary, in order to good, certaine, and easie Govern- ment, and even to ballance Parties and FaCTIONS, both in *Church* and

State. But whether the knowledge thereof be necessarie to many, or fit for others than the Sovereigne and his chief Ministers, I leave to consideration.

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A P P E N D I X.

FOrasmuch as a long and serious
 perusal of all the Bills of Mortali-
 ty, which this great City hath afforded
 for almost fourscore years, hath advan-
 ced but the few observations comprised
 in the fore-going Treatise ; I hope ve-
 ry little will be expected from the few
 scattered papers that have come to my
 hands since the publishing thereof, e-
 specially from one that hath learned
 from the *Royal Society*, how many Ob-
 servations go to the making up of one
Theoreme, which like Oaks and other
 Trees

Trees fit for durable Building) must be of many years growth.

The Accounts which follow, I reckon but as Timber and Stones; and the best inferences I can make, are but as hewing them to a Square: as for composing a beautiful & firm structure out of them, I leave it to the Architecture of the said Society, under whom I think it honour enough to work as a Labourer.

My first Observation shall be, That at *Dublin* the number of Weekly Burials being about 20, and those of *London* about 300, as also the number of People reckoned to be within the limits of the Bills of Mortality at *London* to be 460000; it will follow that the Number of Inhabitants of *Dublin* to be about 30000, viz, about one fifteenth part of those

those in and about *London*, which agrees with that Number which I have heard the Books of Poll-Money raised but little before the time of this Bill, have exhibited as the Number of Inhabitants of that City: So as although I do not think one single Weekly Bill is sufficient to ground such a conclusion upon, yet I think that several yearly Bills is the best of the easie ways from which to collect the Number of the People.

Secondly although I take it for granted, that in *Dublin* there be more Born than Buried, because the same hath appeared to be so in *London* by the Bills of Mortality before the year 1641, when the Civil Wars began, and much more eminently in *Amsterdam*, as shall be hereafter shewn; yet there are
but

but 14 set down as Christned ; which shews that the defect there is much the same as at *London*, whether the cause thereof be negligence in the Register, or non-conformity to Publick Order, or both I leave to the curious. I believe the cause is also the same, for as much as I heard it to be a Maxim at *Dublin*, to follow if not forerun, all that is, or as they understand will be, practised in *London*; and that in all particulars incident to humane affairs.

I have here incerted two other Country Bills, the one of *Cranbrook* in *Kent*, the other of *Tiverton* in *Devonshire*; which with that of *Hantsire*, lying about the midway between them, give us a view of the most Easterly, Southerly, and Westerly parts of *England*,

land: I have endeavoured to procure the like account from *Northumberland, Cheshire, Norfolk* and *Notinghamshire*; Thereby to have a view of the seven Countrys most differently situated, from whence I am sorry to observe that my Southern friends have been hitherto more curious and diligent than those of the *North*. The full Observation from these Bills is, that all these three Country Bills agree, that each Wedding produces four Children which is likewise confirmed from the Bills of *Amsterdam*. Secondly they all agree that there be more Males born than Females but in different proportions, for at *Cranbrook* there be 20 Males for 19 Females, in *Hantsire*, 16 for 15. in *London* 14 for 13, and at *Tiverton*, 12 for 11. Thirdly, I have inserted
 the

the Bills themselves, to the end that whoever pleases may examin, by all three together, the Observations I raised from the *Hantsshire* Bill alone; conceiving it will be more pleasure and satisfaction to do it themselves, than to receive it from another hand. Only I shall add as a new Observation from them all, that in the years 1648 and 1649. being the time when the people of *England* did most resent the horrid Parricide of his late Sacred Majesty, that there were but nine weddings in that year in the same places, when there were ordinarily between 30 and 40 *per Annum*; and but 16, when there were ordinarily at other times between 50 & 60. And it may be also observed that something of this black murder appeared in the years 1643 and

1644 when the Civil war was at the highest, but the contrary years 1654, 1655, &c. to prevent the new way of Marriage then imposed upon the people.

I have also supplied the Tables from the three general Bills for the years 1662, 1663, and 1664, which you will find to justify the former observations. But most eminently that which I take to be of most concernment, namely, of the difference between the numbers of Males and Females.

In the former Observations I did endeavour to deduce the number of the Inhabitants about the City of *London*, from the Bills of Mortality, concluding them to be about 460000, and did likewise set forth by what steps the people of the said City have increased

creased from two to five since the year 1600.

And particularly in what proportions the City Increased in its several parts from time to time ; I have now procured an account of the men, women and children which were *Anno 1631* found within the Liberties of *London* which are circumscribed by *Temple-Bar*, *Holborn-Bars*, *Smithfield-Bars*, *Shorditch-Bars*, *White-chappel-Bars*, & to the *Tower Liberties*, and *Meal-market* in *Southwark* ; By which account I hope it will appear, that I computed too many rather than too few, although the most part of men have thought otherwise. Nor do I wonder at it, since I never observed more enormous mistakes in any matter than concerning the number of people,

Ale-

Ale-houses, Coaches, Ships, Sea-men, Water-men, and several other Trades-men, &c. The proportions of all which I have always thought it necessary to be known, in order to an exact Symmetry of the several Members of a Commonwealth. I say, that the whole number of Inhabitants exceeds not 460000.

1. The number of Men, Women, and Children, found in the City and Liberties 1631 was 130178.

2. The Liberties of the City of London, consist of the 97 Parishes within the Walls, and of $\frac{1}{2}$ of the 16 Parishes next without them, which estimate of mine, nevertheless, I leave to examination.

The Liberties of London, from the year 1631, to the year 1661, increased

from 8 to 11, as may appear by the Tables, and consequently the said 130000, found in the year 1631, were increased to 179000, in Anno 1661.

Lastly, the Liberties of *London* in the year 1661 were in proportion to the whole, as 4 to 9, and consequently if there were 179000 souls in the said Liberties, there was not above 403000 in the whole number of Parishes then comprehended in the Bills of Mortality.

The substance of the *Amsterdam* Bills of Mortality is, viz.

1. That there died in the several years of the Plague, as followeth :

Anno	1622	_____	4141
	1623	_____	5929
	1624	_____	11795
	1625	_____	6781
	1626	_____	4425

1627	—————	3976
1628	—————	4497
1636	—————	17193
1655	—————	16727
1663	—————	9752
1664	—————	24148

2. That there are eleven Burying-places, besides the Hospital & Peithouse, 257 Streets and Lanes, with 43 Burg-walls and Grachts in that City.

3. That in seven years, beginning from the 15 of *August* 1617 to the same day 1624, there were Christned in the reformed Churches of *Amsterdam* 52537, and that there died in the same time 32532. So as there were 20005 more born than buried, besides those that were Christned in other Congregations. And in the same time were 16430 publish'd Marriages.

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4 That in the first week of *September* 1664, there died 1041, and in 18 weeks before the Burials increased from 331, up to the said number of 1041, and in twelve weeks after, decreased back to the like number of 330.

5. In *February* following, there died but 118 a week, and the ordinary number of weekly Burials is about 100, so as *Londⁿ* seems to be three times as big as *Amsterdam*.

6. I have likewise hapened on some other Accompts, relating to Mortalities of some great Cities of the World, of what Authority I know not, but as Printed at *Amsterdam* 1664, viz. *Anno* 1619 there died in *Grand Cairo* in 10 weeks 73500, without any visible diminution of the people.

7. *Anno*

7. *Anno* 1625 there died in *Leyden* 9597. *Anno* 1635, there died in the same City of *Leyden*, from the 14 of *July*, to the 29 of *December* 14381, the greatest week of Mortality being the latter end of *October*, was 1452. This *Plague* in 15 weeks, increased from 96, to the said number of 1452, and in ten weeks after decreased to 107. Answerable to the time of increase and decrease aforementioned in *Amsterdam*, *Anno* 1655. there died in 21 weeks, from *July* to *November* 13287, the greatest week being *Septemb.* 25, when died 896.

8. At *Harlem* there died in the same year, in the months of *August*, *September*, *October* and *November* 5723.

9. *Anno* 1637 in *Constantinople*, there died 1500 *per diem*, but how long

this Plague lasted, appeareth not.

10. The same year died in *Prague* 20000 Christians, and 10000 Jews.

11. *Anno* 1652 there died in *Cracovia* 17000 Christians, and 20000 Jews.

12. *Anno* 1653 there died in *Dantzick* in the last week of *September* 640, and in *Conningsburg* 490.

13. 1654 there died in *Copenhagen* for several weeks, 700 *per week*.

14. *Anno* 1655 there died at *Amsterdam* and *Leyden*, as above-mentioned; and at *Deventon*, 70, 80, and 90 *per diem*.

15. At *Leeuwardeen* 56 *per diem*.

16. *Anno* 1656 there was so sweeping a *Plague* at *Naples*, that there died of it at the latter end of *May* 1300, or 1400 *per diem*. The sixth of *June* there were

were 80000 sick, that the well were not able to help, or bury the dead ; presently after there died 5000 in three days; in *August* it began to cease, after it had destroyed 300000 people.

17. The Town of *Scala* in *Italy* was quite dispeopled, and at *Minory* there scaped but 22. At *Rome* there died in the same year about 100 *per diem* for a great while together.

18. 1657 There died at *Genoway* in *Midfomer* week 1200, afterwards there died 1600 *per diem* ; in so much that in the beginning of *August* they burnt the dead Corps for want of hands to bury them, which great Mortality decreased to five or six *per diem* before *September* was out. The total sum of all that died was about 70000.

19. At *Bergen* in *Norway*, Anno 1618, the *Plague* is represented to have been very terrible, by saying there died 50 or 60 *per diem*, and that the whole City was in tears, that the Coffin-makers refused to make Coffins, that parents carried their children, and children their parents to the Grave. But for as much as it was not mentioned how populous this place was, nor for how many days the Mortality continued, I can make but little estimate of this *Plague*, by what is above related,

20. The general Observations arising from the above-mentioned particulars, are as followeth :

First, That Northern, as well as Southern Countries, are infested with great *Plagues*; although in the Southern

thern Countries they are more vehement and do both begin and end more suddenly.

21. Secondly, from the year 1652 the Plague was at *Crakow*, 1653 at *Danzick* and *Coningsberg*, 1654 at *Copenhagen*, 1655 at *Leyden* and *Amsterdam*, and other Towns in the *Netherlands*, 1656, at *Naples* and *Rome*, 1657 at *Genoa*; So as it well deserves enquiry, whether the Plague in all these places were a sickness of the same kind, and did successively perambulate the several Countries above-mentioned; or whether it were a several disease in each place.

22. Thirdly, that the Plague is longer in rising to its height, then in decreasing to the same pitch; and the proportion thereof, in such cases where
it

it hath most plainly appeared, is about three to two; for at *Amsterdam* it was eighteen weeks rising; and twelve decreasing; and at *Leyden* fifteen upon the increase, and ten decreasing.

It may be further observed, that in the four several times of great Mortality in *London*, the height was not alwaies in the same moneth; for *Anno* 1592 it was the second week in *August*, when there died 1550 of all diseases; in the year 1603 the height was the second week of *September*, when there died 3129 of all diseases; in the year 1625 the extremity was in the third week in *August*, when there died 5205. *Anno* 1636 the like extremity was in the first week of *October*, there then dying 1405 of all diseases. In this place I think fit to intimate

intimate, that considering the present increase of the City from *Anno* 1625 to this time, which is from eight to thirteen, that until the Burials exceed 8400 *per week* the Mortality will not exceed that of 1625. Which God for ever avert.

It may be further observed, that the time of the Plagues continuance at the height was of several durations, for *Anno* 1592 it continued from the first week in *July* to the second of *September*, without increasing or decreasing above 100 in 1600; whereas in 1603 it remain'd but three weeks at the state, decreasing near $\frac{1}{4}$ the next week after the height; *Anno* 1625 it remained not three weeks at a stay, increasing $\frac{1}{8}$ the next week before the height, and decreasing as much the

the next week after. *Anno* 1636 it stood five weeks without increasing or decreasing above $\frac{1}{16}$ part afore-mentioned.

Concerning the disease of the Plague, *Anno* 1592 it decreased to $\frac{1}{16}$ of the greatest number that died in the twenty weeks; *Anno* 1603, it did the same in eleven; *Anno* 1625, in nine weeks; *Anno* 1636, as it was not so fierce as in the other years, so it was of longer continuance as hath been elsewhere noted.

The last thing I shall observe is, that in all the four great years of mortality above-mentioned, I do not find that any week the Plague encreased to the double of the precedent week above five times.

Anno 1631. Ann. 7. Caroli I.

The number of Men, Women, and Children in the several Wards of London, and Liberties: taken in August, 1631 by special command from the Right Honourable the Lords of His Majesties Privy Council.

Algate Ward	04763	Aldersgate	03594
Bishopsgate	07788	Limestreet	01017
Bassishaw	01006	Queanhieth	03358
Breadstreet	02568	Vintry	02742
Bridg-ward within	02392	Tower ward	04248
Bridg-ward without	18660	Dowgate	03516
Billingsgate	02597	Langbourn	03168
Broadstreet	03503	Portoken ward	05703
Colemanstreet	02634	Cheap-ward	02500
Cornhil	01439	Wallbrook	02069
Criplegate without	06445	Candleweek ward	01696
Criplegate within	04231	Castle Baynard	04793
Farington without	20846		38404
Farington within	08770		
Cordwainer	02138		
	<hr/>		
	89880		

Bartholomew the great — 01388

Bartholomew the less — 00506

38404

89880

130178

The Table of Burials and Christnings
in London.

Anno Dom.	97 Pari- shes.	16 Pari- shes.	Out- Pari- shes.	Buried in all	Besides of the Plague	Christ- ned.
1604	1518	2097	708	4313	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	2662	6845
1609	2494	3610	1441	7545	4240	6388
1610	2316	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	7999	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	3285	1965	7401	134	6701
1627	2325	3400	1988	7711	4	8408
	24569	39940	19970	84000	35631	62114

(175.)

The Table of Burials and Christnings
in London.

Anno Dom.	57 Pari- shes.	16 Pari- shes.	Out- Pari- shes.	Buried in all.	Besides of the Plague	Christ- ned.
1628	2412	3311	2017	7740	3	8564
1629	2536	3992	2243	8771	0	9901
1630	2506	4201	1521	9237	1317	9315
1631	2459	3697	2132	8288	274	8524
1632	2704	4412	2411	9527	8	9584
1633	2378	3936	2078	8393	0	9997
1634	2937	4980	2982	10399	1	9855
1635	2742	4966	2943	10651	0	10034
	20694	33495	19327	73505	1603	75774
1636	2825	6924	3210	12959	10400	9522
1637	2238	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	10850
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	4174	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

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(176)

*The Table of Burials and Christnings
in London.*

Anno Dom.	97 Pari- shes.	16 Pari- shes.	Out. Pari- shes.	Buried in all.	Besides of the Plague	Christ- ned.
1652	3293	5719	3546	12553	16	6128
1653	2527	4635	2919	10081	6	6155
1654	3323	6063	3845	13231	16	6620
1655	2781	5148	3439	11348	9	7004
1656	3317	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	2926	12668	13	6971
1661	3804	7309	5532	16645	20	8855
1662	3123	6094	4423	13652	12	10019
1663	3001	5602	4129	12732	09	10292
1664	3448	7160	4829	15448	05	11722

The

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

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Note,

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

Anno Domini	Westminster		Islington		Lambeth		Stepney		Newington		Hackney		Redriff		7 Parishes.		Total in the	
	Bur.	Ch.	B.	C.	Bur.	Ch.	Bur.	Ch.	Bur.	Ch.	B.	C.	B.	C.	Bur.	Ch.	Bur.	Ch.
1636	1107	550	99	56	213	137	1895	881	584	1555	62	77	90	62	40	56	192	192
	442		30		45		909		242		14	20			1702			
1637	963	496	94	72	173	137	952	838	183	172	58	70	74	51	2507	183		
	301		17		18		153		16		6	10			521			
1638	1021	563	116	49	221	140	1209	908	255	146	101	69	74	73	2997	195		
	126				8		11								145			
1639	546	543	88	3	195	132	970	956	187	159	54	53	81	52	2151	194		
	4		2				2						1		9			
1640	754	665	94	54	187	142	1106	983	189	194	76	54	53	77	2459	215		
	62		3		6		117						1		189			
1641	697	625	92	76	168	137	1250	1037	170	137	52	73	69	64	2508	214		
	40		5		9		70				4				138			
1642	671	630	98	71	149	124	1270	1158	160	145	78	58	63	76	2480	126		
	37		4		12		20		17		5		4		99			
1643	666	592	105	59	177	114	1167	1013	240	147	63	36	42	67	2471	203		
	25		3		45		83		86				2		244			
1644	570	429	61	55	115	105	1187	933	123	101	54	45	70	82	2189	175		
	35		8		8		269		44		3	17			384			
1645	621	444	55	63	146	114	1171	873	183	119	58	50	50	60	2284	175		
	62		6		3		150		18		7	1			256			
1646	691	503	84	61	137	108	1230	960	156	130	76	63	47	43	2421	187		
	76		8		5		97		14		9	2			203			
1647	730	464	108	56	161	94	1126	926	129	65	88	45	42	44	2933	168		
	114		12		25		155		28		86		4		414			
1648	561	384	68	46	87	57	1137	767			57	42	45	59	1635	130		
	41		4				31				6				82			

Anno Domini	Weymouth		Islington		Lambeth		Stepney		Newington		Hackney		Redriff		7 Parishes		Total in the	
	Bu	Ch	B	Ch	Su	Ch	Bur	Ch	Bu	Ch	B	Ch	B	C	Out	Chr	Chr	Chr
1649	518	333	90	44	131	55	838	625			90	49			1807	1106		
1650	470	413	75	4	88	50	748	572	55	65	61	48	50	62	1554	1264		
1651	580	345	105	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		
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	8	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	34	13	2823	1418		
1660	723		108		83		1151		114		65		33		2437			
1661	932		102		130		1561		340		102		87		3503			
1662	848		59		210		1531		76		101		77		2902			
1663	793		41		99		1241		188		73		80		2615			
1664	803		50		36		1392		235		80		40		2843			

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	4602	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	37074
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	3362	3181
	51577	47185	34804	32755

An. Dom.	Buried		Christened	
	Males	Females	Males	Females
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	3209	2781
1660	7960	7158	3724	3247
1661	10448	9287	4748	4107
1662	8623	7931	5216	4803
1663	8035	7321	5411	4881
1664	9269	8928	6041	5681
	66400	60843	34902	31802
Total	235427	214658	156750	146231

The Table of the Country-Parish.

Years	Commu- nicants	Wed- dings	Chrirtened			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	Christned			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		23	23	25	48	53	64	117
98		21	37	29	66	33	23	66
		175	342	274	616	337	219	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	17	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	Wed- dings	Christned			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	338	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	Chriftned		Both	Buried.		Both
		M.	F.		M.	F.	
1629	22	53	38	91	46	28	74
30	8	58	45	103	26	27	53
31	20	42	29	71	28	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	39	70
42	21	48	39	87	32	29	61
43	8	30	41	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
1648	9	35	27	62	25	31	56
	137	351	357	708	375	383	758

The Table of the Country-Parish.

Years	Weddings	Chriftned		Both	Buried.		Both
		M.	F.		M	F.	
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	39	29	68	13	15	28
	182	354	320	674	218	220	438

The

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

Both Decads of Years	Married	Christened		Both	Buried		Both
		Males	Females		Males	Females	
15 { 69 78	190	312	302	614	214	221	435
15 { 79 88	185	328	309	637	287	302	589
15 { 89 98	175	342	274	616	337	284	621
1 { 599 608	181	366	377	743	249	219	468
16 { 09 18	197	417	358	775	338	386	724
16 { 19 28	168	368	373	741	305	306	611
16 { 29 38	153	418	413	831	317	319	636
16 { 39 48	137	351	357	708	375	383	758
16 { 49 58	182	354	320	674	218	220	348
	1598	3256	3083	6339	2640	2640	5280

The number of the Weddings, Christnings and Burials that were in the Town and Parish of Tiverton, from March 1560 to January 1664 ; as appeareth by the Registers.

Years	Weddings	Christned		Both	Buried.		Both
		M.	F.		M	F.	
1560	37	23	29	52	43	28	71
61	51	55	31	66	36	34	70
62	16	59	50	109	32	34	66
63	19	39	50	89	27	15	42
64	19	47	50	97	21	15	36
65	14	51	27	78	26	28	54
66	19	67	44	111	23	12	35
67	23	52	42	94	28	16	44
68	15	50	34	84	25	25	50
69	19	40	37	77	23	38	61
	232	463	394	857	284	245	529

The

The Table of the Parish of Tiverton.

Years	Weddings	Christned		Both	Buried.		Both
		M.	F.		M.	F.	
1570	17	51	45	96	45	58	103
71	21	46	26	72	70	68	138
72	35	52	44	96	30	23	53
73	38	55	39	94	22	19	41
74	37	42	50	92	25	28	53
75	32	51	71	122	33	21	54
76	27	62	65	127	43	93	136
77	27	79	46	125	54	76	130
78	38	59	57	116	42	54	96
79	45	56	59	115	35	63	98
	317	553	502	1055	399	503	902
1580	35	61	63	124	36	43	79
81	34	62	64	126	37	39	76
82	34	68	67	135	45	38	83
83	33	54	44	98	31	47	78
84	28	77	59	136	89	43	82
85	11	69	64	133	32	52	84
86	27	42	40	82	49	40	89
87	27	57	63	120	76	94	170
88	36	67	65	132	57	43	100
89	33	83	70	153	47	55	102
	298	640	599	1239	449	494	943

The Table of the Parish of Tiverton.

Years	Weddings	Christned		Both	Buried.		Both
		M.	F.		M.	F.	
1590	39	60	64	124	62	87	149
91	48	56	44	100	268	282	550
92	43	75	77	152	37	48	85
93	48	63	48	111	37	65	102
94	37	66	98	164	31	47	78
95	38	54	52	106	37	60	97
96	22	60	58	118	51	77	128
97	18	37	29	66	124	153	279
98	23	44	38	82	45	103	148
99	42	50	79	123	27	27	54
	35	565	521	1146	719	949	1668
1600	38	64	54	118	28	38	66
1	33	52	82	134	28	36	64
2	37	65	62	127	41	42	83
3	52	60	83	143	50	36	86
4	28	75	63	138	27	63	90
5	49	62	68	130	33	48	81
6	37	79	77	156	45	42	87
7	47	89	77	166	34	52	86
8	37	60	86	146	51	64	115
9	34	70	69	139	27	49	76
	392	676	721	1379	364	470	834

The Table of the Parish of Tiverton.

Years	Weddings	Christned		Both	Buried.		Both
		M.	F.		M.	F.	
1610	31	83	88	171	62	50	112
11	51	83	96	179	39	41	80
12	47	79	70	149	58	45	103
13	38	74	77	151	39	40	79
14	46	90	88	178	42	41	83
15	55	88	84	172	39	44	83
16	24	111	100	211	53	59	112
17	41	99	79	178	57	57	114
18	46	102	79	181	32	44	76
19	30	104	102	206	65	72	137
	409	913	863	1776	486	493	979
1620	42	105	72	177	53	53	106
21	74	111	111	222	61	51	112
22	40	89	104	193	60	86	146
23	52	108	88	196	80	101	181
24	52	95	95	190	60	68	128
25	57	131	117	248	86	61	147
26	66	97	101	198	73	95	168
27	67	143	110	253	98	45	143
28	66	103	114	217	87	98	185
29	77	124	108	232	62	68	130
	593	1106	1020	2126	720	726	1446

The Table of the Parish of Tiverton.

Years	Weddings	Christned		Both	Baried.		Both
		M.	F.		M.	F.	
1630	73	117	123	240	104	74	178
31	40	118	100	218	85	91	177
32	63	106	104	210	84	83	167
33	63	114	121	235	75	71	146
34	54	114	95	209	73	91	164
35	82	124	111	235	84	92	176
36	43	135	113	248	85	87	172
37	42	110	98	208	106	142	248
38	62	112	112	224	194	170	364
39	62	109	106	225	115	137	252
	584	1169	1083	2252	1005	1039	2044
1640	66	124	114	238	82	104	186
41	52	122	114	236	83	88	171
42	59	102	136	238	110	128	238
43	54	115	117	232	102	88	190
44	22	76	78	154	23	213	445
45	47	95	175	270	99	92	191
46	41	61	50	111	3	3	6
47	23	116	106	222	7	3	10
48	22	85	67	152	24	17	41
49	16	96	92	188	21	30	51
	402	992	1049	2041	763	766	1529

The Table of the Parish of Tiverton,

Years	Weddings	Christned		Both	Buried.		Both
		M.	F.		M	F.	
1650	9	66	79	145	7	9	16
51	9	50	63	113	5	10	15
52	9	80	73	153	48	51	99
53	21	89	219	208	47	78	125
54	108	105	101	206	72	68	140
55	140	87	104	191	87	114	201
56	109	107	90	197	56	86	142
57	102	94	101	195	67	59	126
58	60	70	83	153	77	85	162
59	37	77	78	155	72	80	152
	604	813	891	1716	538	640	1178
1660	27	61	68	129	70	69	139
1	38	83	93	176	73	85	158
2	36	73	56	129	91	95	186
3	35	68	64	132	72	74	146
4	41	68	72	140	98	114	212
	177	353	353	706	404	427	831

The Number of the Weddings, Christenings, and Burials, that were in the Parish of Cranbrook, from March 26 1560 to March 24. 1649; (as appeareth by the Register) only in the years 1571 and 1565 the Christnings are wholly omitted, because the Register is very imperfect for the greater part of those years.

Years	Weddings	Christned			Buried		
		M.	F.	Both	M.	F.	Both
1560	20	36	33	69	29	21	50
61	24	46	33	79	23	22	45
62	33	32	26	58	40	31	71
63	15	28	21	49	19	24	43
64	23	29	29	58	10	8	18
65	29	44	29	73	37	34	71
66	25	39	26	65	69	35	104
67	28	42	41	83	36	21	57
68	22	38	44	82	31	31	62
69	22	36	35	71	25	19	44
	231	370	317	687	319	246	565

The Table of the Parish of Cranbrook.

Years	Weddings	Christned		Both	Buried.		Both
		M.	F.		M.	F.	
570	18	30	44	74	26	36	62
71	21	31	27	58	31	16	47
72	25	35	34	69	24	39	63
73	29	28	25	53	29	21	50
74	23				28	28	56
75	25				18	14	32
76	29	49	42	91	17	16	33
77	16	36	48	84	23	21	44
78	24	42	39	81	19	16	35
79	21	47	44	91	26	18	44
	235	298	303	601	241	225	466
80	30	47	42	89	26	23	49
81	28	61	46	107	32	30	62
82	26	58	49	117	52	37	89
83	24	59	44	103	24	20	44
84	25	53	55	108	24	29	53
85	22	60	52	112	16	14	30
86	17	53	50	103	28	22	50
87	20	45	53	98	28	24	52
88	24	57	59	116	24	21	45
89	19	59	44	103	17	28	45
	235	552	504	1051	271	248	519

*Whereof
of the
Plague.
18
41
22*

The Table of the Parish of Cranbrook.

Years	Wed dings	Chrisedened			Buried			
		M.	F.	Both	M.	F.	Both	
1590	25	64	52	116	21	17	38	
91	26	41	52	93	34	43	77	0101
92	20	59	46	105	39	31	70	11
93	23	54	47	101	22	17	39	21
94	22	48	37	85	24	23	47	31
95	14	55	53	108	35	36	71	41
96	17	35	42	78	42	25	67	51
97	22	37	19	56	112	110	222 pl.	181.
98	22	47	41	88	27	34	59 pl.	8.
99	30	56	40	96	19	20	39	
	221	497	429	926	373	356	729	
1600	16	48	44	92	16	18	34	12
1	19	44	41	85	19	29	48	22
2	25	50	43	93	28	26	54	32
3	22	68	51	119	36	28	64 pl.	9
4	36	47	61	108	20	24	44	42
5	23	56	39	95	38	30	68	52
6	23	42	44	86	30	31	61 pl.	1
7	29	51	65	116	48	30	78	22
8	13	56	35	91	33	31	64	
9	16	40	37	77	43	46	89 pl.	1
	223	502	460	962	311	292	603	

The Table of the Parish of Cranbrook.

Years	Weddings	Christned		Both	Buried.		Both
		M.	F.		M.	F.	
1610	26	45	42	87	32	42	74
11	27	39	44	83	44	53	97
12	16	44	39	83	50	43	93
13	22	43	41	84	46	50	96
14	22	50	44	94	55	35	90
15	35	56	44	100	64	61	125
16	29	35	54	89	40	47	87
17	20	49	52	101	50	48	98
18	32	38	51	89	37	58	95
19	22	47	40	87	50	44	94
	261	446	451	897	468	481	949
1620	27	59	61	120	45	52	97
21	26	54	50	104	40	46	86
22	14	61	65	126	27	28	55
23	18	37	37	74	33	34	67
24	45	59	60	119	44	31	75
25	22	44	59	103	54	56	110
26	26	36	45	81	42	49	97
27	25	45	55	95	36	38	74
28	38	57	60	117	56	70	126
29	48	60	58	118	51	44	95
	289	512	545	1057	434	448	882

The Table of the Parish of Cranbrook.

Year	Weddings	Christned		Both	Buried.		Both
		M.	F.		M.	F.	
1630	25	58	64	122	41	52	93
31	15	51	46	97	46	42	88
32	20	57	56	113	56	52	108
33	19	73	55	128	44	44	88
34	30	63	52	115	46	51	97
35	18	54	57	111	56	50	106
36	15	52	53	107	39	60	99
37	31	61	85	126	47	49	96
38	22	49	56	105	73	80	153
39	28	31	36	67	63	51	114
	223	549	542	1019	511	531	1042
1640	30	65	50	115	70	54	124
1	20	51	62	113	51	36	87
2	27	47	40	87	39	53	92
3	20	68	63	131	68	59	117
4	23	51	60	111	37	49	86
5	31	55	46	101	30	46	76
6	14	63	51	114	69	65	134
7	18	44	36	83	72	47	119
8	6	35	23	58	55	60	115
9	7	37	26	63	58	48	106
	196	516	460	976	549	517	1066

Dublin,

Dublin, A Bill of Mortality from the
26 of July to the 2d of August

1662.

	Baptiz.	Plague	Spot Feav.	Small-Pox	Consumpt.	Fever	Aged	Rickets	Flux
Saint Michans	1						1		
St. Katharines & St. James	2								1
St. Audoens					1				
St. Michaels	2				2				2
St. Johns							2		2
St. Nicholas without	5				1		1		1
St. Nicholas within	1								1
St. Warbrows & S. Andrews	2				1				
St. Keavans					1				
St. Brides	1				2				

The Total Baptized 14.

Total Buried 20.

Jacob Thring, Reg.

**A TABLE, Shewing how many Died Weekly, as well of all Diseases, as of the Plague, in the Years
1592, 1603, 1625, 1630, 1636 and this present Year 1665.**

Buried of all Diseases in the Year 1592.		Buried of all Diseases in the Year 1603.		Buried of all Diseases in the Year 1625.		Buried of all Diseases in the Year 1630.		Buried of all Diseases in the Year 1636.		Buried of all Diseases in the Year 1665.								
Total	Plag.	Total	Plag.	Total	Plag.	Total	Plag.	Total	Plag.	Total	Plag.							
March 17	230	3	March 17	108	3	March 17	262	4	June 24	205	19	April 7	119	2	December 27	291	1	
March 24	351	31	March 24	60	2	March 24	226	8	July 1	209	25	April 14	205	4	January 3	349		
March 31	219	29	March 31	78	6	March 31	243	11	July 8	217	43	April 14	250	50	January 10	394		
April 7	307	27	April 7	66	4	April 7	239	10	July 15	250	50	April 14	229	40	January 17	415		
April 14	203	33	April 14	79	4	April 14	256	24	July 22	279	77	April 21	250	56	January 24	474		
April 21	290	37	April 21	98	8	April 21	230	25	July 29	246	65	April 28	285	14	January 31	409		
April 28	310	41	April 28	109	10	April 28	305	26	August 5	269	54	April 28	259	17	February 7	393		
May 5	350	29	May 5	50	11	May 5	292	30	August 12	270	67	May 5	251	10	February 14	461	1	
May 12	239	38	May 12	112	18	May 12	232	45	August 19	230	66	May 12	308	55	February 21	393		
May 19	300	42	May 19	122	22	May 19	379	71	August 26	259	63	May 19	299	35	February 28	396		
May 26	450	58	May 26	122	32	May 26	401	78	September 2	274	57	May 26	330	62	March 7	441		
June 2	410	62	June 2	114	30	June 2	395	69	September 9	269	56	June 2	339	77	March 14	453		
June 9	441	81	June 9	131	43	June 9	434	91	September 16	236	66	June 9	345	87	March 21	365		
June 16	399	99	June 16	144	59	June 16	510	161	September 23	261	73	June 16	381	103	March 28	353		
June 23	401	108	June 23	182	72	June 23	640	229	September 30	248	60	June 23	304	79	April 4	344		
June 30	850	118	June 30	267	158	June 30	942	390	October 7	214	34	June 30	352	104	April 11	382		
July 7	1440	927	July 7	445	263	July 7	1222	593	October 14	28	2	July 7	215	81	April 18	344		
July 14	1510	893	July 14	612	424	July 14	1781	1004	October 21	21	1	July 14	372	104	April 25	390	2	
July 21	1491	258	<i>The Out-Parishes this Week were joyned with the City.</i>			July 21	2850	1819	October 28	214	34	July 21	365	120	May 2	388		
July 28	1507	852				July 28	3583	2471	October 28	242	29	October 28	226	7	July 28	423	151	May 9
August 4	1503	983	August 4	4517	3659	August 4	4517	3659	November 4	11	1	August 4	491	206	July 16	353	3	
August 11	1550	797	August 11	1186	917	August 11	4855	4115	November 11	18	1	August 11	538	283	July 23	385	14	
August 18	1532	651	August 18	1728	1396	August 18	5205	4463	November 18	25	2	August 18	638	321	July 30	399	17	
August 25	1508	449	August 25	2256	1922	August 25	4841	4218	December 2	9	1	August 25	787	429	August 6	405	43	
September 1	1490	507	September 1	2077	1745	September 1	3897	3344	December 9	16	1	September 1	1011	638	August 13	558	112	
September 8	1210	563	September 8	3054	2713	September 8	3157	2550	December 16	212	5	September 8	1069	650	August 20	611	168	
September 15	621	451	September 15	2853	2539	September 15	2148	1612	<i>Buried in the 97 Parishes within the Walls 2696 Whereof of the Plag. 190 Buried in the 16 Parishes without the Walls 4813 Whereof of the Plag. 603 Buried in the 9 Out-Parishes in Middlesex and Surry, and at the Pest-house 3045 Whereof of the Plag. 524 Buried in Westminster 566 Whereof of the Plague 31</i>	September 15	1011	638	September 15	1306	865	September 15	1268	725
September 22	629	349	September 22	3385	3035	September 22	1994	1551		September 22	1229	775	September 22	1761	1089			
September 29	450	330	September 29	3078	2724	September 29	1236	852	October 6	1403	928	September 29	2785	1845				
October 6	408	327	October 6	3129	2818	October 6	833	538	October 6	1405	921	October 6	3014	2010				
October 13	422	323	October 13	2456	2195	October 13	815	511	October 13	1302	792	October 6	4030	2817				
October 20	330	308	October 20	1961	1732	October 20	651	331	October 20	1002	555	October 13	5319	3880				
October 27	320	302	October 27	1831	1641	October 27	375	134	October 27	900	458	October 20	5568	4227				
November 3	310	301	November 3	1312	1149	November 3	357	89	November 3	900	458	October 27	7490	6102				
November 10	309	209	November 10	766	642	November 10	319	92	November 10	1300	838	November 3	8252	6978				
November 17	301	107	November 17	625	508	November 17	274	48	November 17	1104	715	November 10	7690	6544				
November 24	321	93	November 24	727	594	November 24	231	27	November 24	950	573	November 17	8297	7165				
December 1	349	94	December 1	545	442	December 1	190	15	December 1	857	476	November 24	6460	5533				
December 8	331	86	December 8	384	251	December 8	181	15	December 8	614	321	October 3						
December 15	329	71	December 15	198	105	December 15	168	6	December 15	459	167	October 10						
December 22	386	39	December 22	223	102	December 22	157	1	December 22	385	85	October 17						
			December 22	8	163							October 24						
			December 22	15	200							October 31						
			December 22	22	168							November 7						
												November 14						
The Total of all that have been buried is	25886		The Total of all is	37294		The Total of all is	51758		The Total of the Burials this Year, is	23359								
Whereof of the Plague	11503		Whereof of the Plag.	30561		Whereof of the Plague	35403		Whereof of the Plague	10400								

*Advertisements for the better understanding
of the several Tables. videlicet,*

*Concerning the Table of Casualties consist-
ing of thirty Columns.*

THE first Column contains all the
Casualties hapning within the 22
single years mentioned in this Bill.

The 14 next Columns contain two
of the last *Septenaries* of years, which be-
ing 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 be-
tween 1636 and 1647 are omitted

as

as containing nothing Extraordinary,
and as not consistent with the In-
capacity of a Sheet.

The 5 next Columns are the 8 years from 129 to 1636 brought into 2 Qua-
ternions, and the 12 of the 14 last years brought into three more ; that Compa-
rison might be made between each four years taken together, as well as each single year apart.

The next Column contains three 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 all the 15 Quaternions, or 25 years.

The Number 229250 is the total
of

of all the Burials in the said 20 years, as 34190 is of the Burials in the said three distant years. Where note that the $\frac{1}{2}$ of the latter total is 11396, and the $\frac{1}{2}$ of the former is 11462; differing but 66 from each other in so great a sum, *videlicet* scarce $\frac{1}{100}$ part.

*The Table of Burials and Christnings,
consisting of seven 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 altogether 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

Secondly, From the year 1642 forwards, the accompt of the *Christnings* is not to be trusted, the neglects of the same begining 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*, that comparison may be made of them as well as of single years.

*The Table of Males and Females,
containing five Columns.*

First, the Numbers are cast up for 12 years; *videlicet* from 1629, when the distinction between *Males* and *Females* first began, until 1640 inclusive, when

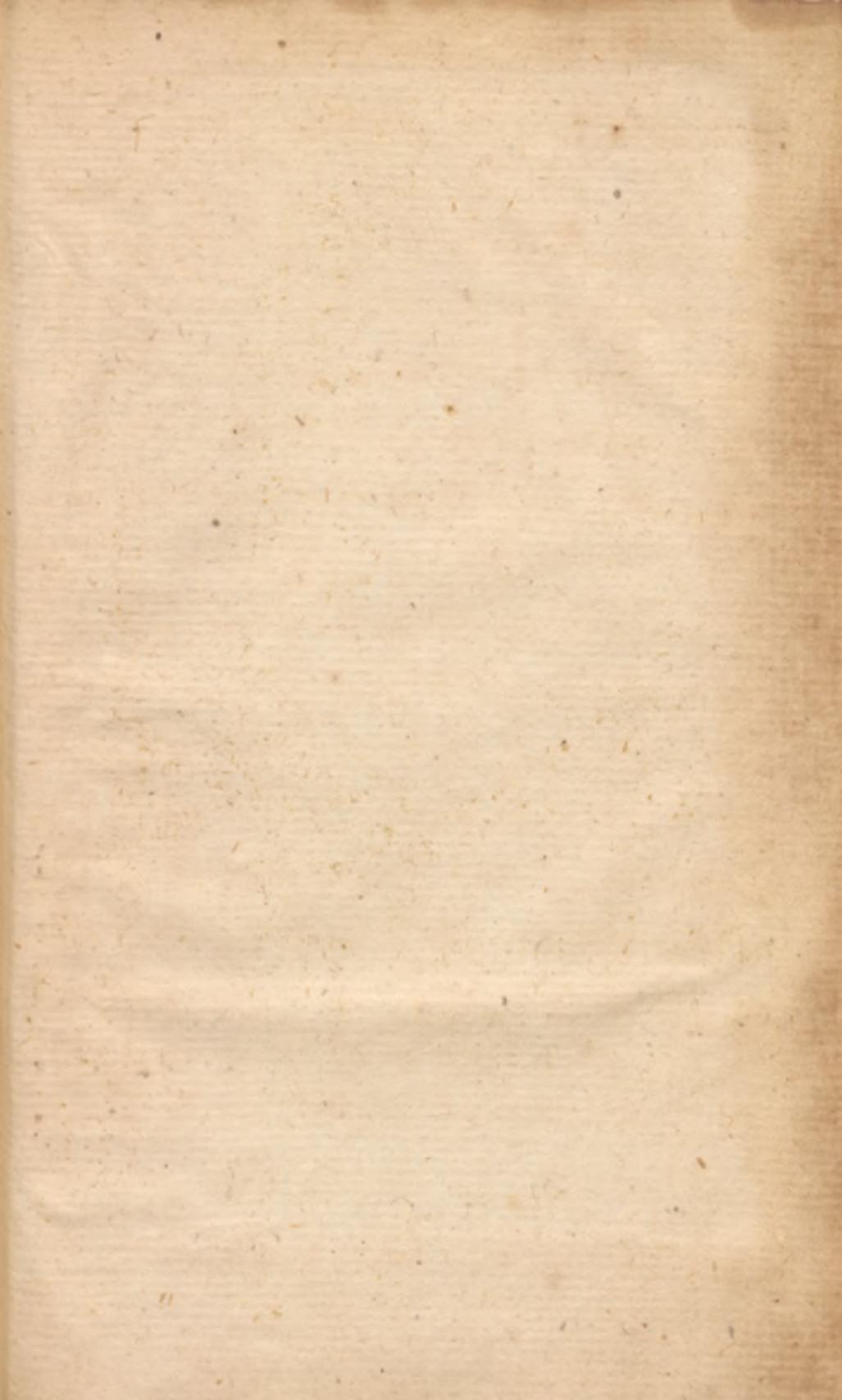
when the exactness in that Account ceased.

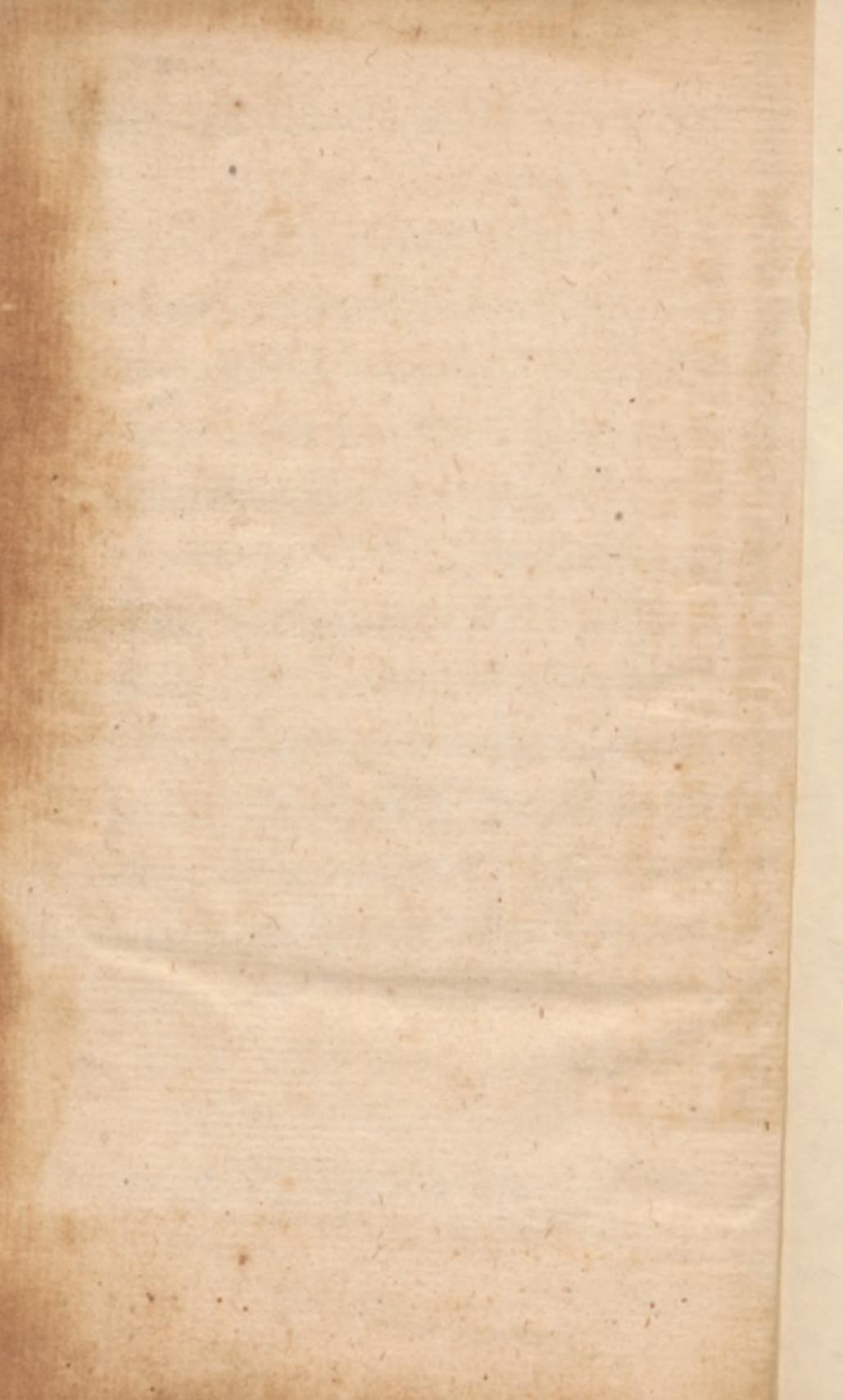
Secondly, From 1640 to 1660 the Numbers are cast up into another total, which seems as good for comparing the Number of *Males* with *Females*, the neglect being in both Sexes alike, and proportionable.

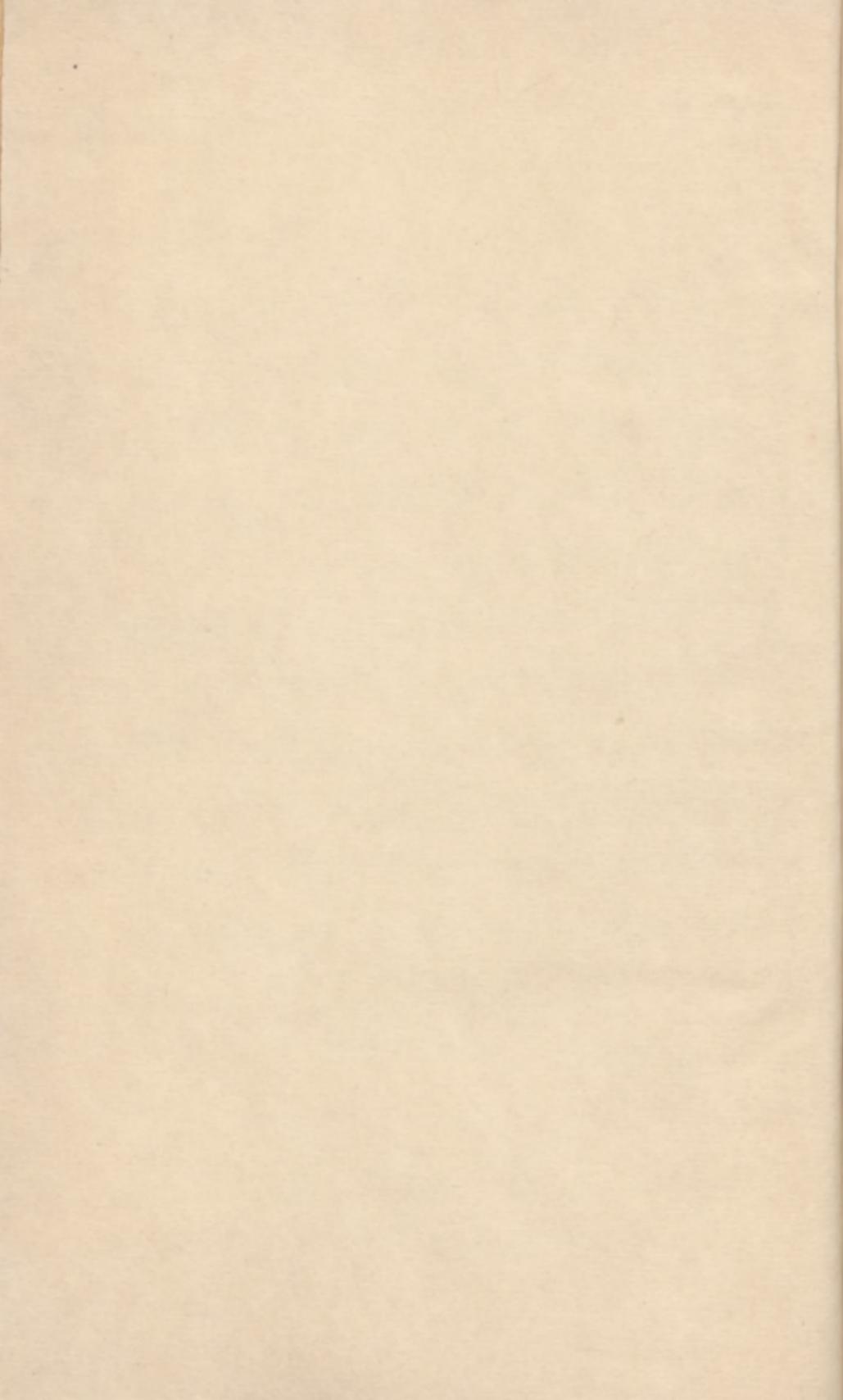
The Tables concerning the *Country-Parish*, the former of *Decads* beginning at 1569, and continuing until 1658, and the latter being for single years, being for the same time, are so plain, that they require no further Explanation than the bare reading of the Chapter relating to them, &c.

F I N I S.

which the extracts in this Account
 contain, are taken from the
 original. From these it is
 thought necessary to add, that
 the numbers are not put into another total,
 which would be required for comparing the
 number of ships with the number of
 vessels being in both Seas alike, and
 proportionable. The Tables
 The Tables concerning the number
 of ships, the number of Dead, beginning
 at 1750, and continuing until 1878, and
 the latter being for single years, being
 for the same time, are so plain, that they
 require no further Explanation than the
 bare reading of the Chapter relating to
 them.







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