

power to prohibit entirely the growing of peas in any one section for a season. Such a course faithfully carried out and followed by a careful selection of seed the next season, would doubtless almost, if not entirely, eradicate the pest from such district for a time, and thus effect a large saving to the community; hence it is most desirable in the interest of our farmers that some such permissive restrictive measure be enacted. Unfortunately, in this instance, either from want of proper information on the subject, or perhaps underestimating its importance, the Council declined to take action in the matter.

SCARABÆIDÆ—DIGGERS.

By JAMES FLETCHER, OTTAWA, ONT.

The members of the family of beetles, which bear the above name, have been objects of peculiar interest to mankind for thousands of years. This is chiefly owing to the fact that the typical species of the family to which it belongs, played such an important part in the religion of the ancient Egyptians, and also on account of those very habits which gave rise to the devotion and adoration lavished upon it by that remarkable people.

These beetles belong to a division of the insect world to which Latreille gave the name of *Lamellicornes* or leaf-horned, which corresponds with the Linnæan genera *Lucanus* and *Scarabeus*, and are easily distinguished by having the antennæ, which are generally short and nine or ten jointed, terminated by a large club-shaped organ, composed of, as a rule, three of the apical joints, which are formed into a series of flat plates, and open like the rays of a fan or the leaves of a book, or of which the basal joint of the club is hollowed so as to form a kind of cup receiving the subsequent joints; in others the terminal joints form a kind of comb. The form of these insects is robust and heavy, and the males are often to be known at first sight by the presence of singular horns on the head and thorax, and by the great size of the mandibles. So different an aspect is given to the males by these organs that, in some instances, it seems almost incredible that they can belong to the same species as the females, and it has frequently happened that the two sexes have been recorded as two different species.

This division is one of very great extent, and embraces within its wide, but clearly defined limits, insects of the most various characters. It comprises the largest and handsomest of the beetle race, and at the same time some individuals very small and sombre in appearance. Strangely enough, too, it includes within its ranks some of the most beneficial and some of the most destructive of all insects; hence, as well as from the immense number of species, and the consequently important rôle they must perform in the economy of nature, they were placed by Linnæus and Fabricius at the head of the *Coleoptera*, or sheath-winged insects (*κολεος*—a sheath, and *πτερα*—wings.) This arrangement, however, has not been adhered to by later authorities, and they are now placed immediately before the *Buprestidæ*.

The majority of these insects, and especially the gigantic species, to be mentioned later, are inhabitants of the tropics.

The two Linnæan genera, above named *Lucanus* and *Scarabeus*, constitute the two primary groups into which the *Lamellicornes* are divisible, and to which Dumeril gave the sectional names

Priocera (*Lucanus*), club of antennæ serrated.

Petalocera (*Scarabeus*), club of antennæ lamellated.

The first of these or the family LUCANIDÆ, *Leach*, corresponds to the Linnæan genus *Lucanus*, and is distinguished by having the antennæ abruptly bent into an angle about the centre, generally composed of ten joints, and terminated by a pectinated, fissile, or sub-serrated club. A striking characteristic, too, of this family is the exserted and unusually developed mandibles of the males, which gives them a most ferocious aspect, and from which the popular names of stag-beetles, horn-bugs and flying-bulls have originated. These organs in some instances (e.g., *Chiosognathus Grantii* of Chili), equal the entire length of the body. They are capable of biting with great force, and the females, notwithstanding that they are furnished with very small mandibles in comparison to their