from all causes. Between 5 and 15, the ratio of deaths from small-pox was more than three times as great as the ratio from "all causes", as, out of each 1,000 deaths from small-pox there were 208, and only 62 per 1,000 from "all causes". At 15-25 and 25-45, there were respectively 208 and 177 per 1,000 deaths from this disease; whilst from "all causes" the ratios were 57 and 130. Above 45, small-pox was less fatal in proportion to other diseases, as only 58 out of each 1,000 deaths from small-pox occurred in persons who were 45 years or older, whilst 344 deaths out of each 1,000 from "all causes" were registered amongst persons aged 45 and upwards. I certainly was not prepared to find that so large a proportion as 35 per cent. of all the deaths from small-pox happened in children under five years old; which indeed shows either that vaccination is not properly performed, or else that it is not done at all on a considerable proportion of the population. A comparison between the death-rates at different ages from measles and scarlatina points rather to imperfect vaccination than to non-vaccination as the causes of the large early mortality. We find that only 8 per 1,000 of the deaths from measles happened amongst persons above 15, and 992 amongst those who were below that age; whilst there were only 38 per 1,000 deaths from scarlet fever in persons above, and 962 in those below 15 years. On the other hand, there were no fewer than 442 in each 1,000 deaths from small-pox amongst persons above 15, against 558 in those who were below that age. These figures prove, I think, that the protection by vaccination is nothing like so perfect as that afforded by an attack of small-pox, otherwise the death-rate above 15 would have corresponded more closely with those of the other eruptive fevers. The table also shows that the death-rate from measles in children under 5 years old is more than double the proportion of deaths from "all causes", as 920 deaths from measles out of each 1,000 died under that age, against 407 per 1,000 from all causes. The most fatal age for measles is between 1 and 2 years, as no fewer than 376 per 1,000 deaths from this disease were registered in children who were above 1 and below 2 years of age. There were 200 under 1 year, 190 between 2 and 3, 101 between 3 and 4, 53 between 4 and 5, and 72 only between 5 and 15 years of age.

These data are rather important as regards a question sometimes asked by anxious mothers, viz., What are the chances that a child will have the measles? By referring to the tables, we have some information to guide us. It is certainly to be regretted that a corresponding paper has not been written on the ages at which attacks from the diseases occur, as we could then have ascertained whether or not the mortality at these early ages arise from the severity or the frequency of the attacks.

The ages at death from scarlet fever differ materially from those of measles and small-pox. During the first year of life, only 65 out of each 1,000 deaths occurred, against 200 from measles and 149 from small-pox. In the next year of life, between 1 and 2 years of age, it is more fatal, as 147 deaths were registered in each 1,000 from scarlet fever; but, between 2 and 3, this disease produced its largest mortality; viz., 165 per 1,000, and the next largest between 3 and 4 years of age; viz., 149 per 1,000. Between 4 and 5 years, the mortality was at the rate of 120 per 1,000, making a total of 646 per 1,000 under 5 years of age; between 5 and 15 years of age, the number of deaths from scarlet fever was very large; viz., 316 per 1,000, against 208 from small-pox, 72 from measles, and only 62 per 1,000 deaths from all causes. Above 15 years of age, the number of deaths from scarlet fever are comparatively few, as only 38 deaths per 1,000 from this disease were registered at these ages, against 531 per 1,000 from all causes.

I have appended the number of living at each age in 1,000 inhabitants of England for comparison with the mortality at each age. We see that there were 135 children under 5 years of age alive in each 1,000 persons of all ages, and that there were consequently 865 persons per 1,000 alive at all ages above 5 years old, or nearly six and a half times as many. It is, therefore, evident that the 350 deaths which occurred from small-pox, the 920 from measles, and the 646 from scarlet fever out of each 1,000 deaths from these causes, took place in less than one-sixth part of the whole population. As so large a proportion of persons died from scarlet fever between 5 and 15 years of age, I calculated the numbers at 5-10 and 10-15, and find that 26.0 per cent. occurred at the former, and only 5.6 per cent. at the latter. It is, of course, impossible to ascertain how many persons per cent. have suffered during their lifetime from measles and scarlet fever, and who have been vaccinated or suffered from small-pox; but it would be very interesting to obtain some statistics in the matter. At present, we are accustomed to say that such a person has had scarlet fever, small-pox, or measles, and is not likely to have it again; but, as regards measles especially, the immense proportion of deaths under 5 years of age points to a diminishing liability to the disease as age increases, as well

as to an immunity acquired by an attack in childhood. The extremely small mortality from scarlet fever in persons above 15 years of age probably points in the same direction, although my experience is certainly in favour of a larger proportion of the population under 15 having suffered from scarlet fever than from measles. Be that as it may, the age of attaining comparative immunity from an attack of measles, either by the protection afforded by a previous attack, or from age, appears to be 5 years, whilst from scarlet fever it is about 15, and small-pox about 40 years of age. If the table should impress forcibly on the medical mind these facts, that, after 5 years of age, only a very small proportion of deaths take place from measles; that less than 10 per cent. of the deaths from scarlet fever occur after 10 years of age; whilst similar immunity from small-pox is not reached until about 40 years of age,—this brief paper will not have been written in vain.

ON FRACTURE OF THE NASAL BONES : A CLINICAL NOTE.

By SAMPSON GAMGEE, F.R.S.E.,
Surgeon to the Queen's Hospital, Birmingham.

My attendance was requested on the 29th August ult., to a gentleman

who, in an assault, had sustained a fracture of the nasal bones just below their union to the frontal. The blow, which had been given on the right side, had bruised the whole cheek, and driven the nose to the left, so as to produce very perceptible deformity, in spite of the care taken to prevent it by appropriate plugging. Pressure with the finger on the left side of the nose readily restored its symmetry; and, with a view to the construction of an apparatus to maintain graduated pressure, I sought the assistance of Messrs. T. P. Salt and Son, our local surgical mechanicians. The annexed woodcut represents the instrument which they devised

and constructed. Its use has proved perfectly satisfactory, and no lateral deviation is now perceptible.

The instrument consists of three parts: viz., a spectacle-frame, from which the glasses have been removed; a nose-saddle, with forehead piece made of gutta serena, accurately modelled to the contour of the parts; and a screw with cushion.* The spectacle-frame is attached to the saddle by a metal loop, in which it moves freely in a horizontal plane, the free ends of the spectacle-frame being fastened at the occiput by a ceinture of ribbon; from the forehead piece, which is a continuation of the saddle, proceeds a padded band, passing over the head, and fixed to the ribbon aforesaid, so as to prevent, in conjunction with the spectacle-frame, both lateral and vertical movement. An oval aperture is cut in the saddle, as shown by the engraving; and a steel spring is fastened to the forehead piece or mask, passing in a direction nearly parallel with the nose, and exerting its force in a line opposite to that which the distortion has taken; through the spring, a screw works, having at its extremity a small padded cushion, so disposed as to press on the fractured bones with any degree of force which the surgeon may think desirable. The arrangement of this instrument allows the pressure to be nicely graduated, and, at the same time, prevents the instrument from being displaced—an accident which will, under other conditions, easily happen.

* In the sketch, the screw is shown on the right side. It was on the left in the particular case for which this instrument was devised.

DR. TRENDLENBURG, known as the inventor of the plan for plunging the trachea in cases of operation on the mouth, has been appointed Professor of Surgery in the University of Rostock; and the vacancy consequently made in the office of director of the surgical department of the hospital at Berlin has been filled by the appointment of Dr. Max Schede of Halle.