

The scutellation of the tarsi presents different characters in the Procellariidæ and Oceanitidæ respectively. In the former, in all the forms, the legs, which are often much compressed below the lower limit of feathering, are covered pretty uniformly by small scutellæ of hexagonal shape (*vide* Pl. I. fig. 5, *a*). In the Oceanitidæ, on the other hand, though the back and more or less of the lateral aspects of the leg are so covered, the front of the leg is either, as in the genera *Oceanites* (Pl. I. fig. 1, *a*) and *Fregatta* (Pl. I. fig. 4, *a*), "ocreate," being covered for nearly all its length by a single long scute, or, as in *Garrodia* and *Pelagodroma* (figs. 2, *a*; 3, *a*), has a series of strong, well-marked, obliquely transverse scutellæ, extending on to the external and internal faces of the leg for some distance.

The hallux in the Tubinares is always extremely small, and in the genus *Pelecanoïdes* quite absent. When present it consists only of a single joint (*vide infra*, p. 53, and Pl. VI. fig. 14), which, even when best developed, is very small and covered by a short, nearly straight, spur-like claw, which projects externally, some little way above the level of the other digits, and, being very small, may easily be passed over. In the Oceanitidæ this nail is extremely minute, considerably more so than in the Procellariidæ of similar size, but is always present¹ and very straight and spur-like. In most of the Procellariidæ it is larger and more curved: it is best developed proportionately, perhaps, in *Pagodroma*.

In the Albatrosses the hind-toe is so minute that these birds are usually described as being three-toed, but this is not really quite correct. In *Phæbetria* the hallux externally only just appears, being represented merely by a slight pimple-like elevation, with a very minute claw. On dissecting away the skin, the pimple is seen to be connected with two minute bony nodules, the basal one, which represents the metatarsal, more globular, the apical one more pointed and covered by the minute claw. They are only connected by connective and fibrous tissue to the tarso-metatarsus,² and are separated from each other by a considerable interspace, the whole having a total extent of only 3 mm. (*vide* fig. 2, *a*).



FIG. 2.—Rudimentary Hallux of the Albatrosses, of the natural size, except *a*.

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| <i>a. Phæbetria fuliginosa</i> , showing the two ossicles, connected together by fibrous tissue, the distal one being covered by a minute claw, which appears | outside the skin (represented in section). |
| <i>b. Diomedea exulans</i> . | |
| <i>c. Diomedea brachyura</i> . | |
| <i>d. Thalassiarche culminata</i> . | |

In *Thalassiarche (culminata)* and *Diomedea (brachyura and exulans)* this hallux is still more rudimentary, and there is not a trace of a nail outside. Still, on careful

¹ Mr. Dresser erroneously describes it as wanting in *Oceanites* (Birds of Europe, vol. viii. p. 503).

² The existence of the rudimentary hallux in *Phæbetria fuliginosa* was first, I believe, pointed out by Dr. Kidder in his account of the birds of Kerguelen's Land, Bull. U. S. Nat. Mus., vol. i. p. 22.