- 17, Larva with 5-jointed antennae; anal ring of adult with only 4 hairs *Cryptococcus*, Dougl.
 Larva with 6-jointed antennae, joint 6 long; anal ring of adult with 6 hairs *Antonina*, Sign
 Larva with 7-jointed antennae, sides very hairy; anal ring of adult and larva with 17 hairs *Kermicus*, Newst.

TACHARDIINAE

- Anal rings with numerous bristles *Tachardia*, Blanchard.
 Anal rings without bristles; anus furnished with two membranous lobes, the edges of which are bristly *Gascardia*, Targ.
 (To be continued.)

THE CLOVER-ROOT MEALY BUG.

Dactylopius trifolii, Forbes.

BY R. H. PETTIT, ASSIST. ENTOMOLOGIST AGR. COLLEGE, MICH.

On July 1, 1893, the writer collected a number of mealy bugs on clover (*Trifolium pratense*) at Ithaca, N. Y. They were found at about the level of the ground between the several stems of the plant, and also on the roots under the soil. On July 17 of this year the same insect was

Fig. 34.--DACTYLOPIUS TRIFOLII.

found on the same plant at Agricultural College, Mich. As they were both supposed to be *D. trifolii*, Forbes, a comparison was made with the original description.*

In this description the insect is credited with having seven joints to the antennae, and as the adult females found here and at Ithaca have eight, the male pupa was examined. This form has seven joints, and

* 14th Rep. of State Entomologist of Ill. for year 1884, by S. A. Forbes.

agrees perfectly with the description. The material left by Mr. G. C. Davis, on which he based his article on "Mealy Bugs and their Allies"†, was examined and found to agree with both the description and the recently collected specimens. As no description of the adult female has as yet been found by the writer, it was thought that one might be of some interest.

The adult female measures a little more than two millimetres in length, is reddish-brown in colour, covered with a coating of waxy or mealy secretion. The legs are dirty yellow in colour. From the sides project from 15 to 17 (usually 17) waxy processes, forming a fringe around the body in the usual manner, with the shortest filaments near the head, and those near the tail considerably longer, sometimes one-third as long as the body. The antennae are 8-jointed; joint 1 is swollen, as broad as long; 2 and 3 subequal, each about as long as 1; 4, 5, 6 and 7 subequal, a little over half as long as 2 or 3; 8 usually a little longer than 5 and 6 joined. There is considerable variation in 4, it is sometimes smaller than 5, 6, or 7, and sometimes slightly larger. The legs are dirty yellow, in length the tarsus is slightly more than half the tibia, which about equals the femur. Digitules 4; the 2 superior long and slender, the 2 inferior shorter and more stout. (The digitules were not distinct, but appeared as described.) Anal tubercles not very prominent, with a mass of small glandular spots, and bearing one long hair, with sometimes several smaller ones. Among the glandular spots are placed two conical projections or processes on each tubercle. These processes are from two to three times as long as broad at the base.

The figures of the antenna and leg (Fig. 34) are from drawings made from the Ithaca specimens in 1893.

NEW COCCIDS FROM KANSAS.

BY PERCY J. PARROTT, MANHATTAN, KANSAS.

Antonina Nortoni, Parrott and Ckll.

Sac white, subglobular, cottonlike, completely enveloping female.

♀ oval, plump, cream-coloured, with slight tinge of brown on margin. Boiled in caustic potash, becomes transparent, with the exception of the antennae, the two pairs of spiracles, and ultimate segment, including anal region, which are a dark yellowish-brown. There are many single glands, especially towards and about posterior segments;

† Insect Life, Vol. VII., 1894, p. 168.