

as shown in fig. 22. Hind wings yellow, with a terminal black border; sometimes much broken, as in fig. 22. Under side in fig. 21, the light part yellow, more or less red stained at base.

One ♂ from Southern California, three ♂'s from Colorado, two ♀'s from Truckee, Cal., and five ♀'s from other parts of California. Besides this there are two ♀ intergrades with *Decia* from Colorado, four ♀ intergrades with *Decia* from Truckee, Cal., and two ♂'s and one ♀ intergrade with *Decia* from Southern California.

One of the principal variations in these forms is found in the amount of black on the hind wings, ranging from wholly black to a few black spots as a terminal border. The first breaking up of the solid black is found in a single light point near anal angle, then a few pale scales across the wing, next a band of light, in the succeeding stage the basal part invaded by pale rays, and finally all the black obliterate except the terminal border. In the specimens having only the terminal border of black, there is a fine penciling of black along the veins, and in the intergrades between *Wrightii* and *Decia* a gradual fading out of both the transverse band and rays may be found till there is nothing but the obliterate penciling of the veins left. Variety 5, *Occidentalis*, seems to be an irregular form that only partially falls within the line of the regular variation. The fore-wings are black in the red forms, with but little if any gray tint; in the yellow forms, slightly gray tinted, with three more or less distinct transverse bands, which in the gray wings lack the gray tint, and contain in nearly all of them a few white or whitish spots. When only a few spots are present, these are costal in second and third band, and one at posterior angle in third band. Varieties 1, 2 and 4 seem to come from an unusual development of the second band.

The varieties are largely local. The prevailing color of Southern California examples, as seen by the localities under the several varieties, is crimson; the Sierra Nevada and Colorado forms are mostly yellow, and the Oregon and North California forms are orange. These are the prevailing colors. In the Truckee specimens all my males were yellow and females varying from almost a distinctive orange to yellow, with traces of the red tinge along the veins (of hind wings, of course). In Lord Walsingham's collection from Oregon the prevailing color was orange, and we find that color extending into California. But in each of