## NOTES ON THE ARCHITECTURE, NESTING-HABITS, AND LIFE-HISTORIES OF AUSTRALIAN ARANEIDÆ, BASED ON SPECIMENS IN THE AUSTRALIAN MUSEUM.

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## PART I.-THE TERRITELARIÆ.

THE Araneæ Theraphosæ include all those Spiders which construct subterranean tubes, some of which are protected by a trap-door or lid. These are divided into three families—Liphistiidæ, Aviculariidæ, and Atypidæ. Of these, the first, consisting of only one genus, *Liphistius*, Schiödte, is peculiar to the islands of Penang and Sumatra. The second, Aviculariidæ, is divided by Simon into seven sub-families, and representatives of it are found in all parts of the world. The third, Atypidæ, although not so numerous as the preceding group, occurs in Europe, America, Africa, Japan, and Malaysia.

The Australian species, as far as at present known, belong solely to the Avicularidæ. Formerly these Spiders were included under the generic name of  $Mygale^1$  Walck. (1802), a term which had, however, two years earlier, been used by Cuvier for a genus of Mammals, belonging to the family Talpidæ, and popularly known as Moles.

Vernacularly these Araneids are known as "Trap-door Spiders," from the fact that many of their dwellings are provided at the entrance with a trap-door. These doors are of two kinds: the *thick*, or "cork-lid" type, and the *thin*, or "wafer" type. Most of these Spiders are terrestrial, but some have quitted the ground in favour of an arboreal existence. The latter are included in the sub-families Miginæ and Diplurinæ, typical genera of which are *Moggridgea*, Camb., of South Africa, and *Macrothele*, Auss., of Spain, Malaysia, and New Zealand. Some species of the latter genus, however, inhabit the fissures of rocks. One species, *Macrothele huttoni*, Camb., together with nests, I collected at Wanganui, New Zealand, some years ago. The nests were small, and built upon the trunks of trees, the silk composing the outer wall being covered with chips of bark and lichen, rendering detection very difficult; the operculum or lid was of the wafer type.

<sup>1</sup> Myogale is the modern form of this word.