1889

Additions to the Catalogue of Iowa Hemiptera

Herbert Osborn
structure of these glands in *Pemphigus tessellata* Fitch as an illustration of the unicellular form, (apparently the only form hitherto recognized), and in *Schizoneura crataegi* Oestland, as illustrating a complex gland. In the latter the waxy secretion is forced through chitinous rims to cup like glands, the glands arranged in clusters four to six or seven in a cluster and each composed of numerous cells.

**ADDITIONS TO THE CATALOGUE OF IOWA HEMIPTERA.**

*By Prof. Herbert Osborn.*

The additions to my list of two years ago presented in this contribution number thirty and I have a few species undetermined that can probably be included by the time the full list is published.

**LIFE HISTORY AND EMBRYOLOGY OF MONOSTEGIA (SELANDRIA) IGNOTIA (NOR).**

*By Prof. Frederick W. Mally, M. S.*

(abstract.)

This paper was a brief extract, giving the more important results of a study of the above named species as effecting the strawberry, and included in a Thesis prepared for the degree of Master of Science at the Iowa Agricultural College, Ames, Iowa, and is published in Insect Life, Vol. II.

The adults of this new strawberry pest appear about the 1st of April and begin egg deposition soon after. The period of greatest deposition being about the middle of April. In two weeks the eggs hatch. Larvae are found from the middle of April, being most abundant during the first half of May, and by the 1st of June all the larvae have matured and entered the earth.

The larvae of *Monostegia ignota* (Nor.), are distinguished from those of *Harpiphorus maculatus* by having a uniform