Types, Yuma Co., Arizona, March. Cochise Co., Arizona.

I am under great obligations to Prof. J. B. Smith for more perfect specimens of this interesting species than those I already possessed. I am rather inclined to think this species may form the type of a new genus, but prefer to place it here provisionally, leaving its final disposition to someone more competent than myself to examine it structurally.

Coccus luzena, n. sp.—Expanse, 24 mm.

Head, collar, patagia, thorax and fore wings evenly gray. Inner half of fore wing quite thickly covered with transverse blackish strigæ. In the outer half these have a tendency to be more reticulated. A rather heavy black band from middle of costa downward and outward, dividing into two or three prongs just before reaching inner margin. Two similar though less heavy lines leave costa between inception of median line and apex. These unite and proceed as a single line for a short distance and then divide into two or three branches just before reaching inner angle.

Hind wings gray with a somewhat reddish-brown tinge. Beneath fore wings gray, somewhat reddish-brown centrally, hind wings gray, both wings reticulated with black, the inception of these on costa of fore wings being especially pronounced. Thorax gray, abdomen greasy, but apparently gray. Legs gray, tarsi banded with black.

Type, 1 ♀. Huachuca Mts., Arizona.

ON THE SPECIFIC VALIDITY OF *INCISALIA* HENRICI.

BY JOHN H. COOK, ALBANY, N. Y.

For many years I have collected diurnal Lepidoptera in the neighbourhood of Albany, N. Y., making a special study of established varieties, sports, and minor varieties within the species.

Among the *Lycaenidae* the forms which have proved of greatest interest from this point of view are those embraced in the genus *Incisalia*; *I. irus* in particular has afforded abundant material for investigation, and long ago I was enabled to recognize several tendencies in the distribution of colour over both the wings and body, which made it possible to separate this species into groups or form-series. These variations appeared in both sexes, and, as it then seemed, without any indication of tendencies peculiar to either. As an illustration of the danger accompanying the unqualified acceptance of a generalization, I may state that, after having satisfied myself with regard to the character of the discal stigma of the male, I made use of this as a criterion of sex.

June, 1905.

In May, 1904, my brother, Mr. Harry Cook, called my attention to the fact that some of the males (as proclaimed by the genitalia) were *without the stigma*. As many specimens were taken as the lateness and unfavourableness of the season permitted, and all the material collected in former years was again carefully sexed. This resulted in a complete readjustment of the previously accepted form-series, and brought order out of chaos (at least among the males).

Correlated *in every instance* with the absence of the discal stigma are characters which clearly distinguish these males from typical *irus*. The most striking are: (1) the uniform blackish-brown of the basal half of the secondaries beneath; (2) the definiteness of the boundary of this area and its almost equal projection between the median nervules (in *irus* this projection is constantly greater between the second and third than between the first and second); (3) the continuity of the extramesial line running from the costal margin of the primaries—under surface—to the first median nervule (in *irus* this is represented by a series of short dashes between the nervules, which, being at different distances from the outer margin, give the appearance of a much broken or crenulate line). I moreover failed to find any androconia at all on the individuals without the stigma. There are other differences between the two series quite as noticeable, but not constant enough to serve as distinguishing characters.

On a basis of the three constant and best differentiated characters of the males, the females were separated very satisfactorily, and in their turn exhibited correlative differences of minor importance.

The above generalizations are made from sixty-three specimens.

It is to be noted that the series thus removed from *I. irus* agrees in detail with the description of *I. Henrici*, as published by Grote and Robinson in 1867 (Trans. Am. Ent. Soc., I., 174). Scudder has sunk *Henrici* as a synonym; Dyar retains the name, regarding the forms as distinct.

The original description fails to mention the stigma, although it seems reasonable to believe that the absence of so obvious a mark would have attracted the attention of two such experienced observers as the authors, especially since its absence from the ♀ of another species is remarked in the same paper (p. 173).

Edwards, who bred what he thought to be a *Henrici* (Papilio, I., 150-152)—the description of the early stages of which has since passed, with many, for a description of the early stages of *irus*—was certainly

unaware of such a distinction, and his statements here and in the American Naturalist (XVI., p. 173) may refer to either *Henrici* or *irus*.

Holland mentions the rusty suffusion of the upper surface as one point of distinction, and figures a well suffused ♀. This character is thoroughly unreliable because inconstant, relative and balanced by similar suffused individuals of *irus*. Nevertheless, it has been used as a criterion by many, and there is a specimen in the collection of the late J. A. Lintner labelled *T. irus*, var. *Henrici*, which is an undoubted ♂ *irus*.

The characters, then, separating the two series seem to be of sufficient importance to warrant their recognition as distinct species, at least until the test of breeding can be applied. I have been unable to discover any difference in the genitalia, but this fact hardly militates against the position taken, as one needs a long series and a good imagination to discriminate between the genitalia of any of the recognized species of this genus.

The earliest record of the capture in this vicinity of *I. Henrici* which I have is May 28, 1890.

A NEW SPECIES OF BUCCULATRIX.

BY MARY E. MURTFELDT, KIRKWOOD, MO.

Bucculatrix Ainsliella, n. sp.—Antennæ about three fifths the length of the fore wings, annulated in dusky brown and dull yellow. Eye caps golden white, expanded. Apical tuft long, projecting forward, dark brown in centre, shading outwardly to dingy white. Face satiny cream white. Thorax cream white, more or less dusky, overlaid with dark brown scales, with small but distinct dark brown spot on centre of dorsum, two rather narrow marks of same colour forming a triangle or open V on posterior joint, back of which is a silvery white band. Forewings: ground colour shining cream white, more or less obscured by dark brown scales, which in some lights exhibit purplish reflections. The pattern, which, though less deeply shaded in some specimens than in others, is quite unvarying, consists of a dark brown longitudinal band from the base along the costa, gradually broadening and intensifying to the apical third, where it narrows and curves backward, leaving the anterior margin to the apex merely speckled with the dark scales. The inner margin to beyond the middle is but sparsely irrorate with brown, but has, just below the cell, a conspicu.

June, 1905.