

as rapidly becoming extinct. In some modern countries, the *noblesse* of the second order is kept up only by the multiplication of letters patent of creation. Thus, in some of the provinces of Holland, there does not exist a single family of those formerly inscribed on the registers of the equestrian order. At Berne, at the end of the last century, there remained only one half of the noble families who attained a permanent seat in the councils of the state during the 16th century. Almost all the great historical families in all countries have become extinct.

In England, it appears from two papers by Jno. T. R. Edmonds published in the *Lancet* (10th Feb. 1838 and 9th March 1839), that in the year 1834, there were only 74 titles in the English peerage which had endured more than four generations, or more than 133 years; and of these only 13 had descended in a direct line for as many as six generations. Of this small number two (Huntly and Essex) have since passed into collateral branches by the death of their holders, and three others will most probably do so upon the decease of the present peers. On comparing the mortality among the ancient peerages with that among the more modern, it was found that at ages under 40, the mortality of the total occupants of the ancient titles is considerably greater than that of the occupants of modern titles. Some improvement, however, has taken place in this respect during the last century, as the mortality of occupants of ancient titles during the last four generations have been less than that of their predecessors. —*Quarterly Journal of the Statistical Society of London*, Jan. 1840.

53. *Excess of male births among the Jews.*—In Hamburg the whole number of living births from 1826 to 1837 inclusive, among Christians were boys 52,590, and girls 24,197, being in the proportion of 100 to 105.76. In the same city and during the same period the living births among the Jews were boys 1359, girls 1190, being a proportion of 100 to 114.81.

In Prussia on an average of fifteen years from 1820 to 1834, the proportion of female to male births among the whole population, including Jews was 100: 105.97, and among the Jews alone 100: 111.21.—*Ibid.* July, 1839.

54. *Mortality of Small-Pox after Vaccination.*—According to Dr. Heim, there occurred in Wirtemberg between the years 1831 and 1836, 1055 cases of small pox after vaccination, of which 75 proved fatal, being at the rate of 7 per cent. Dr. Gregory states that there were admitted into the Small pox Hospital of London between 1835 and 1839, 748 cases of small pox after vaccination, of which 53 proved fatal, being the exact same rate of 7 per cent. This can hardly be an accidental occurrence, the number being too large to admit of such a supposition.—*London Medical Gazette*, June 26, 1840.

## ANIMAL CHEMISTRY.

55. *Medico-Chemical history of Milk.* By Dr. G. BIRD.—Milk is a white opaque fluid, possessing a bland, sweetish taste, secreted by certain glands in Mammalia, and designed for the nourishment of their offspring.

The specific gravity of cow's milk, which may be assumed as the type of the different varieties of this secretion, is about 1.030. This, it is obvious, is far from being constant, as it must necessarily vary with the amount of solid matters present, and which depend upon the health, vigour, age and nourishment of the animal, as well as on the time that has elapsed since parturition, and other causes.

Under the microscope, myriads of extremely minute globules are seen floating in milk; these, on account of their extreme minuteness, appear black at their edges, and with a magnifying power of 100, the largest of them does not exceed in diameter, according to Raspail, .00039 inches. On the addition of a drop of solution of potass, the globules are seen to vanish, and a limpid fluid is left.