From late observations I am led to conclude, that injections are in general unnecessary; that when the distemper is early discovered, no more is required than a proper opening into the horn, keeping it sufficiently clear for the admission of fresh air, the removal of the compression, and the discharge of floating matter. But when the distemper has communicated its effects to the brain, so as to produce a high degree of inflammation, it is much to be doubted whether any method will succeed.

XII. *Observations on the Longevity of the Inhabitants of Ipswich and Hingham, and Proposals for ascertaining the Value of Estates held for Life, and the Reversion of them. In a Letter from the Rev. Edward Wigglesworth, F. A. A. and Hollisian Professor of Divinity in the University of Cambridge, to the Honourable James Bowdoin, Esq. Pres. A. A. — From the Memoirs of the American Academy of Arts and Sciences, Vol. I. 4to. Boston, 1785.*

AFTER the last meeting of the Academy, the Rev. Mr. Cutler, of Ipswich Hamlet, put into my hands a bill of the births and deaths

deaths in his parish, from September 11, 1771, to September 11, 1781. This bill has been kept with great accuracy; and it serves to shew, so far as a general conclusion can be drawn from the births and deaths in a single parish, that either the climate, or the manner of living on the sea coast of New England, is very favourable to life.

From the situation of Breslaw, and the employment of its inhabitants, Dr. Halley supposes that the deaths in that city are more proper for tracing out the probabilities of the continuance of the human life, in its various stages, than those of any other large city in Europe. His table has accordingly been made the standard for estimating the value of those estates in Great Britain which are held for life.

The Doctor observes, that the people of Breslaw are increased by 1238 births annually. Of those it appears, by Dr. Newman's tables, that 348 die yearly, in the first year of their age; so that about 890 do arrive at a full year's age; and that 193 die in five years, between one and six, complete; so that 692 of the persons born survive six whole years, and but 710 survive five whole years. Hence it follows, that at Breslaw five persons out of twelve that
are

are born, die before they have completed the fifth year of their age; whereas at Ipswich Hamlet, where, in the course of ten years, 331 persons have been born, but 60 died before they had completed the fifth year, that is but 6 in 33; which determines Ipswich Hamlet to be more than twice as favourable as Breslaw for the preservation of life in its first stages. A similar conclusion may be made with respect to the late periods of life; for, by Dr. Halley's table, out of 1000 persons who die annually at Breslaw, but 34 survive 80 years complete; whereas at Ipswich Hamlet, out of 164 persons who have died in ten years, 21 persons have survived 80 years complete. At the former place, 1 in about 30; at the latter, 1 in about 8 arrive at this great age.

Mr. Lincoln, eldest son of the Hon. Major-general Lincoln, has been so kind as to favour me with a copy of the Rev. Mr. Gay's bills of the baptisms, marriages, and burials, in the first parish in Hingham, from 1726 to 1779, inclusive. This aged and venerable gentleman has been exceedingly accurate in keeping those bills. The age of every person who has died in his parish for fifty four years is set down in the order of the deaths. This bill will be very serviceable

viceable in computing a table of the probabilities of the continuance of life in New England, possibly more so than any others that can be obtained.

This bill I have reduced to the respective years of the human life, and by this means have determined the particular number that have died in each age. From the reduction it appears, that Hingham, as well as Ipswich, is more favourable to longevity than Breslaw, the British standard of life. At the first parish in Hingham, in a period of fifty-four years, 2247 persons have been born; there have been 521 marriages, and 1113 deaths. Of those, 168 have died in the first year, and 404 under five years complete. Out of 1113 persons who have died in fifty-four years in this parish, 84 persons have survived 80 years complete; whereas at Breslaw only 34 out of 1000 survived that age.

These speculations are not designed as a mere amusement: they are intended for a valuable purpose in civil life. The value of those estates which are held for life, and the reversion of them, can only be determined by knowing the probability which there is that their respective holders will live for a longer or shorter term

term of years. Those probabilities are different in different periods of life. The present value of two estates held in dower, whose annual incomes are equal, may be very different: for instance, a widow of thirty years of age has an equal chance of living, according to Dr. Halley's table, about twenty-eight years; whereas one of fifty years has only an equal chance of living seventeen years. The present value, therefore, of the estates held by them respectively, as well as the value of their reversion, though their annual incomes should be equal, are very different. There has as yet been no certain rule established for estimating the value of such estates. Whenever a widow has compounded with the heirs of an estate for a sum of money in lieu of her dower, the composition has been made at random, and not on any fixed principles that have determined it to be equitable.

From the comparison made above, it is evident that the present value of estates among us, held for life, and the value of the reversion of such estates, cannot be traced with accuracy from the European tables. If ever it should be effected, tables must be constructed among ourselves; and this can only be done by keeping regular

regular bills of mortality, comparing them together, and making proper deductions from their joint result.

Cambridge,

January 28, 1782.

XIII. *Observations on the Effects of Magistery of Bismuth, given internally, as an Antispasmodic.* By Lewis Odier, M. D. Physician at Geneva, Honorary Member, and formerly one of the annual Presidents, of the Medical Society of Edinburgh.—Vide *Journal de Medecine. Chirurgie, Pharmacie, &c.* Tome LXVII. 8vo. Paris, 1786.

WE have here a farther account of the new remedy mentioned in our last volume*. The disease in which this medicine is said to be particularly efficacious is a painful affection, or cramp, as Dr. Odier calls it, of the stomach, which comes on after meals, and which he supposes to be owing to a morbid irritability of that organ. In one instance of a complaint of this sort, which had continued

* Vol. VI. page 406.