The egg is deposited by the female in some favourable spot in the ground, where the larva, when born, will be able to secure food. The egg is hatched, and the larva comes forth a truly hideous-looking grub. (Fig. 21.) Compared with the rest of

his body, his head is enormous, of a brownish colour, horny, and surmounted by two tremendous, curved jaws. This creature has three pairs of legs, and on the ninth segment or ring of its body are two large tubercles, each terminating in a pair of recurved hooks, and of a yellowish white colour. The larva is very voracious, and devours great numbers of insects, which it entraps in a very artful man-It digs a hole in diameter about as large as a lead pencil, and said to be a foot or more in depth. To do this it hoists itself round, loads its broad head with as much dirt as it can carry, and deposits it around the mouth of the hole, forming a species of pit-fall, which sets itself in motion the moment anything endeavours to pass it. The grub clambers up near the top of this hole by means of the spines on his back together with his legs, and lies in wait for its victims. As soon as an unsuspecting insect ventures within reach, it is suddenly seized in the powerful jaws of our larva and carried underground, there to be devoured at leisure. It is diffiult to watch these proceedings, because these creatures are very mistrustful, and retire into their holes when alarmed. When the time arrives for the next step in its metamorphosis, the larva enlarges the bottom of the hole, stops up the entrance with earth, and awaits the change. It remains in the pupa state underground all winter, and emerges in the spring as the imago or perfect insect.

In this last or adult state, this insect is as ferocious as was the larva. It lives by continual warfare, subsisting on the bodies of weaker insects, of which it destroys great numbers. Their remarkable activity in running and their powerful jaws enable them to secure abundance of food, and thus they rid man of many insects which are, no doubt, very injurious to him, and as they are not known to injure anything that is of any advantage to us in any way, we feel no hesitation in including them among our Insect Friends, and bespeak for them the consideration of those disposed to kill them. Their bite is in-

offensive, and not painful.

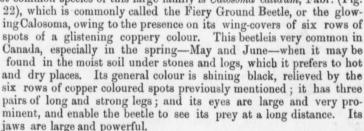
Fig. 22.

CARNIVOROUS GROUND BEETLES.

Order, Coleptera; Family, Carabidæ.

The members of this family are not so nearly alike in appearances and habits as are those in the Cicindela family, therefore we will describe the characters of a few of the more common in detail, and mention their claims to the care and protection of all interested in the various branches of agriculture.

One of the most common species of this large family is Calosoma calidum, Fabr. (Fig.



This calosoma is a relentless enemy of other insects in two of its stages, for we find that both in its grub or larval state, as well as in its perfected state, it destroys great numbers of insect pests. The larva is

when full grown, a fat grub, slightly longer than the perfect insect, tapers gradually from the middle to each extremity, and is armed behind with two curved spines.

From Mr. Riley's First Report (Noxious, Beneficial and other Insects of the State of Missouri.) we learn that "this larva has very appropriately been called the cut-worm lion by

Dr. Shimer, of M tion to the perfec of ground, as a seen them many when they encou whenever I put insects to the pe or he will fail, as ly compact earth works up the d mouth, and it si beautiful spotted and entirely dif pearance and is e breast, and a pair worms in their re them. Sometime cling with a bulle till at last the wor and proceeds to su

Riley considerand when we consum any and every me

It is also wel beetle, *Doryphora* the canker-worm, cherry, apple, plui in search of the so same purpose.

Another very worm, that pest will The beneficial is so clearly recogn gardens.

The next Calo Fab. (Fig. 23.) also



drowned in the lake Report of Entomol.

Among the inse worm, and the forest in Canada from its ra