I have been surprised at the way in which the infants stand it. Brophy goes as far as to say that "the shock following the operation is not so great if performed within the first month, as it would be later in childhood." Of this I am by no means sure, however.

That, inasmuch as the maxillæ are closely approximated, the halves of the velum can be stitched together without tension and without the need of interfering with the attachment of the muscles of the soft palate.

That, as the approximated halves of the soft palate can be sutured without interference with the muscles of the palate, the prospects of securing a natural voice are greatly increased.

That, as the maxillæ have been brought together in front, the subsequent operation upon the hare-lip is rendered much easier of performance, and a more artistic result is obtainable.

Great Cumberland-place, W.

NOTE ON THE RESPIRATORY MOVEMENTS IN HEMIPLEGIA.

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IN THE LANCET of 1895¹ and of 1899² Dr. J. Hughlings Jackson pointed out that many cases of hemiplegia gave support to his hypothesis "as to the great differences of the nervous mechanism for the two very different services,

arrangement of a suitable apparatus. This consists of two air tambours which by means of indiarubber tubes are brought into communication with recording tambours, the levers of which inscribe the movements of the thorax upon a revolving cylinder. Each air tambour is held in position on the chest by a leaden tube which is attached to a firm stand. The tubes being flexible each tambour can be placed evenly on the surface of the chest.

The case from which the tracing was taken was that of a man, aged 50 years, suffering from right hemiplegia of six months' standing. He fell one morning in getting out of bed and it was then found that his right side was paralysed. The attack was not attended by loss of consciousness. On admission to the infirmary last October the hemiplegia was well marked; he was unable to stand and when in bed the movements of the right leg were very feeble. The distribution of the paralysis in the right arm differed from the common type, there being slight power to move the fingers and to flex and to extend the elbow but complete paralysis of all movements at the shoulder joint. The right side of the face was affected and the tongue on protrusion deviated towards the paralysed side. There was no anæsthesia; the speech, which was impaired for a time after the attack, was quite natural. On placing the hands in symmetrical positions on the upper part of the chest, the slight excess of movement on the right side during natural breathing was at once noticed. The movement had more amplitude and it began before and came to an end after that on the left side. When, however, the patient took a deep voluntary breath the excess of movement was on the left side. These variations affected also the lateral movements of the chest, as shown by grasping the lower costal regions. The above observations were confirmed by

Respiratory movements in a case of right hemiplegia. R, right side. L, left side. A B and A' B', Normal respiration. B C and B' C', Forced respiration.

organic (respiratory) and animal (voluntary), of the respiratory apparatus." Dr. Jackson observed that in some cases of hemiplegia the uppermost part of the costal region of the thoracic cage moves slightly more on the paralysed side of the body in respiration proper (ordinary breathing) and slightly less on that side in voluntary expansion of the cage (deep or forced inspiration). Taking as an illustration a case of left hemiplegia his explanation of these differences in the movements of the thoracic cage is as follows: "The greater amplitude of movement of the left upper cage in respiration proper is, I suggest, owing to destruction of some fibres from the cortex which are for continuous inhibition of the left respiratory (medulla) centre; the less amplitude of voluntary expansion of that left upper cage is, I suppose, owing to destruction of some motor fibres from the cortex which, evading the respiratory centre, pass direct to certain left anterior horns and by these act on the intercostal muscles."

Without attempting to discuss how far this explanation is correct I wish to bear witness to the accuracy of the clinical observation which appears to have been somewhat overlooked by subsequent writers. During the last few years I have examined a large number of cases of hemiplegia, both recent and old, and in at least 60 per cent. of them the movement of the upper part of the thoracic cage during ordinary breathing was a little greater on the hemiplegic than on the other side of the body. This difference is indicated in the accompanying tracing which was obtained with the help of my house physician, Dr. C. O'Neill, who devoted much time and care to the

my clinical clerks and others before they knew anything about the case. It is, indeed, of importance to obtain observations regarding the thoracic movements in any case of hemiplegia from persons who do not know the nature of the patient's ailment and whose judgment, therefore, is an unbiased one.

Manchester.

A CASE OF ARTERIAL THROMBOSIS OF GONORRHOEAL ORIGIN.

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It has been clearly established by a number of exact observations that an acute gonorrhœal urethritis may be the starting point for a grave septicæmia which may be purely gonococcal or mixed or due to some concomitant organism and that as complications of such systemic infection certain lesions of the vascular system not infrequently obtain. Among these endocarditis and myocarditis are the more usual, thrombo-phlebitis has been noted but is relatively uncommon, whilst arterial thrombosis in such a sequence has, so far as I can ascertain, not hitherto been described, yet that it may occur is apparent from the following example which came under my cognisance whilst pathologist to the Manchester Royal Infirmary.

A man, aged 20 years, was admitted to the Manchester Royal Infirmary, under the care of Mr. W. P. Montgomery,

¹ THE LANCET, Feb. 2nd (p. 274), 16th (p. 394), and 23rd, 1895 (p. 476).

² THE LANCET, Jan. 14th, 1899, p. 79.