From the simple lives and sobriety of the people, medical diseases of a severe nature are uncommon, and, for this reason, it is easier for me to say what there are not, than what there are.

Among a large number of patients, I have only encountered two cases of phthisis, and I think I am able to trace its origin to the subjects of it having suddenly resumed their native costume of a blanket and nothing, after wearing European costume for some time. This leads one to the question as to the desirability of this part of South Africa for consumptive patients. The experience of the just passed summer, with its daily thunderstorms, and consequent dampness of the ground, leads me to consider Basuto Land itself unsuitable for such cases, but I hear Bloemfontein and its neighbourhood extolled on all sides.

Rheumatism of a chronic nature is very common, which may be attributed to the native villages being situated among the rocks and on the sides of mountains. In very many cases, the present generation of Basutos has spent its youth in caves to escape the attacks of their many enemies. The disease appears to yield readily to alkalis. Dysentery and diarrhoea are constantly met with, especially among infants.

The most rapidly fatal among surgical diseases I have encountered is a species of diffuse cellular inflammation, occurring generally in the arm, which appears to arise idiopathically in old people. The symptoms consist of a hard brawny swelling of the hand and forearm which rapidly spreads, and, in about forty-eight hours, proves fatal. The disease does not appear to run on to sloughing, nor have I been able to trace any cause for its appearance, such as a bite from a snake, or poisoned wound. Neither can I give the *post mortem* appearances, on account of the repugnance of the natives to any interference with their dead. Fatty tumours flourish in large numbers; and here the surgeon has a fine field for the employment of his knife. The native doctor is entirely balked in this department, and satisfies himself with numerous small scarifications, with a result which can be easily foreseen. Thanks to the vigorous constitutions of the Basutos, the after-treatment is wonderfully successful; union by direct contiguity or by first intention taking place in almost every case.

I will now proceed to relate two interesting cases which have been under my observation within the last few weeks. Their uncommonness must be my excuse for sending this communication.

CASE I. A Mosuto, aged about forty, presented himself with the history of having received a bullet-wound in the left groin seven years ago in the Dutch war. When he received the shot, he was on horseback, and leaning over the horse's neck, with the hope of shielding himself from the enemy. He had ever since been troubled with a slight discharge from the wound and intense pain on walking in the buttocks, where he felt sure he could occasionally feel the bullet. Nine medicine-men of his country had endeavoured to remove the foreign body, but their attempts did not seem to go further than scarifications of the gluteal region, which was absolutely covered with innumerable small cuts. An European surgeon had also made explorations, without any definite result. On examination, a small opening appeared exactly midway between the symphysis pubis and the anterior superior spinous process of the ilium in front, from which a little pus escaped on pressure, and behind, just level with the posterior superior spinous process, was a prominence such as one might expect to find as the point of exit of a bullet. In this latter, was a small opening which admitted a probe, and as the tissues around were much hardened and thickened, I hoped here to find the bullet encysted. But my probe passed obliquely downwards along a canal into the substance of the glutei muscles; and, as I found it too short, I desisted for a couple of days until I could procure something longer. In the interim, my patient discovered a hard substance, four inches lower down deeply in the muscles. On a second examination, to my delight, I hit upon a hard substance at the depth of about a forefinger and a half, and on cutting directly upon it, by the aid of a bullet-forceps I extracted what must once have been a conical bullet, indented and bent all over. I concluded its wandering course must have been directed in this curious way by the crest of the ilium, which it must have skirted, and have lodged for a time in the superficial position before mentioned, to work its way, gradually, by the force of its own gravity, to the depth where it was finally discovered.

CASE II appears to my mind of a nature not frequently met with, and one which gives the surgeon warning not to be over hasty in his diagnosis, and still less so in performing severe operations. A Basuto woman presented herself with a large tumour of the face, causing her appearance to be even more repugnant than nature had intended. The tumour was extremely hard, and apparently adherent to the bone. The patient stated it had been coming for three years, and caused her considerable pain; latterly, it had much increased in size. It entirely blocked up the right nostril, causing great distension of the cheek of the same side, pushed up the nose, and extended about half way across

the upper lip and along the alveolar process of the upper jaw, the gums being much distended. Two of the incisor teeth were loose, and protruded from their sockets. I considered the growth too low down for it to have any connection with the antrum, and, from the history, I feared the superior maxillary bone would require removal. Being unwilling to undertake so severe an operation without due caution, I ordered the woman to return to her village for a couple of months, and to visit me again. On her second appearance, the tumour had much increased in size, and the pain was worse than ever. The hardness had, however, given place to a distinct feeling of fluctuation, and, having consulted Dr. Cruikshank's *Surgery*, where there is a very similar case of Sir Wm. Fergusson's recorded, I considered my case to be one of dropsy of the antrum. On extracting the canine tooth, a large quantity of coffee-coloured viscid fluid poured away, and with it disappeared our quondam tumour. After a daily probing of the antrum, and the application of pads to restore the original appearance of the features, the patient returned to her friends in a few days, delighted at the loss of her horrible deformity, and wonderstruck at the simplicity of the cure.

AGES AT DEATH FROM THREE ERUPTIVE FEVERS.*

By JOHN W. TRIPE, M.D.,
Medical Officer of Health for Hackney.

THE tables on which this paper are based have been compiled to show what are the ages at which small-pox, measles, and scarlet fever are most fatal, and consequently to furnish information as to the chances of attack from either of these diseases at the ages mentioned in the tables. I have also added the necessary percentages for comparison of the deaths at all ages for the same years as those for which the zymotic deaths have been taken. The deaths from all causes during these years, 1868-72, in all England amounted to 2,516,468; those from small-pox to 48,435, from measles to 47,341, and from scarlet fever to 112,412. The death-rate from measles was, therefore, 188, from small-pox 192, and from scarlet fever (the most fatal) 447 per 10,000 deaths from all causes. It must also be remembered that these years include the greatest epidemic of small-pox which we have had since our modern system of registering deaths was begun, and that, therefore, the death-rate from small-pox, as given above, is in excess of the average of thirty years. I have not included fever, because I am convinced that many deaths are registered as being caused by it which should have been attributed to some other diseases, such as hydrocephalus, cerebritis, etc.

Per Milleage of Deaths at different ages in England, 1868-72.

Ages.	0-1	1-2	2-3	3-4	4-5	Total under 5	5-15	15-25	25-45	45-65	65 and upward.	All ages
Small-pox	149	53	48	49	51	350	208	177	207	54	4	1000
Measles	200	376	190	101	53	920	72	3	1	1	0	1000
Scarlatina	65	147	165	149	120	646	316	22	14	2	0	1000
All causes	246	80	38	25	18	407	62	57	130	148	196	1000
Number living.	29.8	27.2	26.6	25.9	25.5	135	226	184	262	146	47	1000

The deaths from small-pox during the first year of life were much more numerous than I should have expected, and show the necessity for early and efficient vaccination. The proportions of deaths from small-pox at different ages under 5 were as follows: under 1 year, 149; between 1 and 2 years, 53; between 2 and 3 years, 48; between 3 and 4 years, 49; and between 4 and 5 years, 51; making a total of 350 deaths per 1,000 under 5 years of age. Between 5 and 15, there occurred 208 deaths per 1,000; between 15 and 25, 177 deaths; between 25 and 45, 207 deaths; between 45 and 65, 54 deaths; and above 65, only 4 deaths in each 1,000 deaths from small-pox in England. On comparing the mortality from small-pox with that from "all causes", we see that the death-rate during the first year of life is higher from both than in any other, although in a much less proportion from small-pox than from "all causes", and a somewhat similar ratio is obtained for the next year of life. Between 2 and 5 years, the proportion of deaths from small-pox remained nearly the same as for the age of 1 and 2, having been 53 for the second year of life, and 48, 49, and 51 per 1,000 for each of the other years, whilst for deaths from "all causes" the numbers were respectively 80, 38, 25, and 18 per 1,000 deaths. The totals under 5 are 350 per 1,000 from small-pox, and 407

* Read before the Public Medicine Section at the Annual Meeting of the British Medical Association in Edinburgh, August 1875.

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. TRENDELENBURG, 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.