

THE SHELL-BARK HICKORY MEALY-BUG.

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Pseudococcus jessica, sp. nov.

The writer names this new species of Coccidæ in honour of his wife.

Young Larvæ.—About .5 mm. long when born, and covered with a thin, transparent egg-shell; about .25 mm. wide; oval, broadly rounded at cephalic end and slightly tapering from the fore part of abdominal region to the anal lobes; anal lobes each bearing one short hair; colour: reddish brown on dorsal surface, but orange-brown on the ventral surface, due to the colour of the legs and antennæ; with transmitted light through prepared slides the body appears orange-brown; antennæ six-segmented, bearing numerous hairs; eyes reddish or purplish in colour and situated just behind the peduncles of the antennæ; quite active; body covered with a fine, white, powdery, waxy secretion except at articulation of body segments.

Adult Female.—4 to 6 mm. long; 2 mm. high; 2.5 mm. broad; generally hemispherical in outline, flattened ventrally, and sometimes dorsally when crowded between the bark and wood; colour: purplish blood-red (about the same as that of the woolly aphis—*Schizoneura lanigera*) covered with a relatively thick deposit of white, waxy, secreted powder; *no* lateral fringe of white waxy exudation, nor any hairs, nor secreted waxy, glassy filaments as in certain other mealy-bugs; segmentation of body delineated by thinner secretion of powder wax at those places of articulation; *no* ovisac is formed, the embryos being laid at caudal end of body under the parent; legs and antennæ reddish brown; when boiled in 10% KOH the bodies of the adults turn deep blue-black and colour the KOH a blood-red.

The *males* have not been observed.

Locality.—Columbia, Mo.

Habits.—It takes the young about fifteen minutes after birth to free themselves from the thin, membraneous egg-shell which envelopes them. They have *no* powdery secretion when they first emerge from the pellicles. The young larvæ have the habit of congregating in masses when not attended by their common "shepherds," the little black ant (unidentified). In their natural