Phenacaspis spinicola n. sp.; an apparently new Coccid from Indiana (Hem., Hom.).

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The following description of what seems to be a new species of Diaspinae is published as a preliminary to a systematic paper on the Coccidae of Indiana, which is now completed and will be issued about the first of April.

We have had some difficulty in deciding the generic position of this species, but after a careful study of related species, including the type of *Phenacaspis* and eight species of *Chionas*pis, have concluded that it should be included in *Phanacaspis* Cooley.

Phenacaspis spinicola new species.

Scale of Female: Length 1.5-2 mm.; strongly broadened behind, widest behind the middle, apex broadly rounded, sometimes more irregular in shape, thin, somewhat convex, color normally white but often gray or dirty gray: exuviae large, occupying fully one-third of the total length of the scale, the first pale brown and shiny, the second very light yellow and dull: ventral scale well developed along the edges, very thin or wanting in the centre, often remaining attached to the dorsal scale.

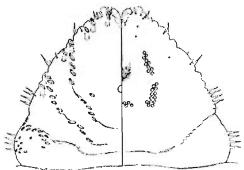
Scale of Male: Length about 8 mm.; elongate, narrow, sides approximately parallel or slightly curved; white, more or less distinctly tricarinate, roughened above; exuvia, pale yellow, occupying fully two-fifths of the total length of the scale.

Body of Female: Elongate, narrow, broader just in front of the pygidium, distinctly segmented, cephalic segment almost triangular, apex rounded, the two segments preceding the penultimate segment more or less distinctly constricted at the sutures.

Pyaidium of Female: Rather large, parabolic in shape: deeply incised at apex by the sunken median lobes: median lobes large, deeply sunken into the pygidium, broad, the outer margins nearly straight, then angularly curved to the median chitinous thickenings, inner margins strongly curved from base to apex, close together and parallel for a short distance at base, distinctly crenulate, second lobes distinctly divided into spatulate lobules, the inner more prominent than the median lobes, inner lobule of third lobes well developed, but broad, only slightly projecting, with serrate margin: no incisions in the margin of the pygidium; with a more or less distinctly hexagonal thickening on the median line at the base of the median lobes, this deeply notched candally; no plates present, gland spines as follows: one inst outside

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median lobe, one just outside of the outer lobule of the second lobe, one beyond the rudimentary outer lobule of the third lobe, one about half-way between this and the base of the pygidium and a group of two to four just caudad of the base of the pygidium; spines as shown in figure; anal opening circular, slightly nearer to base than to apex of pygidium; circumgenital gland openings arranged in five groups, median 8-9, anterior laterals 10-15, posterior laterals 7-10; marginal gland openings as follows: one between the first and second lobes on a slight prominence, one on a slight prominence between second gland spine and inner lobule of third lobe, one just beyond this, opening at the outer angle of the inner lobule of the third lobe, one, the first of a row, on a



Phenacaspis spinicula n. sp.-Pygidium of female, dorsal surface to right, ventral surface to left. (R. E. Snodgrass, del.)

slight prominence a little beyond the third gland spine, one a little beyond this, a little inside of the margin, apparently opening into a pocket, one on a slight protuberance beyond the fourth gland spine and the last a little beyond this; dorsal gland openings somewhat variable, but about as shown in figure; micropores so far as observed as follows: two, one in front of the other, cephalad of the outer lobule of the sec ond lobes, one close to the second gland opening of the first row of dorsal gland openings.

Types deposited in the writers' collections, co-types in the U. S. N. M. Coll., Cornell University collection, collection of Prof. R. A. Cooley, Ohio State University collection, Stanford University collection and Academy of Natural Sciences of Philadelphia collection.

This species has been found in two places just outside of Indianapolis, Indiana, September 15, 1915, and in two places east of Vincennes, Indiana, August 31, 1915, in all cases on the honey locust (*Gleditsia triacanthos*), infesting especially the green spines on the trunk of the tree, but also to some extensible bark, twigs and leaves. In all cases it was scarce, and cannot be considered as being of economic importance.