

the flexores breves wandering to the dorsum of the foot and acting as extensors; and in some marsupial and monotrematous animals a new and opposite action added to the abductors, viz., that of approximation.

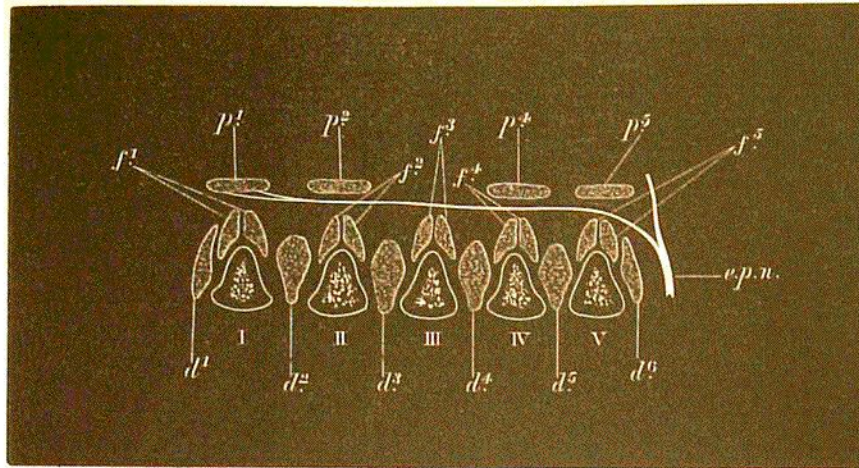


FIG. 3. Schematic view of a transverse section through the metatarsus of a typical foot.

(p^1 to p^5) Adductores. (f^1 to f^5) Flexores breves. (d^1 to d^6) Abductores. (c.p.n.) External plantar nerve.

The flexor brevis indicis is completely lost in the human foot—not a trace of it is to be found.

General Remarks.

Plantar layer.—To Bischoff and Halford is due the credit of being the first to describe an adducting muscular apparatus homologically distinct from the other intrinsic muscles of the hand and foot. Bischoff's observations were confined to the Apes, and he did not include as a part of this apparatus the adductor hallucis. It is true that many writers had previously noted the presence of adducting muscles, but all had failed to recognise their true import. Professor Halford not only gives an account of the muscles composing this layer in the foot of the Macacus, but he applies to them the distinctive name of "contrahentes digitorum"—a name which Bischoff adopts. In the abstract of this portion of my report which I published in the *Journal of Anatomy and Physiology* in 1878, I described these muscles in a large number of the lower mammals, and placed the adductor hallucis amongst them. To the group thus constituted I gave the name of "plantar layer of adductors." In this paper, however, I fell into the error of considering the plantar interossei of the human foot as members of the layer. A few months later, Ruge's article upon the *Deep Muscles of the Sole of the Foot* appeared, in which he also recognised the true position of the adductor hallucis by placing it amongst the contrahentes or adductors. Further, he pointed out, by means of the deep division of the external plantar nerve, that the adductores digitorum