science, together with some doubtful species that are reserved for further investigation, are intended to form the subject of another small supplement to the list." Some valuable hints on methods of collection are given in the introduction. Very useful notes are also interspersed throughout the work in regard to the localities frequented by the different species, and in many instances the colouring and movements of the living animals are described. These observations which are evidently the fruit of long and careful study of the Amphipoda give the work a far higher value than that of a mere catalogue. Of "*Parathemisto oblivia*, Krøyer," taken in Sanda Bay, Mr. Robertson remarks, "only a single specimen was obtained, and it is the only one that I remember of meeting with in the Firth of Clyde. I had lately, from Dr. John Murray of the *Challenger* Expedition, some gatherings taken by the tow-net in the Firth of Forth, where this species was in great abundance at the surface, and at depths of 30 and 40 fathoms." (See Note on Brook and Calderwood, p. 1640.) Mr. Robertson explains the value of tow-nets as used on board the steam yacht "Medusa," "not only as surface-nets, but attached to the dredging-line at various depths, thus giving a tolerably correct idea of the minute inhabitants of the various zones in the water, to what extent they were distinct or intermixed, and whether those found at the surface by night were met with in the under zones by day."

1888. ROLLESTON, GEORGE, and JACKSON, W. HATCHETT.

Forms of Animal Life, a manual of Comparative Anatomywith descriptions of selected types. Oxford, M.DCCC.LXXXVIII.

Pages 531–543 contain the account of the Crustacea. Claus' classification is followed. The "Class Crustacea" is thus defined:—"Aquatic Arthropoda with cutaneous or branchiate respiration: with two pairs of antennæ, a limb-bearing thorax, either free or united more or less to the head, and as a rule a segmented abdomen which may or may not carry limbs."

Among many other remarks of value the following occur:—"The second antenna may become uniramose, or the outer branch may be reduced to a scale or squame (many *Thoracostraca*). It is minute in *Apus* and is lost in all *Cirripedia* and *Hyperidæ* (*Amphipoda*)." But that the second antenna is lost in all Hyperidæ can by no means be admitted.

"The primitive type of limb is probably that of the *Copepoda*, which closely resembles the *Nauplius* appendage. It has a basal stem carrying a more or less jointed or lamellate exo- and endo-podite. Such a limb is seen in the thoracic appendages of *Cirripedia* and of the *Schizopoda* among *Malacostraca*, and is generally found in the abdominal region."

The class is divided into Entomostraca and Malacostraca, the latter thus defined:—"Head composed of five, thorax of eight, and abdomen of six somites."

The Malacostraca are divided into Leptostraca, Arthrostraca, and Thoracostraca, the definition of the Arthrostraca being, "seven, rarely six free thoracic somites; eyes sessile; no cephalothoracic shield."

The Arthrostraca are subdivided into Amphipoda and Isopoda, the Amphipoda being defined as follows:—"body laterally compressed; branchiæ on thoracic limbs; first three pairs of abdominal feet natatory: *e.g. Caprella, Cyamus, Talitrus, Orchestia, Gammarus, Hyperia, Phronima.*" To the lateral compression of the body here mentioned there are several exceptions. The characters given are generally applicable, but *Caprella* is little suited to stand as the leading illustration, since in that genus the body is rather cylindrical than compressed, the thoracic limbs are missing from the segments which carry the branchiæ, and there are no natatory abdominal feet.