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U. S. DEPARTMENT OF AGRICULTURE.
DIVISION OF ENTOMOLOGY.

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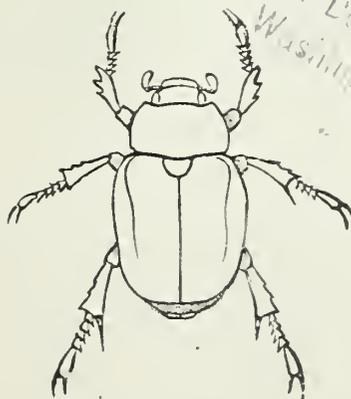
VOL. I.

JULY, 1888, to JUNE, 1889.

INSECT LIFE.

DEVOTED TO THE ECONOMY AND LIFE-HABITS OF INSECTS,
ESPECIALLY IN THEIR RELATIONS TO AGRICULTURE,
AND EDITED BY THE ENTOMOLOGIST
AND HIS ASSISTANTS.

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SPECIAL NOTES.

Australian Entomology.—We are pleased to notice that the *Garden and Field*, published monthly at Adelaide, is devoting more and more space to pure and applied science. Mr. J. G. O. Tupper is contributing a series of articles under the caption "Common Native Insects," and usually occupies all of the first page of this octavo journal. He gives popular descriptions of these insects, and names their habits.

The second page is usually occupied by Mr. Frazer S. Crawford, under the department heading "Notes on Garden Pests, etc., during the Month," and the third page is devoted to the reports of the meetings of the microscopical section of the Royal Society of South Australia.

In the April number Mr. Crawford occupies considerable space in a consideration of the statement by Mr. Skuse to the effect that the *Leptophonus* on *Icerya* and *Monophlœbus* is divisible into two species, and concerning which we have already published an article by Dr. Williston in No. 11 of INSECT LIFE. It seems that Mr. Skuse is now engaged upon a monograph of the Australian Diptera.

Mr. Crawford also devotes some space to a consideration of the Oyster-shell Bark-louse of the Apple (*Mytilaspis pomorum*), which it seems is abundant in certain sections of Australia. He also attacks our remark in No. 7 of INSECT LIFE (page 230) in which we expressed ourselves as being a little incredulous concerning his statement that infested leaves fall from the effects of an application of the resin-soap solution, while healthy leaves are not affected. Our incredulity was based upon our own experience, which is to the effect that healthy leaves are quite as badly damaged by most insecticides as leaves infested with scales.

The proposed Entomologists' Union.—As we have previously stated, the replies to our request for expressions of opinion in regard to the proposed general organization of economic entomologists have not been numerous up to date, but those which we have received have expressed so much enthusiasm in the plan that it begins to look like a matter of ultimate accomplishment. Mr. James Fletcher, Dominion Entomologist and president of the Entomological Club of the American Association

REPLY.—* * * The insect on your Camellias is the Camellia Scale (*Fiorinia camelliae* Comst.). It has previously been observed only on the Camellias in the hot-houses of this Department, but has been so thoroughly treated that it is not common. You will find a good remedy in the application of a kerosene-soap emulsion, made according to the following formula :

Kerosene	2 gals.
Common soap or whale oil soap	$\frac{1}{2}$ lb.
Water.....	1 gal.

Heat the solution of soap and add it boiling hot to the kerosene. Churn the mixture by means of a force pump and spray nozzle for five or ten minutes. The emulsion, if perfect, forms a cream which thickens on cooling and should adhere without oiliness to the surface of glass. Dilute one part of emulsion with nine parts of water.—[January 15, 1887.]

The Australian Lady-Bird.

In several of my previous letters to you I have expressed my belief that the red-and-black Lady-bug from Australia would prove more effectual as a destroyer of the *Icerya* than any of the other predaceous or parasitic insects recently introduced into this State from Australia, and I am now able to state definitely that such is the case. The Orange tree covered with a tent at Mr. Wolfskill's, in this city, where I colonized the first two or three consignments of these Lady-bugs, is now almost entirely free from living *Iceryas*, while on the adjoining trees many larvæ of this Lady-bug are now busily engaged in destroying these pests, and already the good work accomplished by them is apparent to the most casual observer. I have also colonized them in several localities in this part of the State, and in every instance the attempt has proved successful, the Lady-bugs apparently thriving quite as well here as they would in their native land.

From time to time I have carefully examined the *Iceryas* on the tree under the tent where I colonized all of the *Lestophonus iceryæ* received from Australia, but thus far have found no outward signs of parasites, although several of the *Iceryas* that I dissected contained larvæ of the *Lestophonus*. It is possible that in time this parasite may accomplish much good by destroying the *Iceryas*, but the work of the Lady-bug referred to above is so much more rapid and effectual that it seems only a waste of time to bother any longer with the slow-going *Lestophonus*. Certain it is that these two species could not live together in the same locality, since the Lady-bugs would devour all the *Iceryas* and the *Lestophonus* could not help itself. In comparing the work accomplished by the Lady-bugs with that of the *Lestophonus*, I am strongly tempted to uncover the tree inhabited by the *Lestophonus* and allow the Lady-bugs to accomplish the work that the slow-going *Lestophonus* should have done but has not. The latter may be an effectual destroyer of the *Monophloeus*, but it is no match for the *Icerya*, and the latter would certainly have continued to thrive and spread devastation among our orange groves but for the timely arrival of the Lady-bugs, whose persistent, Yaukee-like energy will soon result in sweeping this curse from our orange groves.—[D. W. Coquillett, Los Angeles, Cal., May 1, 1889.]

It gives me the greatest pleasure to report that the colonization of the parasites upon my trees appears to have resulted remarkably well, so far. Large numbers have hatched on each of the three trees upon which we placed the boxes, and, better still, Mr. Scott Chapman and myself found three larvæ upon an adjoining tree, showing conclusively that the Lady-birds were already distributing their eggs through the orchard.—[J. R. Dobbins, San Gabriel, Cal., April 27, 1889, to D. W. Coquillett.]

Valgus canaliculatus a Quince Enemy.

I have been watching for several years to see the enemy of the Quince that eats out the fruit buds when they are quite small. I send you a small beetle which I have