

thus produced it is rendered permanent by a contraction of the plantar fascia.

The condition existing in this case may therefore be satisfactorily explained by having been brought about primarily by a paralysis of the interossei muscles along with that of the oblique adductor and short flexor of the great toe, a subsequent contraction of the plantar fascia, rendering it impossible to correct the deformity, by simple manipulation.

The material of which the cast is made is printers' "roll," very similar in composition to that suggested by Dr. Cathcart of Edinburgh. This has been called cathcartine and is made in the following manner: "Soak glue, or what is preferable, ordinary French gelatine, in water until it has been thoroughly softened. Allow it to lie exposed so that the water may evaporate to such an extent that the gelatine becomes pliable but not soft. Melt this in a water bath, and add to it as much glycerine by measure as there was dry gelatine by weight. It is also advantageous to add to the glycerine about one to forty carbolic acid. Mix them thoroughly, and stir in the finest ground oxide of zinc suspended in a little glycerine until the whole mass assumes an opaque white appearance."

Dr. Cameron: "I cannot give all the previous history of the patient, but there is no record of diphtheria, or of scarlatina. The treatment has been Electricity and Barwell's Elastic Muscle. To me, Dr. Primrose's explanation seems very reasonable. The term *Pes Cavus* is misleading. I do not think that there is any such condition. The case is really one of *talipes equino plantaris varus*. *Talipes arcuatus* is a better name. Simple division of the fascia and superficial muscles will cure. It is noteworthy that the other foot is now getting into the same condition."

Dr. Peters pointed out that the tonic contraction of the long flexors and extensors of the toes tended not only to maintain, but to aggravate the condition brought about by the paralysis or atrophy of the interossei. By such chronic contraction the proximal ends of the first phalanges become subluxated upon the heads of the metatarsal bones. These are in this way thrust down into the sole of the foot in such a manner as to increase its arch. The plantar fascia which is thus relaxed in process of time becomes short-

ened, and changes may also subsequently take place in the ligaments and articulations. In some cases of club foot, all the soft parts except the ligaments may be cut away without correcting the deformity of the foot. Hence in the treatment of this deformity it may be necessary to divide not only the plantar fascia and the contracted muscles, but also the long calaneo-cuboid and some other ligaments.

Dr. Primrose in answer to Dr. Peters said that the action of the flexor digitorum muscle has not so much to do with producing the deformity as his remarks might lead one to infer. It is the common extensor muscle and the extensor longus pollicis which have the chief action; if the interossei, the adductor hallucis, and the flexor brevis hallucis be paralysed then the extensor muscles are no longer retained against the dorsal aspect of the proximal phalanges and they would act from the proximal extremity of the distal phalanx as their fixed points below. The result of their action would be to draw the terminal phalanx upwards and backwards, producing thereby extension at the metacarpophalangeal joint and extension at the interphalangeal joints. The flexor tendon, on the other hand, is firmly bound down on the under aspect of the proximal phalanx, in a fibrous sheath and contraction of this muscle would tend rather to prevent hyper-extension at the metatarso-phalangeal joint. There is not necessarily any alteration in the shape of the bones of the foot although a partial dislocation may occur at the metacarpophalangeal joint.

Book Notices.

A Guide to the Diseases of Children. By Jas. Frederic Goodhart, M.D., F.R.C.P., Physician to Guy's Hospital, and Lecturer in Pathology in its Medical School, etc. Re-arranged, revised and edited by Louis Starr, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania, etc. Second American from the third English edition; Philadelphia: P. Blakiston, Son & Co.

This is an admirable and delightful book. It is now pretty generally recognized that Dr. Goodhart's descriptions of diseases of children are remarkably clear and forcible, and, as has been remarked by others, closely resemble actual