

These all lie upon the same plane and constitute an exceedingly thin but distinct muscular stratum.

The adductor hallucis arises from the plantar fascia and the ligaments over the bases of the second and third metatarsal bones. Narrowing as it passes downwards and inwards, it is inserted into the outer aspect of the base of the first phalanx of the hallux along with the tibial head of the flexor brevis hallucis.

The adductor minimi digiti is a slender and thin muscle which takes origin from the fibrous structures in relation to the base of the fourth metatarsal bone, and also from a short tendinous intersection which separates it from the muscular slip to the annularis which lies along its inner margin. It is inserted into the tibial side of the base of the first phalanx of the minimus.

The adductor medii et indicis is a broad, quadrate, continuous sheet of muscular fibres placed over the second and third metatarsal bones and the muscles in connection with them. It springs from the proximal two-thirds of a strong tendinous raphe, which stretches from the base of the fourth metatarsal to the base of the first phalanx of the annularis. It likewise derives fibres from the ligaments in relation to the bases of the second and third metatarsal bones. From this wide origin the fibres are directed towards the roots of the middle and inner digits, and as they approach these they diverge slightly so that the inner fibres pass to be inserted into the tibial aspect of the base of the proximal phalanx of the index, whilst the outer fibres go to their insertion into the fibular side of the corresponding phalanx of the medius. At the roots of these toes a few fibres pass transversely, and form a slightly arched bundle which runs directly from one digit to the other.

This muscle is undoubtedly modified in accordance with the syndactyle nature of the digits into which it is inserted, and its actions are in consequence varied.

The fourth muscular slip which belongs to this layer arises from the fibular side of the fibrous raphe, and from a tendinous intersection which separates it from the adductor minimi digiti. It is inserted into the outer side of the first phalanx of the annularis, and must therefore exercise an abducting influence upon this toe. It is difficult to account for the presence of such a distinct abductor in this layer.<sup>1</sup> In all probability, however, it is a portion of the adductor minimi digiti which has shifted its insertion to the adjacent digit. In support of this view we may mention that where there is a median raphe it is the custom for the adductor of the minimus to arise from the greater or indeed the entire extent of its fibular margin (*i.e.*, *Thylacine*, *Dasyurus*, *Cuscus*, *Vulpine Phalanger*), whereas in this case it is shut out from the raphe by the muscular slip in question.

*Intermediate layer* (figs. 2, 3,  $f^1$  to  $f^5$ ).—The usual five muscles are found entering into the composition of this layer. With the exception of the flexor brevis minimi digiti each of these muscles consists of two slips.

<sup>1</sup> By referring to Plate II., fig. 3, a somewhat similar slip will be seen in the manus of the *Cuscus* in connection with the index digit.