

when the equinus is to be corrected, this backward inclination of the upright is to be lessened from time to time, till the vertical is reached, as in Fig. 10, or till the upright has an inclination forward, allowing the corporal weight to fall more and more on the anterior part of the sole of the foot, and gradually lengthen the tendo achillis. The vertical upright, Fig. 10, is to be applied at once to patients in whom the deformity has been corrected before walking begins.

We will now pass to a consideration of the other end of the brace, the foot-piece, which is to be made of sheet steel, ranging from 18 gage, for a child learning to walk, to 13 gage for an adult. It has the usual tread, L, Fig. 13, and riser, M, Fig. 10. The heel-cup is formed by a piece of webbing, N, Fig. 13, passing behind the heel, from the lower part of the upright to a spur, O, Fig. 13, which projects upward from the back part of the outer border of the tread. Viewing the apparatus

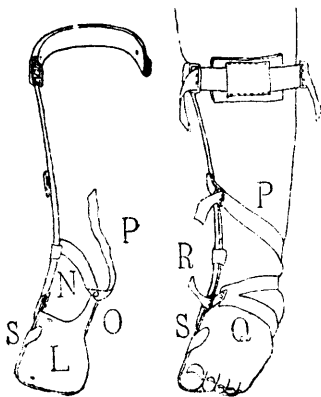


Fig. 13.

Fig. 14.

again as a lever, for the forcible reduction of varus in a previously neglected case, counter-pressure is made along the inner border of the foot, and on the upper part of the inner side of the leg while pressure is made by one strap or more than one, riveted and buckled to the foot-piece and the upright. But one strap is shown, P, in Figs. 13 and 14. This will be sufficient in the case of a child whose varus has been corrected before walking begins, but in a previously neglected patient, in whom the varus has yet to be reduced while the child is active on his feet, two, three, or more straps may be added, as shown in Fig. 9, partly encircling the foot, ankle and leg, the positions of the buckles and the straps being where they will assist most efficiently in opposing the varus, and holding the foot in the best position to receive the weight of the body. These parts of the apparatus may be shifted many times, with advantage, in the treatment of a given case of unusual difficulty, and, in addition, a most efficient agent for applying continuous pressure is

found in a strip of adhesive plaster, Q, Fig. 14, sewed to a piece of webbing, R, the plaster partly encircling the foot and ankle, with a single tail, or two tails, as may be required, and the webbing being drawn tightly and buckled to the inner side of the riser. This device does more than simply to increase the amount of pressure; it also keeps the heel down on the tread of the foot-piece, and, more important still, it gives the foot a rotation outward, and thus directs the sole of the foot forcibly toward the ground, in the best position for making the weight of the body a corrective instead of a deforming force. The riser of the foot piece may also, in previously neglected and difficult cases, carry an ear, S, Figs. 9, 13 and 14,

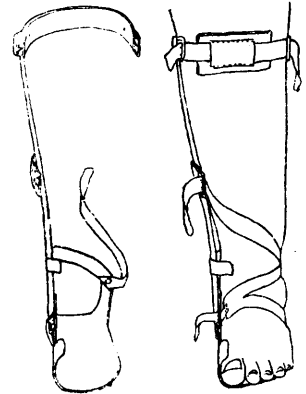


Fig 15.

Fig. 16.

made of sheet brass, which is to be bent downward over the first metatarso-phalangeal joint, to prevent the inner border of the foot from overriding the edge of the riser. The foot-piece is to be lined with adhesive plaster, in several thicknesses if necessary, to prevent rust, and with a piece of leather fastened to the tread and spur with copper rivets, as shown in Fig. 10. In practice the details demand as much attention as the principles of treatment. The brace is to be applied over the stocking, the strap, R, passing through a hole cut in the stocking, and is hidden by the patient's trousers and shoe.

We will now consider the upright of the brace. It is a flat, tapering bar of mild steel, and when first applied to a previously neglected case, such as is shown in Fig. 12, should have a curve resembling that of the varus foot. The bar, though sharply curved, as in Fig. 13, should, however, be somewhat straighter than the foot, when the latter is forced manually into its best position. The multiple straps, shown in Fig. 9, should then be buckled and tightened daily till the continuous leverage has partly reduced the varus. The upright bar should then be somewhat straightened, and another point of improvement be gained, the patient in the meantime following his ordinary