

dorsum of the foot.<sup>1</sup> Ruge accounts for this peculiarity by looking upon the second and first interosseous muscles in these cases as being compound muscles,—receiving accessory heads from the extensor brevis digitorum. The nerve filaments which go to them, from the anterior tibial, are therefore for the supply of these extraneous fibres.<sup>2</sup>

### CONCLUSIONS REGARDING THE DISPOSITIONS OF THE INTRINSIC MUSCLES.

I. That the typical arrangement of the intrinsic muscles of the pes is the same as in the hand, and that this arrangement is seen to best advantage in the feet of certain of the Marsupialia. In these animals the muscles are disposed in three layers:—

1. A plantar layer of adductores.
2. An intermediate layer of flexores breves.
3. A dorsal layer of abductores.<sup>3</sup>

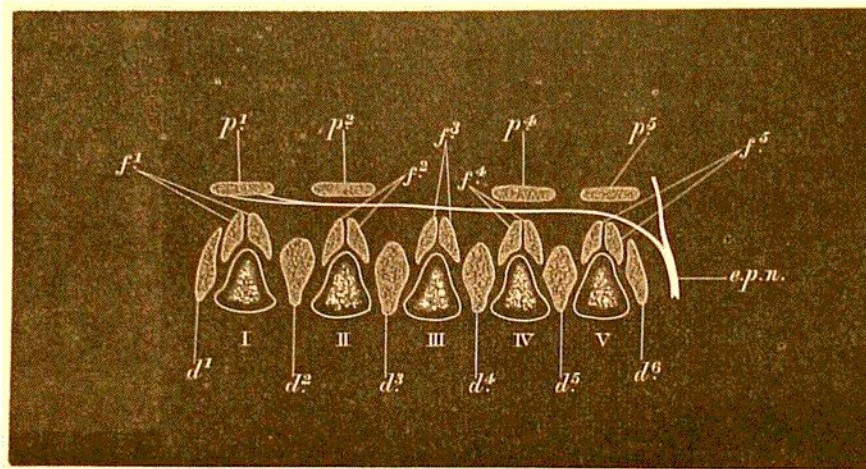


FIG. 1. Schematic view of a section through the metatarsus of a typical foot.

(I. to V.) Metatarsal bones. ( $p^1$  to  $p^5$ ) Plantar layer of adductores. ( $f^1$  to  $f^5$ ) Intermediate layer of flexores breves. ( $d^1$  to  $d^6$ ) Dorsal layer of abductores. (*e.p.n.*) External plantar nerve.

Deviations from this typical trilaminar disposition may take place—(a) by subdivision of certain of the members of one or other of the layers, (b) by fusion of certain of the elements of the different strata, or (c) by suppression or non-development of some of the muscles.

The first of these deviations is to be found in a few Marsupial animals, in which a tendency is exhibited to the development of a fourth layer of muscles by the splitting

<sup>1</sup> Rudinger Die Gelenknerven des Menschlichen Körpers, Erlangen, 1857. Cunningham, Journal of Anatomy and Physiology, vol. xiii.

<sup>2</sup> *Loc. cit.*, p. 50.

<sup>3</sup> Professor Humphry, in his Memoir upon the Myology of the *Orycteropus capensis* (Jour. of Anat. and Phys., May 1868), alludes in a footnote to this typical arrangement, and singles out the Rabbit as affording a good example. In this animal, however, the dorsal and intermediate muscles have undergone fusion, and it does not exhibit the trilaminar disposition so well as the marsupial hand or foot.