

## NOTES ON SOME SCALE INSECTS OF THE SUB-FAMILY DIASPINÆ.

BY T. D. A. COCKERELL, LAS CRUCES, NEW MEX.

The following notes are intended to throw further light on the affinities of certain little-known species, which I have lately examined :—

(1.) *Chionaspis major*, Ckll.—Found on Heliotrope at Antigua by Mr. C. A. Barber. The ♀ resembles that of *Diaspis lanatus*, but may be distinguished from it without difficulty. There is only one pair of lobes, and these are very large, elongated, and crenate on both sides; they touch one another at their bases, but diverge toward their tapering extremities. There is a small spine near the outer edge of each lobe. On the margin beyond the lobes are three spine-like plates, then a shallow notch, then three more plates, then another shallow notch, then a series of from five to eight spine-like plates, mostly large, one especially so. The produced margins of the segments cephalad of this bear spine-like plates, the first counting from the caudal end having nine, the second 5, the third 8, the fourth 4 or more, the fifth 4 or more small ones, and the sixth only rudiments.

This insect is not allied to the common West Indian *Chionaspis*, *C. minor*, Maskell, but belongs to the group of *C. salicis*, L., etc. The scale is about 4 mm. long, oval, white with brownish exuviae.

(2.) *Diaspis cacti*, Comst. n. syn. *opuntiae* (*opunticola*), Newst., Ent. Mo. Mag., 1893, pp. 188, 280.

Mr. Wickham has sent me some specimens found in a greenhouse at Iowa City, Iowa (coll. M. F. Linder), which lead me to advance the above synonymy. They present all the characters of *cacti*, and in addition the numerous "spinnerets or pores," and the elongated pores, which form the specific characters of *opunticola*. I cannot believe that there is a distinct species, *D. cacti*, resembling the present one in all other respects, but lacking these pores, and must assume that Comstock's description was so far imperfect. My variety *opuntiae* (Journ. Inst. Jamaica, Vol. I., p. 256), from Jamaica, looks different owing to the much paler exuviae (paler, no doubt, because less exposed), but I can see nothing to distinguish it as a species from *cacti*. It has the pores of *opunticola*.

Mr. Newstead's scales differed also a little in colour from typical *cacti*, so that three colour-mutations may be distinguished thus :—

(1.) Exuviae not strongly contrasting with scale, . = *opuntiae*, Ckll.