

III. *Extract* by John van Rixtel, F. R. S. of Mr. W. Kerseboom's * *Second and Third Treatise* — *Confirming the Manner how to know the probable Quantity of People in the Provinces of Holland and West-Friesland, besides a Foundation on which to prove the probable Lives of Widows, and likewise a Rule whereby to know the Duration of Marriages.*

Second Part.

Read Jan. 27.
1742-3.

MR. Kerseboom having advanced in his *First Treatise*, printed Anno 1738, that the Provinces of *Holland* and *West-Friesland* contained 980,000 Souls, of all Ages, on a well-grounded Supposition, that annually are born in the said Two Provinces 28000 Children alive; but it having been the Opinion, that this should be more clearly demonstrated, has thought it necessary to comply therewith. In order to which, the Author has divided the Provinces into Three general Divisions, distinguished with the Letters *A, B, C*; and given the Names of the several Cities, Towns, and Villages, belonging to the several Letters just now mentioned; and supposes, on good Grounds, (though not on a Mathematical Enumeration, which the Au-

* See an Account of the First Part, *Philosophical Transactions*, N^o. 450. P. 401.

thor could not do, for Reasons assigned in his First Treatise, Page 38.) that in the First Division marked

A.	— are born alive annually	3890 Children.
B.	————— annually	19070 and
C.	————— annually	5040.

which is together — annually 28000 Children.

And, as it has been proved in his First Treatise, by what has been there observed, in relation to Annuities for Life; that for every Child that is born, the whole Number of People is 35 times as many; so it will prove, that these Numbers being multiplied together, it renders 980,000 Souls.

But as it was impossible for the Author (as has been hinted before) to get an exact Account, from all Places, of the Births, Weddings, and Burials, (from which Two last the First is to be cited and proved) he proceeds to give you the chief Observations he was able to obtain; and believes that these, joined with those contained in his First Treatise, will be a sufficient Proof to his general Calculations.

Mr. *Kerffeboom* then goes on, with giving an Account how many People were buried in the City of *Dort* every Year, from 1700 to 1739 inclusive, amounting, in 40 Years, to 28977 Persons; which is annually, on an Average, 724.— The Marriages are 202 Couple annually, during the same time, which should produce (according to the Author's Calculations in his First Treatise, Page 24.) 325 Children *per* 100 Marriages, and consequently 656 Children *per Annum*; but has found it, on an Average, to be 651.— This City being a Sea-Port, and driving a large Trade to *Scotland*, and on the *Rhine*, and consequently

frequently many of the People, whose Traffick brings them to *Dort*, may die there, it is supposed, that about 680 Children are born annually there, and that consequently this City may contain 24000 Souls.

Next to this, the Author gives an Account of *Haerlem*, how many People died there in 84 Years; from 1656 to 1739 inclusive, namely, 132132 Persons, which is annually, on an Average, 1573.—The next is, how many Marriages from *Anno* 1690 to 1739 inclusive, namely, 21910, is annually 438, on an Average.—About the Births, Mr. *Kerffboom* refers to his First Treatise, Page 54. where he supposes, that 1450 Children may be born alive annually; and endeavours to demonstrate it further, by giving an Account of the Births for 60 Years, namely, from 1680 to 1739, and finds it to be 1453; from which it is calculated, that this City contains 50500 Souls, as mentioned in his First Treatise.

The next Account is that of the Burials of *Delft* and *Delftshaven*, from the Year 1724 to 1739, being 15 Years, and is found to be annually, on an Average, 723 Persons; but there is subjoined, for the greater Certainty, an Account from the Year 1696 to 1739, which proves it to be 748 Persons annually.

The Marriages are in the same Time of 44 Years, on an Average, 224 *per Annum*, which should produce 728 Children, according to the Rule laid down before, namely, 100 Marriages producing 325 Children; but is found to produce from 1690 to 1739 inclusive, to be 648 *per Annum*, on an Average; from whence it is supposed those Two Places contain 25000 Souls.—

The City of *Leyden* comes next in Consideration. It appears by a List for 50 Years, namely, from the Year 1690 to 1739 inclusive, that there have been buried in that City annually, on an Average, 1919 Persons; and married during the same Time, annually, on an Average, 558 Couple, which, agreeable to the former Rule, would produce 1813 Children *per Annum*, but is found to have been 1834 *per Annum*, on a Medium, as aforesaid; the Author concludes consequently, that this City contains 63000 Souls.

The next City in View is *Amsterdam*: It appears by a List, that since the Year 1696 to 1738 inclusive, there have been buried in this City 7323 Persons annually (*Jews* excepted); and there having been married, during the same Time of 43 Years, 2311 Couple annually, produced, according to the Author's Computation, 7134 Children annually, at a Medium; and takes it thence for certain, that *Amsterdam* contains (including 20000 *Jews*, as observed in his First Treatise, Page 21.) 241000 Souls.—The Author proceeds, in the like curious Manner, about other Places; but lest, dwelling too long on this Particular, it might prove tedious in this Place, I will proceed with observing, that the Author gives next—a Table how long 432 Widows lived during a Century, and shews it to have been near 14 Years each on a Medium; and then subjoins a List how many Years married People of different Ages continue to live probably together, before the Bonds of Matrimony, by the Death of either Party, are dissolved; namely,

Those

Those whose Ages together are	40	live between
- - - - -	50	24 and 25 Years.
- - - - -	60	22 and 23.
- - - - -	70	23 and 21.
- - - - -	80	19 and 20.
- - - - -	90	17 and 18.
- - - - -	100	14 and 15.
- - - - -		12 and 13.

And finishes with rejecting the Method of calculating the Quantity of People after the manner of *Vossius*, *Auzout*, *Petty*, and others.—

Third Part.

The *Third* Treatise contains, 1st, A Copy of a Letter wrote by the Author in the Beginning of the Year 1741, to the worthy Mr. *John Eames*, one of the Fellows of this Honourable SOCIETY, and laid before the same soon after, by the said Gentleman.

2^{dly}, A Demonstration, in 29 Tables, that Mr. *Simpson's* Calculation of Lives, as 1 to 26, is a Mistake, and his own Hypothesis, as 1 to 35, right; and proves from Mr. *Maitland's* Observations, Page 541. that Children in *London*, of Two Years old, continue to live, on a Medium, above 37 Years; and observes, that the Learned Dr. *Halley's* Table has it full 38 Years and a half.—

The Author supposes, 3^{dly}, That out of every 100 Children born, Five come dead into the World; and that out of every 100 Children born alive, near 20 die under a Year old; and shews, 4^{thly}, how much Mr. *Simpson* differs in his Calculation;—namely, That full 32, out of 100 Children, die, under a Year old.—

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The rest of this Treatise consists in divers Calculations and Tables of Interest, and the Value of Annuities for Life on different Ages and Interest; and concludes with an Explanation of the same, and the Usefulness thereof.

London, Jan. 27. 1742.

IV. *A Letter from Mr. Joseph Hobson to Mr. Peter Collinson, F. R. S concerning the wonderful Increase of the Seeds of Plants, e. g. of the Upright Mallow.*

Respected Friend,

*Read Jan. 27.
1742-3.*

WHEN thou wast so kind as to oblige me with shewing thy curious Collection of Rarities, amongst other things there was, I think, an Ear of *Guinea Corn*, remarkable, as thou well observedst, for its large Number of Grains: Remembering this, and observing here a large Plant of the common *Upright Mallow*, which I thought must have a large Number of Seeds; I had the Curiosity to count them, and have presumed, on the Slenderness of our Acquaintance, to send thee an Account thereof; and shall be glad, if the Trifle be in any degree acceptable; as follows, *viz.* The Seeds being disposed in Rings, I counted those which were upon the principal Stems, and there were upon

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