bones are provided with pulley-like articular surfaces adapted to the basal extremities of the first row of phalanges.

The upper end of the common metatarsal mass is provided with two articular facets. Of these the inner is oval, the outer quadrilateral in form. They articulate with the condyles of the tibia. The posterior border of the upper extremity of the bone behind these surfaces develops two well-marked calcaneal tubercles between which is a shallow groove in which the tendons of the flexor muscles of the toes are accommodated.

I have observed the following distinctive features in the metatarsus of different genera of Penguins.

In every species of *Eudyptes* the bone agrees with the description just given of that of *Eudyptes chrysocome* from Tristan d'Acunha. In all the members of this genus which I have examined, the proximal ends of the intermetatarsal grooves are perforated above, so that there are two foramina, one between the second and third, and the other between the third and fourth metatarsal bones, both of which appear on the posterior surface of the bone. In all of them there are two calcaneal tubercles, and in all of them the lower end of the second diverges from that of the third metatarsal bone.

In *Aptenodytes* (Pl. VII. fig. 14), as in *Eudyptes*, there are two intermetatarsal foramina, and two calcaneal tubercles, but the lower end of the second does not diverge from that of the third metatarsal bone to the same extent as in *Eudyptes*, these two bones being nearly parallel with one another from end to end. Consequently, in *Aptenodytes* the metatarsus is of nearly the same breadth at the upper and lower ends, whereas in *Eudyptes* the lower exceeds the upper end in breadth.

Pygosceles (Pl. VII. fig. 13) closely resembles *Aptenodytes* in the parallelism of the three metatarsal bones, but differs from that genus as well as from *Eudyptes*, inasmuch as the intermetatarsal grooves are much less pronounced, and the separate elements of the compound metatarsus are more completely anchylosed in it than in these genera. In *Pygosceles* there are two intermetatarsal foramina, and in *Pygosceles tæniatus*, as in every species examined, there are two calcaneal tubercles.

Spheniscus (Pl. VII. fig. 12), on the other hand, differs from all the other genera, inasmuch as in every species of that genus the separate metatarsal bones are less completely fused together. In the members of this the intermetatarsal grooves are much more forcibly pronounced than in those of any other genus, and form deep hollows, which nearly separate the component elements of the metatarsus from one another. In *Spheniscus*, moreover, the separate metatarsal bones are relatively considerably longer and more slender than in any other genus. They are also more nearly parallel with one another from end to end than in *Eudyptes*, but less so than in either *Pygosceles* or *Aptenodytes*. In every species of *Spheniscus* there are two calcaneal tubercles.

In *Spheniscus demersus*, *Spheniscus mendiculus*, and *Spheniscus minor* the external intermetatarsal foramen is alone pervious. In these species the internal foramen is clearly