## ON THE GENUS RULANDUS, DISTANT, (HEMIPTERA).

BY G. W. KIRKALDY, HONOLULU, HAWAIIAN ISLANDS.

Rulandus, Distant (1904, Faun. Ind. Rh., II, 391), is described as a Nabid, but it is most certainly not, as it has neither the facies nor the characters of that family. It is a Reduviid, and judging from the figure and description is probably a Reduviine proper (Acanthaspidine).

## STUDIES IN THE GENUS INCISALIA.

BY JOHN H. COOK, ALBANY, N. Y.

III.—INCISALIA HENRICI.

(Continued from page 187.)

Incubation.—Of the thirteen eggs secured from the female confined over Vaccinium, seven were left on the growing plant and in the open air to develop under natural conditions; the other six were brought into the laboratory. When first laid the egg is pale green, showing under a low power of the microscope the large white bosses studding the surface except on the flattened top and bottom. As the larva develops within the shell the latter becomes glistening white, the caterpillar appearing but faintly through the nearly opaque pellicle.

On May 19th, between 7.30 p.m. and the next observation, the first egg (No. 1) hatched. When found at 10.30 p.m. the larva had deserted the empty shell and was feeding on a bud, the food showing through the dorsum as a dark green line. A small hole was visible at the edge of the circum-micropylar area of egg No. 3 (laid on V. corymbosum), and at 11.12 p.m. the caterpillar, having eaten away the whole top of the shell, emerged. Shortly afterward Nos. 2, 4 and 5 were punctured, and the larvæ emerged almost simultaneously at midnight. No. 6 did not hatch until 9.30 the next morning.

The eggs left out of doors did not develop so rapidly; Nos. 7, 8, 9 and 10 hatched during the early morning, and No. 11 about 5 p.m. on May 21st. The larvæ in Nos. 12 and 13 developed normally, but died within the shell.

The period of incubation, therefore, varies from 4 days 7 hours to 6 days 4 hours. Edwards gives as the "duration of this stage five or six

The Larval Stages. - Following are the tabulated records of the larvæ which lived long enough to make the determined facts of any value. The