

IX. *A revision of the genera Acrolophus, Poey, and Anaphora, Clem.* By The Right Honble. Lord WALSINGHAM, M.A., F.L.S., F.Z.S., &c.

[Read April 6th, 1887.]

PLATES VII. & VIII.

ABOUT a year ago I received from Mons. Emile Ragonot, President of the French Entomological Society, a box containing thirteen specimens which had the general appearance of the genus *Anaphora*, Clem. Perhaps, owing to their unlucky number, they had suffered woeful treatment on the journey. On carefully examining the remnants I found myself quite unable to recognise any named species, and at once determined to devote my first week of leisure to a study of the group to which they belonged. The literature of the subject is not voluminous. Taking the genera *Acrolophus* and *Anaphora** together, the number of species described amounts to fourteen only, some of which are already admitted to be synonymous. The peculiar form represented by these genera, having for its chief characteristic hirsute and greatly recurved or elevated palpi, appears to be confined to the two continents of America and to the West Indies, but extending to the Sandwich Islands, the Hawaiian genus *Stœberhinus*, Butl., obviously belonging to the same group. There are probably an infinite number of species scattered throughout the Nearctic and Neotropical Regions.

In general appearance these insects have a strong superficial resemblance to certain Asiatic forms chiefly included at present in the Indian genus *Alavona*, Wlk., but represented also in Africa. The different shape of

* I find on examination that the types of *Tirasia granulatella*, Walker, from Villa Nova, and *Eddara zylinella*, Walker, from Jamaica, are both females of some species of the *Anaphorinæ*, but it is not possible to adopt these generic names without knowing the structure of their respective males.

the palpi and of the anal appendages usually serves to separate them with precision, although their relationship is probably not remote. A discussion of the affinities of *Alavona* must be reserved for a separate paper. The genera now under revision may conveniently be placed in a subfamily of the *Tineidæ* under the name *Anaphorinæ*, but no arbitrary limitations can be placed upon this subfamily without a careful study of the structural characters of several presumably allied genera, such as *Tiquadra*, Walk., *Amydria*, Clem., *Setomorpha*, Z., &c.

The description of the larva of *Anaphora popeanella* ("agrotipennella"), contributed by Miss Murtfeldt to the 'Canadian Entomologist,' vol. viii., pp. 185-6, shows that the "thoracic legs" are "unusually long," that the "segmentation" is "strongly marked," and that the whole larva "tapers posteriorly from its greatest diameter at the head and first joint." The colour is described as "a dark purple-brown, the general surface dull, having the appearance of very fine stippling, but variegated with conspicuous, slightly elevated, polished spots, eight on each thoracic, and ten on each abdominal joint." "Head horizontal, broad and thick, of a highly polished black colour, the triangular face outlined by a fine line of brown." Its habits are decidedly peculiar, and remind one rather of a trap-door spider than a lepidopterous insect. It inhabited a tough silken gallery, "white and smooth inside," "which had an open entrance at the surface of the ground, from which its inmate emerged at night to feed" upon white clover. "The chrysalis was slender, elongate, the abdominal segments sharply edged but not serrated, and of a mahogany-brown colour. The palpal sheaths conspicuous, extending down on the ventral side as far as those of the antennæ." The chrysalis was ultimately found in the middle of the long subterranean silken gallery.

These larval habits, as well as the differently-formed sexual appendages and palpi seem to separate *Anaphora* and its allies from *Tiquadra*, Walk., which, under the name *Acureuta*, is described by Zeller (Horæ Soc. Ent. Ross, xiii., p. 201) as having a case-bearing larva.

No great difficulty is likely to arise in distinguishing all other known or rather described genera from those included in this paper; but intermediate forms may

probably be found. Some apology appears to be needed for the creation of an unwonted number of new generic names, but if the future study of the group is to be facilitated it is not well to ignore structural differences of palpi, antennæ, and neurulation, such as are usually considered to possess generic value. The whole group has been very little studied, although largely represented on the other side of the Atlantic, and the time may probably come when some lover of the Micro-Lepidoptera, more fortunate or more industrious than myself, may be not ungrateful for this attempt at orderly subdivision, if it should enable him to distinguish and classify a much larger accumulation of specimens and species than I have ever had the pleasure to examine.

The generic characters have been taken chiefly from the form of the labial palpi and antennæ, and from the double or single apical vein of the fore wings. The sexual appendages on the ultimate segments of the bodies of the males have been found reliable in separating the species, although certainly not uniform throughout the genera. These appendages, both as to the form of the uncus,—sometimes single, sometimes double, sometimes arched, and sometimes angulated,—and as to the form of the lateral claspers presenting various modifications, seem to afford a not unnatural basis for specific distinction, inasmuch as they must more or less affect the process of mating and the transmission of hereditary peculiarities.

Full descriptions of these appendages are to be found in a paper by Dr. Buchanan White in the '*Annales de la Société Française*' for 1878, p. 467, *et seq.*, entitled, "*Observations sur l'armure génitale de plusieurs espèces françaises de Zygenidæ.*" In that paper the term "*tegumen*" is used to indicate the organ here referred to under the name "*uncus*"; whilst what I have called "*lateral claspers*" are entitled "*harpagones.*" This terminology is discussed in a valuable paper in the '*Transactions*' of the Linnean Society, 2nd ser., 1883, vol. ii., pt. 6, p. 270, by Mr. P. H. Gosse, who uses the terms "*uncus*" and "*harpes*," both of which I should perhaps have done better to have adopted.

TABULATION OF GENERA OF ANAPHORINÆ.

- A. Palpi erect or slightly recurved.
 - a. Apical vein of fore wing forked.
 - i. Palpi erect = EULEPISTE, *Wlsm.*
 - ii. Palpi appressed to the head = NEOLOPHUS, *Wlsm.*
 - b. Apical vein of fore wing not forked.
 - i. Antennæ bipectinate = ANKISTROPHORUS, *Wlsm.*
 - ii. Antennæ simple or serrated towards apex.
 - 1. Tarsal joints of hind legs strongly fringed above
= THYSANOSKELIS, *Wlsm.*
 - 2. Tarsal joints of hind legs not strongly fringed above.
 - aa. Palpi erect, with distinct separate tufts on each joint
= ORTHOLOPHUS, *Wlsm.*
 - bb. Palpi slightly recurved, uniformly hirsute throughout
= PSEUDANAPHORA, *Wlsm.*
- B. Palpi strongly recurved.
 - a. Antennæ bipectinate = FELDERIA, *Wlsm.*
 - b. Antennæ serrated throughout.
 - i. Apical vein forked = CÆNOGENES, *Wlsm.*
 - ii. Apical vein not forked = ANAPHORA, *Clem.*
 - c. Antennæ simple, compressed, or slightly serrated at the ends.
 - i. Apical vein forked.
 - 1. Head with erect crest = URBARA, *Wlk.*
 - 2. Head without erect crest = HYPOCLOPUS, *Wlsm.*
 - ii. Apical vein not forked.
 - 1. Palpi roughly clothed throughout = ACROLOPHUS, *Poey.*
 - 2. Palpi not roughly clothed throughout = STÆBERHINUS, *Butl.*

The following six species cannot at present be included in any tabular arrangement, so far as it may be dependent on the form of the uncus and lateral claspers:—*Acrolophus* (*Pinaris*) *hamiferellus*, Hb., *A. cervinus*, *Wlsm.*, *A. vitellus*, *Poey*, *A. pallidus*, *Möschl.*, *Anaphora leucodocis*, *Z.*, *A. minima*, *Wlsm.* The genus *Pinaris* of Hübner, in which he places his Brazilian species *hamiferella*, included a number of European forms with short palpi; and *Poey* (*Cent. Lep. I. Cuba*) properly declines to recognise it as the type of that genus. We know nothing of its structure except that the palpi are long and recurved, and the antennæ apparently simple; expanse, 30 mm. Of *Acrolophus cervinus* I have not seen a male, but the form of the palpi in the female is precisely similar to those of the females of *Anaphora plumifrontella*. *Acrolophus vitellus*, *Poey*, having simple

antennæ, is taken as the type of that genus throughout this paper, but I have had no opportunity of examining the structure of its anal appendages. *Acrolophus pallidus*, Möschl., appears to be described from a single female from Parimaribo, the male not being known.

Anaphora leucodocis, Z., has the antennæ serrated, and may therefore safely be left in the genus in which it was placed by Zeller, as corresponding with *A. popeanella*, Clem. For the same reason *A. minima*, Wlsm., goes with it. The anal segments of my single specimen are somewhat injured; although much smaller it shows some affinities to *A. pusilla*.

NEOLOPHUS, n. g.

(Νεος = new, λοφος = a crest).

Type. *Neolophus furcatus*, Wlsm.

Labial palpi of male somewhat recurved, flattened against but not reaching beyond the crown of the head; of female shorter than in the male, not erect or recurved. *Maxillary palpi* small, depressed. *Antennæ* simple, but with lines of raised scales, giving an appearance of serration. *Fore wings* elongate, with the costa nearly straight, the apex slightly rounded, the apical margin oblique, scarcely convex; with 12 veins, 8 and 9 from a common stem. *Hind wings* as wide as the fore wings; with 8 veins, 6 and 7 parallel.

Neolophus furcatus, n. s. (Pl. VII., figs. 1, 1 a, 1 b).

Labial palpi, ♂, slightly recurved, reaching to the back of the head; the apical joint roughly clothed with appressed scales, not brush-like. *Antennæ* brownish ochreous, not serrated, although having that appearance at the tips, owing to the presence of raised scales. *Head, thorax, and palpi* dull greyish fuscous. *Fore wings* rather narrow, the costa almost straight, the apical margin oblique, scarcely convex; apical vein forked; greyish, sprinkled and striated around the margins with brownish fuscous; a broad irregular streak of brownish fuscous, from the base to the end of the cell, partly connected with two ill-defined spots of the same colour on the inner and outer thirds of the fold; fringes greyish fuscous. *Hind wings* pale greyish brown. *Abdomen* the same; lateral claspers narrow towards the base, rather triangular and upturned beyond it, obtusely rounded at the apex; uncus double,

nearly straight, scarcely at all bent over, its opposing branch below being of nearly equal length with itself. *Exp. al.* ♂, 19 mm.

Hab. A single male from Arizona, collected by Morrison.

EULEPISTE, *Wlsm.*, Trans. Am. Ent. Soc., x., p. 169 (1882).

Type. *Eulepiste cressoni*, *Wlsm.*

"Head rough; maxillary palpi none,* tongue none, ocelli none. Labial palpi ascending, with the second joint roughly clothed with coarse scales, projecting beneath; terminal joint coarsely scaled, tapering to a blunt point; about equal in length to the second joint. Antennæ (with the basal joint thickened and coarsely scaled) slightly serrated and pilose beneath. Anal appendages of the male greatly developed; the side claspers elongate-ovate, projecting well beyond the triangular-pointed upper shield, which is clothed with long scales; the anal segment with short diverging bristles beneath. Fore wings: costa arched, apex rounded, apical margin oblique, slightly convex; dorsal margin nearly parallel with the costal, but slightly emarginate before the anal angle; apical vein forked. Hind wings ovate, rather wider than the fore wings, widest on the basal half, tapering outwards towards the rounded apex, and not emarginate below it. Veins of the fore wings twelve, not including the false vein after vein 1 on the dorsal margin; two of these from the same stem; cell closed. The vein running from the upper corner of the cell in the fore wings is forked, one branch ending on the costal margin and one in the apex."

TABULATION OF SPECIES OF EULEPISTE.

- A. Lateral claspers narrow, with straight upper edge.. *cressoni*, *Wlsm.*
 B. Lateral claspers wider, with arched or dilated upper
 edge *maculifer*, *Wlsm.*

Eulepiste cressoni, *Wlsm.*

Trans. Am. Ent. Soc., x., p. 169 (1882).

"Palpi brown, with ochreous scales intermixed, the apical joint with an indistinct pale ochreous band around its middle. Antennæ pale brown. Fore wings brown with scattered purplish fuscous and ochreous scales, the former collected in raised tufts, especially about the dorsal margin; the latter aggregated in the form of

* I find very short maxillary palpi in this genus and species, which were overlooked when the original description was made.

three or four square patches, one before and one beyond the middle of the dorsal margin, one about the middle of the costa, and one at or just before the apex. These in some specimens are so arranged as to form an indistinct chess-board pattern, the dark and pale squares being alternate on the costal and dorsal halves of the wing; in some specimens the median costal and the antemedian dorsal pale squares, which are always somewhat the more conspicuous, are joined in an angulated fascia. Abdomen with the hind wings and their cilia dull brown. The first two pairs of legs conspicuously spotted with brown and ochreous, the third pair ochreous on the tibiæ, spotted with brown on the tarsal joints. Expanse, 15 to 20 mm., the female being larger than the male. Texas."

To this I may add that the thorax is crested posteriorly, the uncus double with the points abruptly bent over, very closely approximate, and laterally compressed or flattened; the lateral claspers of approximately even width throughout, the ends rather square, but slightly oblique.

Eulepiste maculifer, n. s. (Pl. VII., figs. 1 c, 1 d).

Labial palpi, ♂, erect, the first joint thickly scaled beneath, the second and third joints without distinct tufts, brownish fuscous, paler on the inner sides and above. ♀ porrect, the first and second joints clothed with a coarse projecting tuft; the third joint only exposed, slender. *Antennæ* brownish, having a spotted appearance owing to thin lines of rather darker raised scales at the joints. *Head* brownish fuscous, tufted above the eyes. *Thorax and fore wings* brownish fuscous, the latter mottled with dark ferruginous and bearing a dingy white spot on the outer half of the fold and a more diffused and ill-defined patch of the same colour on the apical portion of the wing; there are some dull whitish markings in the cilia and before the anal angle; along the costa the brownish fuscous colouring is interrupted by paler and more greyish fuscous before and beyond the middle. *Hind wings* brownish. *Abdomen and hind legs* the same; tarsal joints spotted with fuscous; uncus slightly bent over, double, the points closely approximate; lateral claspers elongate, attenuated posteriorly, oblique at the ends, their upper extremity rather pointed. *Exp. al.* ♂, 20 mm; ♀, 20—24 mm.

Hab. Three males and two females from Arizona (*Morrison*).

HYPOCLOPUS, n. g.

(ὕποκλοπος = hidden or furtive).

Type. *Hypoclopus griseus*, Wlsm.

Labial palpi, ♂, overarching the thorax; all the joints roughly clothed; ♀ short, porrected. *Antennæ* pilose, slightly serrated towards the apex. *Fore wings* with the costa rather straight, the apical margin oblique, somewhat attenuated towards the base; apical vein forked. *Hind wings* slightly wider than the fore wings; uncus single.

The necessity for establishing this genus rests upon the wide difference in the structure of the palpi from those of *Neolophus*, with which in all other respects it perfectly agrees. It differs from *Cænogenes* in its antennæ, and from *Urbara*, Walk., in the absence of an erect crest at the top of the head, as well as in the form of the wings.

Hypoclopus griseus, n. s. (Pl. VII., figs. 2, 2a, 2b).

Palpi, ♂, overarching the thorax and reaching to its posterior margin; ♀ short, standing straight forward from the head about 1 mm. *Antennæ* dull greyish ochreous; ♂ compressed, ovate, pilose, having a serrate appearance owing to lines of partially raised scales on their anterior sides; ♀ simple. *Head, thorax, and palpi* with an equal admixture of hoary and greyish fuscous scales. *Fore wings* greyish fuscous, profusely sprinkled with hoary scales, which predominate in a patch below the middle of the fold; a sprinkling of dark fuscous scales is also noticeable, especially along the costa, where they form a series of small dots, and at the outer end of the cell, where they are concentrated into an ill-defined dark fuscous patch; a smaller dark fuscous patch occurring beyond the middle of the fold. In the fringes patches of hoary and greyish fuscous scales alternate with each other. The apical vein is forked. *Hind wings* reddish brown; fringes cinereous. *Abdomen* cinereous; lateral claspers attenuated in the middle and widened posteriorly, their ends rounded above, obtusely angulated below. The uncus is bent over and is single, but a supplementary point with a double stem in the form of the lower mandible of a bird, coming from below it, reaches nearly as far as the uncus itself. *Exp. al.* 26 mm.

Three males and one female received from Morrison, collected in Arizona. This species may be distinguished by its almost square-ended lateral claspers, and by the length of the opposite branch of the uncus, which,

although it occurs in other species, does not appear to attain the same proportions; the forking of the apical vein and the single uncus separate it from other species having much the same general appearance.

URBARA, *Wlk.*, Cat. Lep. Het. B. M., xxix., 835 (1864).

Type. *Urbara galeata*, *Wlk.*

“♂. Body rather stout. Head above with a thick erect tuft of hairs. Eyes large, prominent. Proboscis distinct. Palpi thick, erect, thickly clothed with long erect hairs, nearly twice longer than the breadth of the head; first joint long, but much shorter than the second; third about half the length of the second. Antennæ slender, minutely setulose, much shorter than the fore wings. Legs stout, squamous; spurs long. Wings rather narrow, rounded at the tips; exterior border very oblique hindward.”

To this may be added that the apical vein is forked.

Urbara galeata, *Wlk.*

Wlk., Cat. Lep. Het. B. M., xxix., 835 (1864).

“♂. Brown. Head above and palpi blackish brown. Legs cinereous. Fore wings with four black points in the disk; two of these in a direct line between the other two and the interior border; a row of black points along the exterior border. Length of the body, 4 lines; of the wings, 12 lines.

“*a.* Ega. From Mr. Bates's collection.”

The apical joints of the palpi are broken off, but have evidently been long and recurved, as in *Anaphora* and *Acrolophus*.

THYSANOSCELIS, n. g.

(θύσανος = a fringe, σκέλος = a leg).

Type. *Thysanoscelis hirsutus*, *Wlsm.*

Labial palpi recurved, closely appressed to the head, but not reaching above the crown; second joint thickly clothed with a stout, close brush of scales; apical joint short, also concealed in rough scales. *Maxillary palpi* depressed. *Antennæ* with the basal joint tufted or bearing a close brush of scales, simple. *Tongue* very short. *Thorax* tufted. *Fore wings* elongate, rounded at the apex, with the costa slightly arched near the base, the costal and dorsal margins beyond parallel; bearing patches of raised scales; all the veins separate, 8 and 9 from the same point. *Hind wings* slightly wider than the fore wings, ovate. *Posterior legs* with the inner spurs much longer than the outer, with strong erect brushes

of scales above to the penultimate tarsal joint. *Abdomen*, lateral claspers wide at the base, slender and straight beyond; the uncus double, points closely approximate. The form of the uncus and lateral claspers should probably be regarded as having rather a specific than a generic value.

Thysanoscelis hirsutus, n. s. (Pl. VII., figs. 3, 3a, 3b, 3c).

Head and palpi whitish fawn, inclining to ochreous above; the palpi with a few brown scales at the sides. *Thorax* whitish fawn, speckled and mottled with brownish ochreous, sparsely irrorated with dark brown scales, some beneath the costa, some on the disc and beyond it, others on the fold; the extreme base of the costal margin is umber-brown; three patches of raised scales are especially noticeable, one above, the other below the middle of the fold, the third on the fold and near its outer end. *Hind wings* greyish brown; fringes cinereous. *Abdomen* greyish brown; anal tuft cinereous; lateral claspers slender, rounded at the apex; uncus double, bent over, not angulated. *Exp. al.* $17\frac{1}{2}$ —20 mm.

Espirito Santo, Brazil. I have two males of this curious species, purchased of Deyrolle in Paris many years ago. They obviously belong to the same group as *Acrolophus*, *Anaphora*, &c., but cannot, so far as I can determine, be rightly included in any hitherto described genus.

ANKISTROPHORUS, n. g.

(ἄγκιστρον = a hook, φέρειν = to carry).

Type. *Ankistrophorus corrientis*, Wlsm.

Labial palpi erect, thickly clothed; apical joint short, not brush-like, not reaching the thorax. *Maxillary palpi* 3-jointed, slender, not folded. *Ocelli* wanting. *Antennæ* bipectinate, the pectinations short, fringed with delicate hairs. *Fore wings*, costa straight, apical margin oblique, scarcely convex; neurulation as in *Anaphora*; apical vein not forked. *Abdomen*, lateral claspers more or less spoon-shaped, inverted; uncus double, with small supplementary lateral processes.

Ankistrophorus corrientis, n. s. (Pl. VII., figs. 4, 4a, 4b).

Labial palpi cinereous, somewhat darkened above at the base. *Antennæ* cinereous. *Head and thorax* cinereous, the latter strongly tufted posteriorly. *Fore wings* cinereous, much clouded and speckled with dark greyish fuscous, of which the more conspicuous patches are at the base and end of the cell, and above the

outer third of the fold. The wings vary considerably in colour in different specimens, the dark shading being much reduced in some and increased in others. *Hind wings* fuscous, with a decided purple tinge in good specimens; the fringes cinereous. *Abdomen* greyish fuscous; the lateral claspers somewhat spoon-shaped and inverted, but of approximately even width throughout, except at the extreme base; the uncus is double, the points slightly diverging and wide apart; in three out of four males under observation these points are completely bent under from the base, reaching nearly to the narrow stem of the lateral claspers; two small supplementary processes reach to the base of the uncus points; the opposing point beneath the uncus is short and double. *Exp. al.* 27 mm.

Five males collected at Goya, Corrientes, Argentine Republic, by Mr. L. K. Perrens.

ACROLOPHUS, *Poey*, Cent. Lep. Cuba (1832).

Type. *Acrolophus vitellus*, *Poey*.

Poey thus describes this genus:—

“Lingua nulla, antennæ simplices; palpi longissimi, recurvi, post tergum rejecti; articuli omnes usque ad apicem barbati; fimbria anali longa.

Genre *Acrolophe*, *Poey*.

“Point de langue distincte, antennes simples, palpes très longs, couchés sur le dos, avec tous les articles barbus jusqu’à l’extrémité; frange longue vers l’angle de l’anus.”

TABULATION OF SPECIES OF ACROLOPHUS, *Poey*.

A. Uncus single = *simulatus*, *Wlsm.*

B. Uncus double.

a. With supplementary lateral processes = *plumifrontellus*, *Clem.*

b. Without supplementary lateral processes.

i. Points of the uncus laterally compressed = *argentinus*, *Wlsm.*

ii. Points of the uncus not laterally compressed.

1. Lateral claspers spoon-shaped, widened in the middle

= *arizonellus*, *Wlsm.*

2. Lateral claspers slender, scarcely dilated.

AA. The points of the uncus acute = *texanellus*, *Cham.*

BB. The points of the uncus obtuse = *mortipennella*?, *Grote.*

Not included in the above tabulation (see p. 140):—*hamiferellus*, *Hüb.*; *cervinus*, *Wlsm.*; *vitellus*, *Poey*; *pallidus*, *Moschl.*

Acrolophus vitellus, Poey.

Poey, Cent. Lep. Cuba (1832).

"Alis luteo-fuscis, atomis anticarum nigris, costa nigra punctata."

Acrolophe vitellus.—Ailes d'un jaune brun; les supérieures couvertes d'atomes noirs, plus distincts sur la côte.

After this short description Poey refers to the figure, which shows the expanse of the wings to be about 20 mm. The neururation of the fore wings, which is also figured, proves that the apical vein is not forked. One specimen, Cuba.

Acrolophus simulatus, Wlsm. (Pl. VII., fig. 7).

Acrolophus? simulatus, Wlsm., Trans. Am. Ent. Soc., x., 168—9 (1882).

"Head rough; maxillary palpi none; tongue none; ocelli none. Labial palpi recurved over the head and part of the thorax; the second joint very long, roughly clothed with projecting scales beneath; third joint about half as long as the second, brush-like, with very long diverging scales on the under side. Antennæ strong, slightly pubescent, somewhat serrated on both sides, especially towards the apex. The anal appendages in the male much developed, the elongate ovate side claspers not reaching beyond the upper shield, which is triangular and pointed.* Fore wings with the costal margin arched, apex rounded, apical margin oblique, slightly convex, the dorsal margin somewhat convex, not emarginate before the rounded anal angle. Hind wings ovate, wider than the fore wings. Fore wings with twelve separate veins. The vein from the upper corner of the discal cell in the fore wings ends on the costal margin, and is not forked; cell of hind wings not closed. Alternate brown and whitish ochreous patches along the costal and dorsal halves of the fore wings, the paler portions apparently predominating rather more than in *Eulepiste cressoni*, the darker portions assuming the form of two angulated fasciæ; there are numerous raised bluish fuscous scales scattered especially about the darker patches. Hind wings and cilia dull brown. Expanse, 15 mm. Texas."

To the description of this species I should wish to add that the antennæ are not strictly serrated in struc-

* As seen from above.

ture, but have a serrated appearance caused by rings of slightly elevated scales. The lateral claspers slender, attenuated near the base, dilated downwards beyond; their upper edge being nearly straight, the tapering ends evenly rounded and slightly bent inwards. The uncus is single, with the point short and very little bent over. On re-examination of the cell of the hind wings I find a slender nervure closing it at the end.

Acrolophus plumifrontellus, Clem. (Pl. VII., figs. 5—5e).

Anaphora plumifrontella, Clem., Proc. Acad. Nat. Sci. Phil., 1859, 261; Tin. Nor. Amer., 39, 57, 59, 60; Z., Bei. z. Kennt., xxiii., 217 (1873).

A. bombycina, Z., Bei. z. Kennt., xxiii., 216—7 (1873).

“Labial palpi reddish brown. Thorax dull brown, tinged with reddish. Fore wings rubescent and maroon-brown intermixed, the former hue prevailing along the fold, at the base along costa and disc, dusted with dark brown; with a dusky or dark brownish spot on the end of the disc, one about the middle of the fold and another near the base. In some specimens these spots are quite indistinct. Hind wings dusky brown. Exp. al. 17 lines (= 36 mm.) Females not known.”

To this description we may add that the antennæ are compressed, not strictly serrated throughout, but only slightly so towards the tip; lateral claspers spoon-shaped, rather abruptly dilated and bent, with a pair of supplementary claspers above them, nearly as long as themselves; uncus double, the points parallel and divided.

I have four females from North Carolina, of which the following is a description:—

Labial palpi extended straight out beyond the head, roughly clothed but tapering to a point, 5 mm. long.

Fore wings full 6 mm. wide, with the costa slightly rounded; the apical margin also convex. *Exp. al.* 35 mm.

I have a considerable number of males from North Carolina which agree with a specimen compared with the type at Philadelphia in 1871. In Zeller's series are four specimens; two from Massachusetts, sent by Mr. Packard and labelled “*bombycina*, Z.”; a third from New York, with a label in Mr. Grote's handwriting, “*plumifrontella*, Clem.”; the fourth is labelled “*bombycina*” in Zeller's writing, and is a female, evidently of a different species, from Buenos Ayres, received from

Lederer.* We may thus safely conclude that *bombycina* and *plumifrontella* are one and the same species.

Although *plumifrontella*, being the first species described by Clemens under his genus *Anaphora*, has been regarded as his type, it does not so well agree with his generic description in the matter of serrate antennæ as *popeanella*, a fact which he emphasises by putting a heading in italics above the description of the latter species, "*Antennæ of ♂ distinctly serrated beneath.*" It will therefore be convenient to regard *popeanella* as the type of the genus *Anaphora*, and to place *plumifrontella* in *Acrolophus* under the distinguishing character of "Antennæ simple, compressed, or slightly serrated at the ends."† *Arcanella* falling into *Ortholophus* on account of its erect palpi.

Acrolophus mortipennellus, Gr.

Anaphora mortipennella, Gr., Can. Ent., iv., 137 (1872),
Can. Ent., xviii., 199; Wlsm., Trans. Am. Ent.
Soc., x., 167.

"♂. Labial palpi reflexed, thrown back over and as long as the dorsum of thorax, but not closely applied, thickly scaled, but less so than in allied species, fuscous outwardly along the sides, dead whitish on the inside. Head and thorax above dead or dirty whitish. Primaries pale, dirty whitish, with heavily sprinkled black scales on costal region at base, fading outwardly. A black scale patch at extremity of discal cell, and a larger one on submedian fold, below median vein, at about the middle of the wing; parallel with this at base a few black scales. There is a faint sprinkling of black scales over the median nervules, and about internal angle are two or three better marked black points on the margin. Four costal black marks before the apex, the first of these above discal spot; other costal marks towards the base of the wing. Fringes fuscous, faintly lined. Secondaries fuscous, much darker than, and strangely contrasting with, the pallid primaries. Beneath both wings fuscous with ochrey stains. The basal joint of labial palpi is prominently dark fuscous or blackish outwardly. Expanse, 25 mm. Central Alabama. June."

* Professor Zeller (Verh. z.-b. Ges. Wien, 1873) mentions his doubts about this South American female, but remarks that his scruples were removed by the fact that "the wing-veins correspond exactly" with those of the male from Massachusetts.

† See foot-note to p. 155.

"Smaller than *A. plumifrontella*, and easily recognised by its pallid discolorous fore wings, which are also a little more determinate at apices and internal angle than usual."

I am not absolutely certain about the identity of this species; the only specimen I have seen with that name attached was in a box sent to me for examination by Prof. Fernald. I understood it had been obtained from Miss Murtfeldt, but was very doubtful at the time whether it was truly Grote's *mortipennellus*. The memorandum I have about it shows that the apical vein was forked, which would probably throw it into the genus *Neolophus*, but its colouring differed considerably from the two species of that genus now described. In Mr. Grote's collection in the British Museum are several specimens with antennæ simple and apical vein not forked, which agree with the description, but are not labelled. These have the uncus double, not sharpened at the points, which slightly diverge; the lateral claspers long and slender, of almost even width beyond their narrow stem, and evenly rounded at the ends. I have little doubt that they represent the true *A. mortipennellus*, Grote.

Acrolophus cervinus, n. s. (Pl. VII., fig. 6).

Palpi, ♀, porrect, about 5 mm. long; whitish fawn-colour. *Head and thorax* the same. *Antennæ*, ♀, simple. *Fore wings* pale fawn-colour, the apex obtuse, apical margin oblique, costal margin straight and nearly parallel with the dorsal margin throughout; a few dark fuscous scales are sparsely sprinkled about the apical margin of the fore wings. *Abdomen and legs* of same colour as hind wings. *Exp. al.* 34 mm.

Two females collected by Belfrage in Texas on the 16th and 18th May (about 1868) respectively. I have not seen the male of this species, but, although probably closely allied to *plumifrontellus*, the narrow fore wings with straight costa and almost straight oblique apical margin show it to be distinct from that species.

Acrolophus argentinus, n. s. (Pl. VII., fig. 8).

Palpi, ♂, recurved and reaching beyond the middle of the thorax. *Antennæ* greyish ochreous, serrated. *Head, thorax, and palpi* dull greyish fuscous. *Fore wings* greyish fuscous, slightly mottled

with dark fuscous along the extreme costal margin, with a conspicuous dark brownish fuscous blotch on the middle of the fold, dilated upwards and blending with the ground colour of the wing its lower edge overlapping the fold, somewhat angulated and more clearly defined; beyond it is a less conspicuous small patch of the same colour at the end of the cell, followed by a few brownish ochreous scales; apical vein not forked. *Hind wings* pale brownish fuscous. *Abdomen* greyish fuscous; the anal appendages are of an ordinary form, the lateral claspers being somewhat narrowed towards the base, of even width beyond, the ends rounded; the uncus is double, evenly curved, somewhat laterally compressed, the points closely approximate and converging. *Exp. al.* 27 mm.

Hab. Two males sent by Mons. Ragonot labelled "Buenos Ayres."

Acrolophus texanellus, Chamb. (Pl. VII., fig. 9).

Chamb., Bull. U. S. Geol. and Geog. Survey, iv. (1), p. 79 (1878).

Chambers describes this species as follows:—

"Very distinct from *plumifrontella*, *popeanella*, and *arcanella*, Clem., and from *agrotipennella* and *mortipennella*, Grote; nor can I recognise it at all in *Scardina* or *Bombycina*, as described by Zeller. Palpi overarching the thorax, dark brown on the outward, luteous-brown on the inner surfaces. Antennæ compressed, straw-yellow; thorax dark grey-brown; fore wings brown, tinged with greyish yellow; the usual spot at the end of the disk indistinct; the other spots common to the wings of the other species I cannot find in this. One of them may be represented by an indistinct blackish line beneath the middle of the fold. Hind wings and abdomen fuscous-grey, like the thorax, and a little darker or rather less yellowish than the fore wings. Under surface of both wings greyish fuscous. Smaller than any specimens that I have seen of the other species, having an *alar expansion* of only nine lines. Bosque County, Texas."

To this I may add that the antennæ are compressed, flattened, having a roughened or serrated appearance caused by lines of slightly raised scales around each joint. The apical vein of the fore wing is not forked. The lateral claspers are narrow, elongate, slightly upturned from near the base, but straightened beyond, not spoon-shaped, but evenly rounded and slightly inverted at the apex. The uncus is double, straight, the points scarcely at all bent over, very short, not closely approximate, slightly diverging.

Acrolophus arizonellus, n. s. (Pl. VII., fig. 10).

Palpi, ♂, recurved, reaching beyond the middle of the thorax; ♀ short, slightly upturned, but scarcely reaching more than the length of the head beyond it. *Antennæ* subochreous, rather flattened, simple, having a very slight notched appearance owing to the scales on the upper side being a little raised at the joints. *Head, thorax, and palpi* pale brownish, with a slightly hoary appearance from an admixture of grey hairs. *Fore wings* greyish brown, sprinkled with dark brown scales; the costal margin very narrowly subochreous, with about six pairs of ill-defined dark brown dots along it; a conspicuous dark brown spot at the end of the cell and another on the fold at one-third from the base; below this in one specimen is a pale patch; the fringes slightly paler than the wing, but mottled with brown; under side pale brownish, the margins narrowly greyish ochreous. *Hind wings* brown, with pale tips to the fringes; under side pale brownish. *Abdomen*: the long hairy clothing of the base of the abdomen above is pale greyish ochreous, the abdomen itself inclining to brown; lateral claspers elongate, spoon-shaped, curved inwards, tending to form a slight angle at their upper and outward extremity; the uncus double, with the two points very slightly diverging and not widely separated. *Exp. al.* ♂, 25 mm.; ♀, 36 mm.

I have a male and two females from Arizona, collected by the late Mr. Morrison.

Acrolophus pallidus, Möschl.

Möschler, Verh. zool.-bot. Ges. in Wien, xxxi., p. 438, n. 138, t. 18, f. 46 (1881).

I am indebted to Mr. Kirby for the following translation of the original description, which I have not seen:—

“Intermediate in size between *P. hamiferella*, Hübn., Zutr., 441, and *scardina*, Zell., but may be at once distinguished from both by the ground colour of the wings. *Antennæ* ochreous (lehmgelb), *palpi* ochreous, the basal and middle joints dark brown at the sides. *Head and thorax* reddish ochreous, upper side of the abdomen dark umber-brown, under surface and pectus light ochreous; front legs dark brown on the outside and pale yellow on the inside; middle legs pale yellow, the tarsi dark brown on the outside; hind legs pale yellow, the tibiæ dark brown on the outside, and the tarsi spotted with brown on the outside. *Fore wings* reddish ochreous, the inner margin suffused with brownish towards

the anal angle, the costa marked with black dots, and the rest of the wing sparingly sprinkled with less distinct ones. Fringes of the colour of the wings, and brownish at the tips. Hind wings dark umber-brown, costa pale yellow, fringes greyish brown, divided by a greyish yellow line. Under side umber-brown. Fore wings dirty ochreous, in the marginal area, dusted with brown. Hind wings with the costa narrowly ochreous, and the hind margin still more narrowly edged with ochreous, and ochreous-yellow scaling is visible over the whole surface of the wings; marginal line finely brown. Fringes of the fore wings yellowish at the base and greyish yellow at the tip, the hind wings greyish yellow, with a more brownish line of separation. 33.6 mm.

“One female from Paramaribo.”

Acrolophus hamiferellus, Hb.

Pinaris hamiferella, Hb., Zutrage, figs. 441, 442;
Poey, Cent. Lep. I. Cub.

Hübner's description is short and somewhat vague: it may be rendered as follows:—“This remarkable species, whose palpi curve back over the head to the base of the abdomen, can at most be compared with *heraciella*, with which it has some resemblance in general habit, but scarcely any at all in the shape of the wings.” The locality given is Rio Janeiro, and, if the figure is correct, the apical vein is not forked, the antennæ are simple, and the expanse of the fore wings is 30 mm.

CÆNOGENES, n. g.

(*καινός* = new, *γένος* = race).

Type. *Cænogenes perrensella*, Wlsm.

Labial palpi, ♂, recurved, overarching the thorax; ♀ short, porrected. *Antennæ* serrated throughout on both sides and pilose. *Fore wings* with the costa slightly arched, apical margin oblique; the apical vein forked. *Hind wings* scarcely wider than the fore wings; uncus single.

This genus belongs to the section of the subfamily *Anaphorinæ*, which is distinguished by strongly recurved palpi. The structure of the antennæ at once separates it from the other genera in this section, which resemble it in having the apical vein of the fore wings forked. I believe it will be found to be represented in North

America. A specimen sent to me for examination some years ago by Prof. Fernald under the name *Anaphora mortipennella*, Grote, greatly resembled it in structure; the apical vein was forked, which is not the case with specimens in Grote's collection at the British Museum; these I think may be more correctly regarded as the types of that species.

Cænogenes perrensella, Wlsm. (Pl. VII., figs. X, X a).

Labial palpi dull whitish, recurved over the thorax, touched with fuscous on the outer sides at the extreme base. *Antennæ* luteous, serrated on both sides and pilose. *Head, thorax, and fore wings* dull whitish, the latter smeared with dark fuscous at the base of the costal margin with two patches of fuscous scales, the one at the commencement of the outer third of the fold, the other less conspicuous on the outer end of the cell; the surface of the fore wings is more or less sprinkled with short lines of fuscous scales, especially along their costal and apical portions. *Hind wings* very pale brownish fuscous. *Abdomen* the same; the lateral claspers are slender, slightly dilated posteriorly, obliquely terminated, the uncus single, bent over, not angulated. *Exp. al.* ♂, 15 mm.; ♀, 17 mm.

A pair received from Mr. L. K. Perrens, collected at Goya, Corrientes, Argentine Republic.

ANAPHORA, Clem., Proc. Acad. Nat. Sci. Phil., 1859, pp. 260—1; Tin. Nor. Am., pp. 56—7.

Type. *Anaphora popeanella*, Clem.

Dr. Clemens thus described the genus *Anaphora*:—

“Head hairy, concealed by the labial palpi in the ♂, free in the ♀. Ocelli none. Eyes small. Antennæ but little longer than the thorax, *serrated beneath, with the ends of the articles finely ciliated*. Maxillary palpi moderately long, scaly, and three-jointed in both ♂ and ♀. Labial palpi in the ♂* greatly developed, ascending and thrown back on the dorsum of the thorax, which they equal in length; the first article scaly, arctate and equal, to the superior margin of the eyes, and the two succeeding ones equal and furnished with abundant spreading hairs; in the ♀ short, not ascending above the eyes, articles nearly equal, the first and

* Mr. Stainton's note in his edition of Clemens' papers is as follows:—“This is printed ♀ in the original, but Dr. Clemens has marked in pencil that it should be ♂.”—H. T. S.

second hairy beneath, the third rather smooth and porrected. *Tongue wanting*. Wings exceeding the tip of the abdomen; the *anterior* with costa nearly straight, hind margin obliquely convex, inner margin nearly straight, but slightly emarginate above the interior angle; the *posterior* ovate, and both with rather short cilia."

The types of this genus, according to Clemens, are *popeanella*, *plumifrontella*, and *arcanella*; but of the latter he writes, "*Labial palpi shorter in ♂ than in the preceding; ascending, but not recurved.*" This description conflicts with his statement that in this genus the labial palpi equal the thorax in length, and if we take it that it is an essential character of the genus that they should do so, *arcanella* should properly be eliminated, but its exclusion renders a new generic description necessary. Taking the shorter palpi as the main character of the new genus, I have proposed to separate it under the name *Pseudanaphora*. The antennæ of *plumifrontella* are certainly not serrated in the strict sense of the word;* those of *popeanella* are distinctly serrated. *Popeanella* therefore is the species which most precisely agrees with the characters of the genus *Anaphora*, and may conveniently be taken as the type; while *plumifrontella* may more properly be relegated to the older genus *Acrolophus*. One correction should certainly be made in Clemens' tabulation of genera, "*Antennæ serrated beneath in both ♂ and ♀ Anaphora.*" The females of all the species appear to have simple antennæ. I can certainly answer for those of *popeanella* and *plumifrontella*.

TABULATION OF SPECIES OF ANAPHORA, Clem.

A. Uncus abruptly angulated.

- a. Lateral claspers with a notch at the ends = *bogotensis*, Wlsm.
- b. Lateral claspers without a notch at the ends.
 - i. Lateral claspers toothed on the under side = *ferruginea*, Wlsm.
 - ii. Lateral claspers not toothed on the under side.
 - 1. Points of the uncus distinctly separate = *popeanella*, Clem.
 - 2. Points of the uncus closely approximate = *morrisoni*, Wlsm.

* See p. 148. Prof. Zeller (Verh. z.-b. Ges. Wien., 1873) draws attention to this difference, and points out that whereas in one species the serrations are long and separate, in the other they are yet distinguishable under a microscope, but are shorter, broader, truncated at the end, and so closely pressed together that they are only divided from each other when the antennæ are bent backwards.

B. Uncus curved over.

- a. With supplementary processes on each side of the uncus.
 - i. These long and conspicuous = *ornata*, Wlsm.
 - ii. Short and inconspicuous = *tenuis*, Wlsm.
- b. Without supplementary processes on each side of the uncus.
 - i. Uncus long and slender, with lateral excrescences at its middle
= *uncigera*, Wlsm.
 - ii. Uncus without lateral excrescences at its middle.
 - 1. Lateral claspers evenly rounded at the ends
= *propinqua*, Wlsm.
 - 2. Lateral claspers terminated obliquely.
 - AA. Points of the uncus closely approximate = *pusillus*, Wlsm.
 - BB. Points of the uncus distinctly separate
= *macrogaster*, Wlsm.

Not included in the above tabulation (see p. 140):—*minima*, Wlsm.; *leucodosis*, Zell.

Anaphora morrisoni, n. s. (Pl. VIII., fig. 12).

Palpi recurved, reaching to the posterior margin of the thorax, purplish fuscous. *Antennæ* cinereous, stout, serrated, the ends of the articles being fringed with delicate hairs. *Head and thorax* greyish fuscous. *Fore wings* purplish fuscous, without conspicuous markings, the usual discal and apical spots being indicated by dark fuscous scales; apical vein not forked. *Hind wings* greyish fuscous-cinereous. *Abdomen* purplish fuscous; lateral claspers approximately of equal width throughout, evenly rounded at the ends; the uncus double, abruptly angulated above and bent straight down, with a small protruding knob at the angle; the points very closely approximate. *Exp. al.* 18 mm.

Florida (*Morrison*); two males.

Anaphora propinqua, n. s.

Palpi recurved, reaching to the posterior margin of the thorax, purplish fuscous. *Antennæ* cinereous, stout, serrated, the ends of the articles being fringed with delicate hairs. *Head, thorax, and fore wings* purplish fuscous, the latter without conspicuous markings, the usual discal and apical spots being indicated by dark fuscous scales; no ferruginous shade on fold or disc; a few irregularly distributed white scales, single or in groups of two to four, are noticeable on the outer portion of the wing and on the end of the fold; these appear to be loosely attached and very fugitive; apical vein not forked. *Hind wings* greyish fuscous-cinereous. *Abdomen* purplish fuscous; the lateral claspers of much the same form as in *morrisoni*. The uncus is double, arched over, not angulated, and

with the points closely approximate; differing very decidedly in form from that of *morrisoni*, from which species the whole insect is otherwise scarcely distinguishable. *Exp. al.* 18 mm.

Florida (*Morrison*); two males.

Anaphora pusilla, Z. (Pl. VIII., fig. 13).

Zell., Hor. Soc. Ent. Ross., xiii., 196—7 (1877).

“Parva; antennis ♂ arcte serratis, palpis præter basim teretibus, apice barbato; alis aut latis, rotundatis, brunnescentibus, macula venæ transversæ una, duabus plicæ margineque postico nigro-fuscis. ♂.”

The following is a translation of Zeller's description:—

“The smallest species known to me; with broad wings, and very similar in colour and pattern to my *A. scardina*; but it differs from all others in the naked palpi, only furnished with a tuft of hair-like scales at the end.*

“Smaller than *Depressaria applana*. Body brown. Palpi recurved to the end of the roughly-scaled thorax, cylindrical, clothed with short thickly appressed scales, very pale brownish, the basal joint thickened by longer raised scales, and for the most part dark brown; the terminal joint ends in a compressed brown brush of scales. Antennæ very pale brown, compressed, the under surface very closely serrated, pubescent. Abdomen brownish grey. Legs pale brownish grey, front femora and tibiæ brownish, the middle tibiæ only of this colour outwardly. Fore wings $3\frac{3}{4}$ lines long,† broad, rather widened behind, with a well-marked tip, and gradually rounded hind margin, pale greyish brown, palest on the inner marginal half; the hinder three-quarters of the costa is marked with obsolete dark dots. The markings consist of three

* To this character, somewhat prominently mentioned by Zeller, I am not disposed to attach any great importance. In a series of *A. popeanella* I find the palpi in many different positions, and greatly varying in the degree to which they are denuded. Some have precisely the appearance of Zeller's type of *A. pusilla*, and I cannot but regard the absence of long scales on the first and second joints of the palpi in that species as the result of denudation. These remarks do not apply to the genus *Stæberhinus*, Butler (Ann. Mag. Nat. Hist., 1882, p. 402), founded on a somewhat similar peculiarity. The palpi of the type of *Stæberhinus*, although probably not quite in a natural position when erect, are quite natural in having their stem smoothly scaled, the apical joint only brush-like.

† The type-specimen measures $15\frac{1}{2}$ mm.

blotches formed of coarse dark brown scales, one in the fold at one-third, a larger streak before the transverse nervure, which is larger than the first. The hind margin of its fringes are pretty thickly sprinkled with dark brown scales, except at the tip and anal angle. Hind wings rounded at the tips, greyish brown, paler than the fore wings. The terminal half of the hind marginal fringes, and the whole of the inner marginal fringes, light grey. The whole under side coloured like the hind wings above. One male taken at the lamp at Barranquilla, 31st December, by Baron von Nolcken."

To this I may add that the apical vein is not forked; the lateral claspers are dilated downwards below the middle, thence tapering upwards to an obtusely rounded point; the uncus is double, bent over the points, touching each other.

Anaphora minima, n. s.

Palpi overarching the thorax, reaching to its posterior margin. *Antennæ* greyish ochreous, strongly serrated and fringed with fine hairs. *Head, thorax, and palpi* greyish ochreous; the palpi dark fuscous beneath at the base. *Fore wings* greyish ochreous, reticulated with dark fuscous; a spot of ferruginous-brown scales at the end of the cell. *Hind wings and fringes* cinereous. *Abdomen* cinereous. The anal appendages in this specimen are too much injured to admit of description, but in other respects the specimen is extremely perfect. *Exp. al.* 13 mm.

Hab. I am indebted to Mr. J. H. Leech for a single male from Ceara, Brazil, collected in August, 1884. It is allied to *pusilla*, but differs not only in its markings, but in its narrower fore wings and smaller size: its palpi are amply clothed throughout.

Anaphora leucodocis.

Zell., Hor. Ent. Ross., xiii., p. 197—8, no. 2 (1877).

Parva, antennis setaceis, palpis ultra thoracem reflexis, valde pilosis; alis aut acuminatis, griseo-lutescentibus, stria ex basi in apicem perducta alba, antice nigro-marginata. ♂.

Translation of original description (*Mr. Kirby*):—

"This species, which stands next to *A. pusilla* in size, is distinguished from all others by the sharply-pointed fore wings, and the straight white longitudinal streak, which is produced to the tip. Body pale clay-colour, or pale greyish clay-colour. The pointed palpi are clothed with long thick hair to the tip, and are

recurved over the whole thorax, and are paler on the side turned towards the back. Antennæ slender at the tip, so shortly serrated as to appear cylindrical, slightly pubescent. Anal tuft as pale as the legs. Fore wings 5 lines long,* rather narrow, pointed, with the hind margin curving back, pale ochreous-grey, more or less shading into yellowish ochreous, and irregularly sprinkled with scattered black scales. A white longitudinal stripe runs from the shoulder to the tip of the wing; its front edge is irregularly bordered with black, except at the base, and a black transverse streak extending from this border runs nearly across it. The ground colour between this and the costa is rather dark. One specimen has five brown dots along the inner margin, and another has a continuous series of brown particles. Fringes not much paler than the ground colour. Hind wings pointed, but ending much more obtusely than the fore wings; dark brownish. Fringes paler round the tips of the wings, and on the inner margin. Under side unicolorous dark grey-brown, but the abdominal area of the hind wings and the adjacent fringes conspicuously pale. One of the specimens in Staudinger's collection is from Cuba, and the other two are perhaps from Brazil."

This species, having the antennæ shortly serrated, is probably rightly placed in the genus *Anaphora*.

Anaphora bogotensis, n. s. (Pl. VIII., fig. 14).

Palpi recurved, reaching to the posterior edge of the thorax. *Antennæ* stout, strongly serrated. *Head, thorax, and palpi* greyish brown. *Fore wings* greyish brown, blotched and sprinkled with brownish fuscous, a brownish fuscous spot on the end of the cell, another more conspicuous about the middle of the fold, preceded by a smaller one of the same colour, a row of indistinct brownish fuscous spots along the costal margin, others less noticeable along the apical margin, with a line of three extending obliquely inwards from below the apex. *Hind wings* brown, with somewhat paler fringes. *Abdomen* greyish brown; lateral claspers rather wide, slightly depressed, and decidedly concave at the ends; the uncus is double, abruptly angulated above, the angle projecting in an obtuse point, the points or hooks below diverging; at the base of the uncus above is a small supplementary point or protuberance from the end of the same segment. *Exp. al.* 28 mm.

Hab. Eleven males from Zeller's cabinet, collected

* If English lines are intended this would give an expanse of about 21 mm. when measured in the same manner as *A. pusillus*.

at Bogota by Baron von Nolcken, and labelled in Zeller's handwriting, "*Anaphora* sp. *bei scardina*." This species is in appearance almost undistinguishable from the variety of *scardina* described as *popeanella* by Clemens, but the concave ends of the abdominal claspers enable it to be instantly recognised.

Anaphora ferruginea, n. s. (Pl. VIII., fig. 15).

Palpi reaching as far as the posterior edge of the thorax. *Antennæ* slightly paler than the palpi, naked, stout, and shortly pectinate anteriorly. *Head, thorax, and palpi* ferruginous. *Fore wings* ferruginous, slightly blotched above the fold and on the cell with fuscous, also sprinkled towards the costal and apical margins with small groups of fuscous scales; fringes purplish fuscous, slenderly tipped with whitish, especially at the anal angle. *Hind wings* brownish. *Abdomen* the same; lateral claspers dilated in the middle, narrowed towards the apex, which is evenly rounded; about their middle on the under side is a tooth-like projection turning inwards and resembling the structure of these organs in the Indian genus *Alavona*, Wlk.; the uncus is double, flattened above, and abruptly angulated, the angle projecting somewhat over and beyond the points; these are triangular when viewed laterally, and are sharply pointed and divergent. *Exp. al.* 31½ mm.

A single male in Zeller's collection, labelled as collected by Baron von Nolcken at Bogota. It is very distinct both in colour and structure from other known species of this genus.

Anaphora popeanella, Clem. (Pl. VIII., figs. 11, 11 a, 11 b, 11 c).

Anaphora popeanella, Clem., Proc. Acad. Nat. Sci. Phil., 1859, 261; Tin. Nor. Amer., 57—8; Gr., Can. Ent., iv., 137 and 143; Z., Bei. z. Kennt., 1873, 215.

A. agrotipennella, Gr., ♂, Can. Ent., iv., 137; ♀, 143 (1872), xviii., 199; Wlsm., Trans. Am. Ent. Soc., x., 167; Murtf., Can. Ent., viii., 185.

A. scardina, Z., Bei. z. Kennt., xxiii., 215—216 (May, 1873).

"*Antennæ* of the ♂ distinctly serrated beneath. Labial palpi dark brownish, whitish? at the tip in the ♀. Thorax dull brownish in the ♂, with the tegulæ tipped behind with grey; whitish? tinged with brown in the ♀. Fore wings brownish

luteous or dull reddish brown, with luteous or yellow along the fold and inner margin; a spot on the disc and one on the middle of the nervules of the same hue, with a dark brown spot on the fold beneath the median vein, most frequently semicircular, with a short dark brown streak at the base on the submedian vein, and another parallel to it beneath the median. The anterior margin striated from the costa with dark brown, with a subterminal row of dark brown spots *above the branches of the median vein*, and the ends of the nervules dotted with the same hue; cilia pale yellowish brown. Hind wings brownish yellow, cilia the same. Exp. al. 12 to 18 lines ($= 25\frac{1}{2}$ —38 mm). Male and female alike. Texas."

Now, so far as the antennæ and palpi are concerned, Clemens' observation "male and female alike" is certainly misleading. The antennæ of the male are stout and deeply serrated, "with the ends of the articles finely ciliated," as described by him. Those of the female are simple. The lateral claspers are elongate, spoon-shaped, scarcely dilated, and evenly rounded. The uncus double, angulated above, and bent over at right angles, with a conspicuous thickening at the angle.

Mr. Grote, in describing his *agrotipennella*, points out that this differs from *popeanella* as follows:—"A. *popeanella* disagrees with A. *agrotipennella* by, among other characters, its being described as luteous along the inner margin."

An examination of my extensive series shows that both varieties belong to the same species. The anal appendages do not differ, and intermediate variations of colouring are noticeable. There can be no doubt that they differ only in the extension of the pale colour of the fold in the direction of the dorsal margin. In confirmation of this view it is noticeable that both forms are labelled in Zeller's collection "*Anaphora scardina*, Z."; the typical form of *agrotipennella* received from Grote, as well as from Boll from Texas, being placed in the same series, and evidently regarded by Zeller as synonymous.

I have two specimens compared with what was supposed to be the type of *popeanella* at Philadelphia; a third specimen bred by Miss Murtfeldt, and received from her under the name *agrotipennella*, Gr.; one specimen from Mons. Ragonot from Boll's collection and labelled "*scardina*, Texas"; several similar specimens

from Morrison from North Carolina; in all twenty-two males and one female, including those from the Zeller cabinet. A female in the British Museum, in Grote's collection, measures 38 mm., and in colour and markings resembles the typical form of the male.

Anaphora ornata, n. s. (Pl. VIII., fig. 16).

Palpi recurved, reaching nearly to the posterior margin of the thorax; greyish fuscous, having a speckled appearance owing to the scales being tipped with dirty whitish. *Head and thorax* of the same colour as the palpi. *Antennæ* dull ochreous, stout, and strongly serrated. *Fore wings* brownish fuscous, blotched with whitish ochreous, especially upon and below the fold; slightly beyond the middle of the fold is a conspicuous quadrangular dark fuscous patch, its upper edge blending with the ground colour of the wing above it, its lower edge straight and clearly defined; between this patch and the base of the wing is a smaller dark spot of the same colour, the dorsal margin below the pale ochreous fold is shaded with brownish fuscous, and some small dark spots are evenly distributed along the costal margin; a small ill-defined pale ochreous patch beyond the outer edge of the cell; the whitish ochreous colour of the fold extends in an undulating line above it before and after the quadrangular dark patch; apical vein not forked. *Hind wings* brown; fringes the same. *Abdomen* greyish fuscous; the anal appendages are very peculiar: lateral claspers spoon-shaped and evenly rounded at the ends, tending slightly upwards; the uncus double, curved over, with the points converging at the apex; two supplementary lateral processes extend from the margin of the penultimate segment, and are of even width, but slightly turned up at the ends, reaching to half the length of the uncus. *Exp. al.* 25 mm.

A single male in Zeller's collection, taken by Baron von Nolcken probably in Columbia, but no locality is marked on the specimen. I have received from Mons. Ragonot for examination a specimen from Buenos Ayres, which has a somewhat similar pattern of colouring on the fore wings, but differs completely in the form of the anal appendages.

Anaphora uncigera, n. s. (Pl. VIII., fig. 17).

Palpi overarching thorax and reaching to posterior margin. *Antennæ* pale brownish, strongly serrated. *Head, thorax, and*

palpi pale brown. *Fore wings* pale brown, rounded at the apex; the costa slightly arched, pale brown, sparsely sprinkled with dots of darker brown, especially along the costal margin; the extreme base of the costa dark brown; there is but a slight indication of the usual discal spot; apical vein not forked. *Hind wings* darker than the fore wings, brownish fuscous; fringes inclining to greyish; on the under side the hind wings are paler than the fore wings. *Abdomen* greyish fuscous. The peculiarity of this species consists in the anal appendages: the lateral claspers are narrow at the base, dilated into a wide triangle posteriorly, having a distinct projecting point at their lower apex; the uncus is much bent over, consisting of two very long slender converging points, thickened below their middle with irregular knobs on the outer side. *Exp. al.* ♂, 20 mm.; ? ♀, 23½ mm.

One male and one female in Zeller's cabinet, collected by Baron von Nolcken at Bogota. The form of the uncus distinguishes this species from all its known congeners.

The female, if I am right in believing it to belong to this species, has the *palpi* projecting forward about 1½ mm., not recurved. The spot at the end of the cell more apparent than in the male.

Anaphora tenuis, n. s. (Pl. VIII., fig. 18).

Palpi recurved, reaching as far as the posterior edge of the thorax; fuscous at the sides, tending to ochreous or brownish ochreous beneath (the under side being turned upwards their paler colour renders them conspicuous). *Antennæ* brownish ochreous, serrated, the end of each article fringed with slender hairs. *Head and thorax* purplish fuscous. *Fore wings* purplish fuscous, with scarcely any markings; such as there are in some specimens consist of a dark spot on the disc, and a larger one on the fold preceded by a darkish patch; in one variety collected by Boll in Texas, which I believe to belong to this species, the dark spot on the fold assumes the form of a rather conspicuous triangular blotch. *Hind wings* brown, with scarcely paler fringes. *Abdomen* the same; much more slender than in the species allied to *plumifrontella*; lateral claspers somewhat attenuate near the base, elongate-ovate beyond, evenly rounded at the ends; the uncus is curved over, not angulated, the two points very short, slightly diverging, with a pair of small supplementary lateral processes at its base. *Exp. al.* 24 mm.

Seven males from North Carolina, collected by Morrison; there is also a single male in Zeller's collection without locality.

Anaphora macrogaster, n. s. (Pl. VIII., figs. 19, 19 a).

Labial palpi, ♂, recurved, reaching nearly to the posterior edge of the thorax; ♀ erect, reaching somewhat above the elongate basal joint of the antennæ. *Antennæ* ♂, bipectinate, the pectinations wider at their bases than outwardly, fringed with short hairs; subochreous; ♀ simple. *Head, thorax, and palpi* mottled greyish and brownish fuscous. *Fore wings* brownish fuscous, slightly mottled with paler along the costal and apical margins; with an elongate patch of dull whitish running irregularly along the length of the fold; a smaller spot of the same colour immediately beyond the outer end of the cell. *Hind wings* brown; the fringes scarcely paler. *Abdomen* the same colour as the hind wings, that of the male about 7 mm., of female 10 mm.; the lateral claspers of the male spoon-shaped, scarcely inverted, dilated outwardly, but tapering slightly upwards and rounded at the apex; uncus double, the points parallel and somewhat closely approximate. *Exp. al.* ♂, 22 mm.; ♀, 29 mm.

Three males and three females from Arizona, collected by Morrison.

FELDERIA, n. g.

Type. *Acrolophus cossoides*, F. & R.

Labial palpi overarching the thorax, roughly clothed with long loose scales. *Maxillary palpi* 3-jointed, rather long and slender. *Antennæ* strongly bipectinate, the pectinations fringed with delicate hairs. *Fore wing*, the form of the wings and neuration as in *Anaphora*. *Abdomen*, lateral claspers of varying form, more or less spoon-shaped.

TABULATION OF SPECIES OF FELDERIA, Wlsm.

A. Uncus single = *pygmæa*, Wlsm.

B. Uncus double.

a. Lateral claspers squared at the ends = *doeri*, Wlsm.

b. Lateral claspers rounded at the ends.

i. Uncus abruptly bent over = *maculatus*, Wlsm.

ii. Uncus not abruptly bent over.

1. Lateral claspers spoon-shaped, tapering posteriorly

= *filicicornis*, Wlsm.

2. Lateral claspers with edges parallel, not tapering posteriorly

= *cossoides*, F. & R.

Felderia doeri, n. s. (Pl. VIII., figs. 20, 20 a, 20 b).

Labial palpi overarching the thorax, and reaching beyond its posterior margin. *Antennæ* subochreous, strongly bipectinate, the pectinations fringed on both sides with slender hairs. *Head, thorax, and palpi* mottled cinereous and greyish brown. *Fore wings* cinereous, blotched and mottled with greyish brown throughout; the costa obscurely spotted with fuscous from base to apex; a conspicuous brownish fuscous spot at the end of the cell, a more conspicuous spot of the same colour beyond the middle of the fold, preceded by a smaller one also on the fold. Under side with a slight ochreous tinge about apex and apical margin. *Hind wings* cinereous-brown. *Abdomen* greyish brown; anal tuft paler; the lateral claspers of peculiar form, being thickened at the base, attenuated and abruptly arched upwards in the middle, with the dilated spoon-shaped apex depressed and terminated in several small tooth-like processes, evidently adapted for firm grasping; the uncus is double, curved, but with the points parallel and closely approximate.

Received from Herr H. Doer; Petropolis, near Rio Janeiro, Brazil. Five males in my collection.

Felderia maculata, n. s. (Pl. VIII., fig. 21).

Palpi overarching the thorax and reaching to its posterior edge. *Antennæ* subochreous, strongly bipectinate, the pectinations fringed with slender hairs. *Head, palpi, and thorax* dull umber. *Fore wings* dull umber, with a few brownish ochreous scales at the base of the fold and costal margin; a conspicuous whitish ochreous patch occupies the apical portion of the wing, reaching to the middle of the apical margin; a projecting point of umber scales encroaches upon it from the costa at its inner edge; a few whitish ochreous scales are scattered throughout the umber fringes. *Hind wings* umber-brown, slightly paler than the fore wings. *Abdomen* the same; the lateral claspers are dilated from their base upwards, but of equal width beyond it; they are rounded at the apex, and indented along their inner edge; the uncus is abruptly angulated above, the two points being very long and reaching straight downwards to beyond the ends of the claspers; they are closely approximate and parallel, except at their extreme points, which are slightly divergent. *Exp. al.* 35 mm.

Hab. Two males received from Herr H. Doer from Petropolis, near Rio Janeiro, Brazil.

Felderia filicicornis, n. s. (Pl. VIII., figs. 22, 22 a).

Labial palpi strongly recurved, reaching to the posterior margin of the thorax. *Antennæ* strongly bipectinate, the pectinations being slightly narrower at their bases, wider outwardly, subochreous. *Head, thorax, and palpi* thickly clothed with fuscous hair-like scales, tipped with hoary white. *Fore wings* mottled greyish and brownish fuscous; about twelve brownish fuscous ill-defined dots along the costal margin, not arranged in pairs, but distributed at approximately equal distances; a brownish fuscous spot at the end of the cell, from which a streak of the same colour extends obliquely downwards to the anal angle; fringes greyish fuscous, speckled with whitish. *Hind wings* brownish, with a faint purplish tinge; fringes pale greyish brown. *Abdomen* brownish. *Under side of all the wings* pale cinereous, the costal margin of the fore wings not defined by a pale line as in *arizonella*. *Exp. al.* ♂, 26 mm.; ♀, 27—31 mm. The lateral claspers of the male spoon-shaped, widened in the middle, tapering outwardly, and rounded at the apex; the uncus double, the two points parallel, shorter and wider apart than in *arizonellus*.

Hab. One male and five females from Arizona, collected by Morrison.

This species has much the appearance of *arizonella*, Wlsm., but the peculiar form of the antennæ in the male at once serves to distinguish it.

Felderia cossoides, Rog. (Pl. VIII., fig. 23).

Feld. and Rog., Nov., t. cxxxix., f. 35.

A single specimen of this species in Zeller's collection is in poor condition, scarcely admitting of any description of the markings. No description is published with the figure, the only remark made being "*Pinaris hamiferella*, Hb., Zutr., 441, etiam hujus generis esse videtur." The figure represents a not very dark reddish brown species with hind wings approximately the same colour as the fore wings, with a dark spot on the end of the cell, and another before and below it lying above the commencement of the outer third of the fold; there is also a series of small darkish spots around the costal and apical margins, the palpi rather paler than the wings, and the antennæ obviously pectinate.

In all these particulars Zeller's specimen may fairly

be taken to agree, so far as its condition enables a comparison to be made. The antennæ are very strongly bipectinate, each tooth fringed with slender hairs on both sides. The lateral claspers are elongate, evenly rounded at the end, and of even width throughout, so far as they can be seen beyond the terminal segments of the abdomen. The uncus is double, with the points parallel, but not closely approximate. It measures 32 mm. in the expanse of the fore wings.

The specimen figured by Rogenhofer came from Ypanema, and was collected by Natterer; the label on Zeller's specimen shows that it came from the same locality.

Felderia pygmæa, n. s. (Pl. VIII., figs. XX, XXa).

Palpi recurved, overarching the thorax, clothed with long mixed cinereous and brownish fuscous scales. *Antennæ* strongly bipectinate, the pectinations placed widely apart, fringed with slender hairs. *Head and thorax* cinereous, strongly shaded with brownish fuscous. *Fore wings* with the costa somewhat arched; the apex depressed, rounded; the apical margin oblique, ground colour cinereous, suffused with brownish fuscous, the darker shades of which are concentrated along the costal margin and in four separate patches on the wing-surface; the first of these is situated at one-third from the base on the costal half of the wing, a smaller patch of the same colour lying below it beneath the fold; beyond this, near the middle of the dorsal margin, is a similar patch, a more conspicuous one being placed on the outer end of the discal cell; each of these patches is followed by a few scales of the pale cinereous ground colour of the wing; there are also some few inconspicuous dark spots upon the apical portion of the wing and about the apical margin, but none of the markings are clearly defined. *Hind wings* pale brownish fuscous. *Abdomen* the same, slightly darker posteriorly; lateral claspers slender, somewhat dilated and upturned posteriorly; uncus curved, single. *Exp. al.* 12 mm.

A single male from Goya, Corrientes, Argentine Republic, collected and sent to me by Mr. L. K. Perrens. This species is particularly interesting, as showing that the genus *Felderia*, characterised by its pectinate antennæ, like its near allies *Anaphora* and *Acrolophus*, is represented by species of minute size.

ORTHOLOPHUS, n. g.

(Ορθος = straight, λοφος = crest).

Type. *Ortholophus variabilis*, Wlsm.

Labial palpi, ♂, erect, not recurved over the head, the joints thickly clothed; ♀ porrected. *Maxillary palpi* short, depressed. *Antennæ* simple, or slightly serrated. *Ocelli* none. *Fore wings* elongate, narrower in proportion to their length than in *Anaphora* or *Acrolophus*; neuration as in *Acrolophus*; apical vein of the fore wing not forked; uncus single or double.

Ortholophus variabilis, n. s. (Pl. VIII., figs. 24, 24 a, 24 b, 24 c).

Labial palpi, ♂, erect, not recurved, dirty whitish, more or less tinged with greyish fuscous, with which they are sometimes entirely suffused, about $3\frac{1}{2}$ mm. long, separately tufted on each joint; ♀ porrect, standing out about 2 mm. beyond the head. *Antennæ* subochreous; ♂ serrated; ♀ simple. *Head, thorax, and fore wings* dirty whitish, sprinkled and suffused with greyish fuscous, varying with the colour of the fore wings. *Fore wings* elongate, narrow, the costa slightly rounded, apex rounded, apical margin oblique, convex, presenting several varieties of colouring; apical vein not forked. Var. *a.* dirty whitish, mottled along the apical and costal margins with greyish fuscous; a triangular fuscous patch overlapping the fold, and more or less connected with a spot of the same colour at the end of the cell; fringes mottled alternately greyish fuscous and dirty white both in fore and hind wings. Var. *β.* greyish fuscous, with scarcely any admixture of whitish scales, the darker fuscous patches distinctly visible, and a few brownish ochreous scales on the disc. Var. *γ.* pale greyish fuscous, the dark patches almost obsolete, with no admixture of whitish scales, except in the fringes. *Hind wings* in all the varieties brownish, with a slight purplish tinge; the fringes scarcely paler. *Abdomen* pale greyish fuscous; lateral claspers of nearly even width from the base outwards, slightly angulated downwards about their middle, the ends rounded, but more so below than above; uncus single, evenly bent over, but very little longer than its opposing branch coming from beneath it. *Exp. al.* ♂, 24—27 mm.; ♀, 30—34 mm.

I have a considerable series of this species collected by Morrison in Arizona, and had always regarded it as equivalent to *mortipennella*, Gr., the only described species with whitish fore wings and darker hind wings;

but Mr. Grote's remark that in his species the labial palpi reach as far back as the dorsum of the thorax proves that it is distinct.

PSEUDANAPHORA, n. g.

Type. *Anaphora arcanella*, Clem.

Labial palpi ascending, not recurved to the thorax. *Maxillary palpi* scaled, 3-jointed, of moderate length. *Antennæ* simple, or slightly serrated towards their apex. *Fore wings* with the costa scarcely arched, of approximately even width throughout, except at the extreme base; the apical margin oblique, slightly convex; the apical vein not forked. *Hind wings* slightly wider than the fore wings, with the costal margin arched; apical vein not forked; uncus double.

The single species known to Dr. Clemens was placed by him in his genus *Anaphora*, although differing very widely from the other types of the genus in the form of the labial palpi; these, as noticed by that author, are shorter than in other species of *Anaphora*, and, according to his description, are "ascending but not recurved." I find the second joint is somewhat recurved, so that, although the palpi have an erect appearance, they differ considerably from those of *Ortholophus*, in which the first joint is so long as to enable the other two to stand erect above the head. Although the second joint is absolutely straight, Clemens' *Anaphora arcanella* differs also in structure from my genus *Neolophus* by having the apical vein of the fore wings not forked, although in other respects it greatly resembles it. I have a second species obviously belonging to this genus, represented by a single specimen in Zeller's collection from North America, but without a special locality label. It differs from *arcanella* chiefly in the form of the anal appendages, and in the greater width of the fore wings. The specimen is not in good condition.

Pseudanaphora arcanella, Clem. (Pl. VIII., fig. 25).

Anaphora arcanella, Clem., Proc. Acad. Nat. Sci. Phil., 1859, 262; Tin. Nor. Am., 57, 58, 60; Gr., Can. Ent., iv., 143; Chamb., Bull. U. S. Geol. and Geog. Survey, iv., 79; Wlsm., Trans. Am. Ent. Soc., x., 167.

"*Labial palpi shorter in the ♂ than in the preceding (popeanella and plumifrontella) ascending, but not recurved.* Palpi luteous-brown in front, dark brown externally. Thorax dark brown, almost blackish. Fore wings dark brown, with an obscure purplish hue; with luteous-brown on the disc and in the fold, interrupted by a blackish brown, nearly square, submedian spot in the fold, and a small one near its base of the same hue,—sometimes merely a few blackish brown scales,—with an irregular blackish brown spot on the end of the disc, and the costa and apical portion of the wing dusted and dotted, sometimes striated with blackish brown. Hind wings dark brown, tinged with black. Exp. al. 12 lines (= 25 mm.). Female not known."

To this may be added:—Antennæ slightly serrated towards apex. Fore wings with 12 veins, all separate; apical vein not forked. Hind wings 8 veins, also separate, 7 and 8 parallel. Lateral claspers slender, widening slightly towards their posterior extremities, which are rather square. Uncus double, rather abruptly bent over, but not angulated, the points parallel, separated by about the width of one of them.

STÆBERHINUS, *Butl.*, Ann. Mag. N. H., April, 1881, 402.

Type. *Stæberhinus testaceus*, Butl.

"*Urbaræ* affine genus *Ypsolopho** simile, differt autem palpis maris permagnis crassis, scopis terminalibus expansis, feminae palpis simplicibus longulis porrectis; antennis crassis."

"The development of the male palpi in this genus is considerably greater than in the little South American genus to which Walker has given the name of *Urbara*: this organ curves upwards far above the head in *Stæberhinus*, and is broadly fringed at the back, so as to present the appearance of a hearth-broom."†

Stæberhinus testaceus, Butl.

Butl., Ann. Mag. N. H., April, 1881, 402—3.

"Primaries above pale testaceous; six dark brown spots arranged in pairs, two at the base, two just beyond the basal third, the fifth (which is largest) just below the end of the cell, and the sixth in an oblique line with it on the dorsal margin; two or three widely

* "*Y. verbascellus* especially."

† "The development is quite different from that in *Anaphora*, being quite slender and only emitting divergent bristles from the back of the last joint."

separated brown costal spots, and an arched series close to the outer margin; a slender brown marginal line, and a paler line near the base of the fringe, beyond which it (the fringe) is almost pure white; secondaries silvery white, with faint cupreous reflections; an indistinct marginal testaceous line; body testaceous; palpi with the terminal bristles dark brown; abdomen silvery at the base. Primaries below greyish testaceous, with a narrow buff-coloured border; fringe silvery; secondaries with greyish testaceous costal area; otherwise as above; body below shining golden buff. Expanse of wings, 6 lines. A pair. Honolulu."

The antennæ are simple, not serrated.

EXPLANATION OF PLATES VII. & VIII.

PLATE VII.

- FIG. 1. *Neolophus furcatus*, Wlsm.; 1*a*, head of ♂; 1*b*, terminal appendages of ♂.
Eulepiste maculifer, Wlsm.; 1*c*, head of ♂; 1*d*, head of ♀.
2. *Hypoclopus griseus*, Wlsm.; terminal appendages of ♂; 2*a*, side view of head of ♀; 2*b*, neuration of fore wing.
3. *Thysanoskelis hirsutus*, Wlsm.; 3*a*, head of ♂; 3*b*, tarsal joints of hind leg; 3*c*, terminal appendages of ♂.
4. *Ankistrophorus corrientes*, Wlsm.; 4*a*, head of ♂; 4*b*, terminal appendages of ♂.
5. *Acrolophus plumifrontellus*, Clem., ♂; 5*a*, head of ♂; 5*b*, head of ♀; 5*c*, terminal appendages of ♂; 5*d*, terminal appendages of ♀; 5*e*, neuration of fore wing.
6. *A. cervinus*, Wlsm.; head of ♀.
7. *A. simulatus*, Wlsm.; terminal appendages of ♂.
8. *A. argentinus*, Wlsm.; " " "
9. *A. texanellus*, Chamb.; " " "
10. *A. arizonellus*, Wlsm.; " " "
- X. *Canogenes perrensellus*, Wlsm.; antenna of ♂; X*a*, terminal appendages of ♂.

PLATE VIII.

- FIG. 11. *Anaphora popeanella*, Clem., ♂; 11*a*, head of ♂; 11*b*, head of ♀; 11*c*, terminal appendages of ♂.
12. *A. morrisoni*, Wlsm.; terminal appendages of ♂.
13. *A. pusilla*, Z.; ,, ,, ,,
14. *A. bogotensis*, Wlsm.; ,, ,, ,,
15. *A. ferruginea*, Wlsm.; ,, ,, ,,
16. *A. ornata*, Wlsm.; ,, ,, ,,
17. *A. uncigera*, Wlsm. ,, ,, ,,
18. *A. tenuis*, Wlsm.; ,, ,, ,,
19. *A. macrogaster*, Wlsm., ♀; 19*a*, terminal appendages of ♂.
20. *Felderia doeri*, Wlsm.; 20*a*, head and antennæ of ♂; 20*b*, terminal appendages of ♂.
- XX. *F. pygmaea*, Wlsm.; terminal appendages of ♂; XX*a*, antenna.
21. *Felderia maculata*, Wlsm.; terminal appendages of ♂.
22. *F. filicicornis*, Wlsm.; terminal appendages of ♂; 22*a*, antenna of ♂.
23. *F. cossoides*, F. & R.; terminal appendages of ♂.
24. *Ortholophus variabilis*, Wlsm., ♂; 24*a*, head of ♂; 24*b*, head of ♀; 24*c*, terminal appendages of ♂.
25. *Pseudanaphora arcanella*, Clem.; terminal appendages of ♂.



Walsingham, Thomas de
Grey,

↑

↑

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