

tury, his 'Statistical Account of the British Empire,' had hardly any similar work to refer to during the whole of the eighteenth century.

11.
John Graunt
and Halley.

The exception just referred to was "The Tables of Mortality," which date back to the middle of the sixteenth century, and in a more regular form to 1603. They were analysed by John Graunt, captain, in 1661, in a tract with the title 'Natural and Political Observations upon the Bills of Mortality.'¹ Of Graunt's² work, M. Maurice Block says that the difficulties of preparing such a table at that time were so great that it might wellnigh be considered a performance of genius. The invention once made, improvement

¹ The tract was presented to the Royal Society in 1662, and printed by order of the latter in 1665, the author becoming a fellow at the request of the king. V. John gives a full account of the book, and as much of the author as he could collect from the scanty records of him which exist (*loc. cit.*, pp. 161-178). He was born in 1620, was a man of business, and latterly became connected with the Gresham College and with sundry matters pertaining to the administration of the City. He died in 1674. In 1676 a new, sixth, edition of the tract was published by Sir W. Petty, whom both Halley and Evelyn erroneously referred to as the author.

² 'Statistique,' p. 194. Süßmilch, a century after Graunt, says that the material for the determination of the 'Divine Order' existed in the parish registers since the time of the Reformation. "But who," he exclaims, "made use of it for this purpose before Graunt? The discovery was just as easy as that of America, but the Columbus was

lacking" (quoted by V. John, *loc. cit.*, p. 177). The author, however, who suggested to Süßmilch the researches which led to the celebrated 'Divine Order,' was not John Graunt, but Dr William Derham (1657-1735), an eminent divine and natural philosopher, who published in 1713 his 'Physico-Theology; or a Demonstration of the Being and Attributes of God from His Works of Creation,' a book which ran through six editions in ten years, being translated into French and several times into German. This book contained, as Süßmilch himself says, besides numerous notes, a collection of the observations of other English authors on the lists of births, deaths, and marriages. On following up the clue given by it he arrived ultimately at Graunt and Petty, of whom the former had, as he says, broken the ice, whereas Petty had mainly discussed the influence of the changes of population in politics (V. John, 'Statistik,' p. 243).