

(2) two divisions of the abductor minimi digiti; (3) the abductor ossis metatarsi minimi digiti; (4) the dorsal interossei.

The abductor hallucis (fig. 5,  $d^1$ ) is a strong muscle, which arises from the cartilage of the sole, and a sesamoid bone which glides upon the plantar surface of the scaphoid. Its chief insertion is by fleshy fibres into the tibial sesamoid bone of the hallux, but it is also prolonged onwards by a slender tendon to the tibial side of the distal phalanx. By a third slip it gains an insertion into the extensor tendon.

The three abductors of the little toe (fig. 5,  $d^6$   $d^{6'}$   $d^{6''}$ ) arise side by side from the outer and under surface of the tuber of the os calcis. They are inserted into the base of the metatarsal bone, into the outer sesamoid bone, and into the extensor tendon. The abducting apparatus on the outer aspect of the foot of the *Cuscus*, therefore, is more differentiated than in any of the preceding animals. In the *Thylacine*, a separate slip for the sesamoid is only an occasional occurrence; it is always very feeble, and springs from the base of the metatarsal. In *Dasyurus* it seems to be constant, and it arises further back in the foot. In *Cuscus* it reaches its full development, and arises from the os calcis with its neighbours.

The dorsal interossei are placed more in the sole than the corresponding muscles of the hand. They are not bipenniform, and they show a slight tendency to fuse with the flexores breves.

The first or abductor indicis (fig. 6,  $d^2$ ) is the most powerful of the series. It arises by two heads—(*a*) from the internal cuneiform (*b*) from the base of the first metatarsal, and it is inserted into the tibial side of the base of the proximal phalanx of the index, and also into the extensor tendon. The index and medius, as we have seen, have no independent power of movement as they are enclosed within the same integumental covering; they constitute, in fact, from a functional point of view, one digit. In consequence of this, the second dorsal interosseous muscle is so completely amalgamated with the inner head of the flexor brevis medii that its presence cannot be detected as an independent muscle.<sup>1</sup> The first dorsal interosseous muscle serves as the abductor of both digits.

The third and fourth dorsal interossei (fig. 6,  $d^4$ ,  $d^{4'}$ — $d^5$ ,  $d^{5'}$ ) are arranged in a very peculiar and interesting manner. Each consists of two slips. In the case of the third, one of these ( $d^4$ ) arises from the base of the third metatarsal, and is inserted into the outer aspect of the base of the proximal phalanx of the medius, whilst the other ( $d^{4'}$ ) takes origin on the dorsum of the foot by two delicate heads which spring from the adjacent bases of the third and fourth metatarsal bones. Near the roots of the toes this muscular slip ends in a tendon which bifurcates, and in this manner is inserted into the adjacent sides of the bases of the proximal phalanges of the medius and annularis. The arrangement of the fourth dorsal interosseous muscle is very similar. One slip ( $d^5$ ) takes

<sup>1</sup> In fig. 6, Plate VI.,  $d^3$  represents the deeper part of the inner head of the flexor brevis medii—the portion supposed to represent the second dorsal interosseus—artificially separated and left *in situ*.