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**Pellenes, and Some Other Genera of the
Family Attidae.**

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***Pellenes* and Some Other Genera of the Family Attidae.**

***Pellenes* E. S. 1876.**

The cephalothorax is high, convex, and a little longer than wide, with the cephalic plate inclined, and the thoracic part dilated, and somewhat widened out from above downward. The quadrangle of the eyes is from one-fourth to one-third wider than long, occupies two-fifths of the cephalothorax, and is usually wider behind than in front, although in some cases it is equally wide in front and behind or wider in front. The front eyes form a straight or slightly curved row, the middle eyes being near together and about twice as large as the lateral, from which they are distinctly separated. The second row is about halfway between the first and the third; the third, is nearly as wide as the cephalothorax at that place, the eyes being almost equally distant from each other and from the lateral borders. The labium is at least as wide as long and is half as long as the maxillae. The falces are vertical, parallel and rather weak, with small fangs. Among the European species the legs are 1342 in the males and 3142 in the females, but among the American, the third and fourth are most commonly longer than the first and second in both sexes. The male palpus is very constant in form, the bulb being short and rounded.

The males of *Pellenes* have, usually, some peculiar modification of form, color, or ornament, appearing in the first and third legs. These fringes, enlargements, and markings are used to attract and delight the female during courtship, the posturing and dancing being such as to show off every beauty to the greatest advantage.* They make the identification of the males comparatively easy, while the females resemble each other so closely as to make it very difficult to distinguish them. The young males are like the females until within one or two moults from maturity.

*An account of the courtship of *P. splendens* and *P. Howardii* may be found in our paper, *Sexual Selection in Spiders of the Family Attidae*, Occ. Pap. Nat. Hist. Soc. of Wisconsin, Vol. 1, No. 1, 1899, and Vol. 1, No. 3, 1900.

All the species which we have formerly described under *Habrocestum* we now place in *Pellenes*, M. Simon, who is the author of both genera, having assured us that this is their proper place, while *pulex* Hentz, which we had supposed to belong to *Saitis*, is classed by him under *Habrocestum*. The species resemble each other closely in their form, and often in their patterns.

To make this paper as complete as possible we include in the key such of Mr. Banks' species as he has been able to lend to us. Mr. Banks thinks the spider which we describe as *P. auratus* H. is a new species, but in this we disagree with him. He also says (Jour. N. Y. Ent. Soc. p. 92, June, 1895) that his species *Habrocestum latens*, 1892 (together with *Ergane taeniata* Keys, and *Hasarius Hoyi* P.), is a synonym of *Ergane borealis* Blkw. *H. latens* Bks. must not be confused with our *Habrocestum latens* 1896, which we now place under *Pellenes*.

The first species described by M. Simon under the genus *Pellenes* is *lapponicus*, which may therefore be regarded as the type.

So far as we have seen the species described by Koch and Keyserling, in *Arachniden Australiens*, under the name *Habrocestum*, we think them nearer to *Saitis* E. S. than to *Pellenes* or *Habrocestum*.

We hope that the key, made from the American species of *Pellenes* in our collection, will lessen the difficulty of identification. Besides the species described in this paper the key includes *borealis* and *signatus* Banks, both described in *The Canadian Entomologist*, the former in 1895 and the latter in 1900, *conjunctus*, *divaricatus* and *aztecanus* Banks, *Arachn. from Baja California and other parts of Mexico*, Proc. Acad. of Sci. of California, 3rd Series, Vol. I, No. 7, pp. 285-287, *montanus* Emerton, *Canadian Spiders*, Trans. Conn. Acad., IX, July 1894, p. 420, *coecatus* H., *auratus* H., *viripedes* H., *crustatus* H., *hirsutus* P., *peregrinus* P., *oregonensis* P., *splendens* P., described in our *Attidae of North America*, Wisconsin Acad. Sci. Arts and Letters, Vol. VII, *latens*, *mexicanus*, *belligerus* and *paratus* P., *Attidae of Central America and Mexico*, Occ. Pap. Nat. Hist. Soc. of Wisconsin, Vol. III, No. 1, April 1896. We have omitted *coronatus* H. because our specimen is immature. All of these species were described under the generic name *Habrocestum*.

Key to Males of *Pellenes*.

- | | | |
|---|--|----|
| 1 | Some of the legs fringed, or enlarged, or both | 2 |
| | Legs not fringed nor enlarged | 14 |
| 2 | Legs 3142, 3142̄ or 3142̄ | 3 |
| | Legs 3412* | 6 |

*In some individuals of *hirsutus* the relative length of the legs is 3142̄, but the iridescence on the first leg serves to distinguish the species.

- 3 Third leg not modified 4
 Third leg modified 5
- 4 Red hairs on clypeus *signatus*
 No red hairs on clypeus *auratus*
- 5 Longitudinal white band on middle of abdomen *Howardii*
 Transverse white band on middle of abdomen *brunneus*
- 6 Only the first leg modified 7
 Third leg, or both first and third legs modified 9
- 7 First leg much enlarged, tibia as wide as long, with fringe of stiff dark hairs;
 spider nearly covered with iridescent red *oregonensis*
 First leg dark, with metatarsus flattened and iridescent; clypeus red *hirsutus*
 First leg yellow or brown, with metatarsus not flattened nor iridescent; clypeus
 not red 8
- 8 Legs brown. Fringe of white hairs on upper sides of femur patella and tibia of
 the first, and of smoky hairs on lower sides of the same joints. Clypeus
 white with a touch of fawn-color below the middle eyes *Birgei*
 First leg with fringes above and below, on femur, patella and tibia, the hairs
 being white on all three joints above and on the femur and patella below,
 while on the underside of the tibia they are dark; no black lines on
 metatarsus and tarsus of first *conjunctus*
 Clypeus and front legs of falces covered with fawn-colored hairs, legs yellow.
 First leg with a fringe on upper side of femur, patella and tibia and on the
 under side of the tibia, the hairs on the femur being white, on the upper
 side of the patella and tibia white with a bunch of dark ones in the middle
 of each joint, and on the underside of the tibia, dark; no black lines on
 metatarsus and tarsus of first *elegans*
 First leg with only a dark fringe on the under side of patella and tibia;
 metatarsus and tarsus of first with black lines *tranquillus*
- 9 Clypeus red; no iridescence on metatarsus of first legs *coecatus*
 Clypeus not red; or clypeus red, and metatarsus of first leg iridescent 10
- 10 Abdomen having longitudinal median, and encircling white bands, with velvety
 black on sides; no transverse nor oblique bands 11
 Abdomen with transverse or oblique white bands 12
- 11 Clypeus covered with long, thick white hairs; habitat, eastern United States
 *peregrinus*
 Clypeus dark, with a long white spot under each lateral eye; habitat, Mexico
 *divaricatus**
- 12 Abdomen with broken figures down middle line and two oblique bands on each
 side *mexicanus*
 Abdomen with white basal band and second transverse band further back, the
 two connected by a median white band 13

**Divaricatus* is distinguished from all other species by having, along with the peculiar modification of the patella of the third leg. a serrated edge on the apophysis of the tibia of the palpus, and an unusual coloration of the clypeus. The palpus is well shown in Mr. Banks' illustration of this species.

- 13 Length 6 mm; tibia of first leg with two longitudinal black lines; femur and patella of third each with an apophysis; falces brown *festus*
 Length 5 mm; femur, patella and tibia of first leg with one longitudinal black band; no apophysis on femur of third, which has distal half light colored, with transverse black lines; patella of third yellow, with a strong apophysis which is blackish on the end, with a long, stout spine; falces covered with white hairs on the inner two-thirds, with the outer third black... *aztecianus*
 Length 4.5 mm; tibia of first without black lines; femur of third without apophysis; patella of third with two apophyses; falces covered with white hairs *Klauserii*
- 14 Legs 1342; clypeus red *paratus*
 Third leg longest; clypeus not red 15
- 15 Cephalothorax and abdomen highly iridescent, cephalothorax dark, abdomen bright red *splendens*
 Different coloration 16
- 16 Tibia of palpus with a large apophysis, straight on lower edge, rounded above, wider at end than at base; legs 3142 *montanus*
 Tibia of palpus without any such apophysis 17
- 17 Abdomen with median and encircling bands white, and two yellow bands on sides; no transverse band *limatus*
 Abdomen with different coloration 18
- 18 Cephalic part with two white streaks starting between the large middle eyes and diverging a little as they pass backward, and two white bands running from the lateral eyes back on to thoracic part; no crest of black hairs
 *viridipes*
 Cephalic part without white bands but having a crest of long black hairs over first row of eyes *borealis*

Key to Females of *Pellenes*.

- 1 Third leg longer than fourth by less than tarsus 2
 Third leg longer than fourth by at least tarsus 3
- 2 Habitat, New Hampshire *borealis*
 Habitat, California *signatus*
- 3 Third leg longer than fourth by a little more than tarsus 4
 Third leg longer than fourth by tarsus and metatarsus 14
- 4 First leg longer than second by less than tarsus and metatarsus 5
 First leg longer than second by tarsus and metatarsus 13
- 5 First leg longer than second by tarsus and nearly the metatarsus; a white streak running back from between middle anterior eyes; a herring-bone stripe on the abdomen; habitat, Texas *Townsendii*
 First leg longer than second by only tarsus 6
- 6 A distinct light basal band on abdomen 7
 No distinct light basal band on abdomen 12

- 7 Clypeus chestnut-colored and white 8
 Clypeus not chestnut-colored and white 9

- 8 Clypeus with a white margin *carolinensis*
 Clypeus without a white margin *sabulosus*

- 9 Abdomen having longitudinal central and side bands white, with dark bands
 between 10
 Abdomen without such bands 11

- 10 Cephalothorax with scalloped yellow band marking off eye-region; habitat,
 United States *peregrinus*
 Cephalothorax without such band; habitat, Mexico *simplex*

- 11 Cephalothorax with a white streak running back from clypeus, between middle
 eyes, on to cephalic plate, where there is a diamond shaped white spot
 *hirsutus*
 Abdomen with a scalloped yellow band, distinctly outlined in black *viridipes*
 No white streak nor yellow band *latens*

- 12 Body all covered with gray hairs; a white band on posterior part of abdomen
 with oblique chestnut-colored bars on the edges; habitat, Utah *griseus*
 Abdomen dark with herring-bone stripe and oblique bands white; habitat,
 Canada *montanus*
 First leg longer than second by less than tarsus; abdomen sometimes having an
 indistinct light basal band, and marked by two oblique light bands, which
 in some specimens are continuous over the anterior dorsum, a light spot,
 outlined in black, and two light spots above the spinnerets; habitat, east
 and south United States *cristatus*
 Body fawn-colored; sides and thoracic part of cephalothorax whitish; abdomen
 with two oblique black bands on each side; habitat, Wisconsin *Howardii*
 Body fawn-colored; lower sides of abdomen with indistinct white bands, upper
 sides with two black scallops; posterior part with light chevrons outlined
 in black; habitat, Guatemala *belligerus*
 Body yellowish-gray, having, under alcohol, an indistinct light herring-bone
 stripe on the abdomen; when dry, without markings; habitat, Utah
 *candidus*

- 13 Abdomen black and white, the latter having sometimes a tinge of salmon
 *splendens*
 Abdomen brown *nemoralis*

- 14 First leg longer than second by less than tarsus and metatarsus 15
 First leg longer than second by tarsus and metatarsus 17

- 15 First leg longer than second by tarsus and part of metatarsus; cephalothorax
 covered with a mixture of red and white hairs; a ridge of black hairs over
 anterior eyes *superciliosus*
 First leg longer than second by only the tarsus 16

- 16 Clypeus with chestnut-colored spots; habitat, New Mexico *politus*

- 16 Three longitudinal white bands throughout the length of the cephalothorax; habitat, Mexico *mexicanus*
 Cephalothorax fawn-color with a black margin, a light, median, longitudinal band on abdomen, on each side of which the color is dark; habitat, Mexico ..
 *placidus*
 Body gray, with white spots down middle of abdomen, and white oblique bands on sides; habitat, New York, South Carolina, Georgia *auratus*

- 17 Cephalothorax with three white, longitudinal streaks, those on sides including lateral and dorsal eyes, the middle one sometimes indistinct *cognatus*
 No such streaks *dolosus*

Abbreviated Descriptions of the American Species of *Pellenes*. Males.

P. Howardii.

The abdomen has a white band down the middle with a black band on either side, arid is encircled by white. The first leg is fringed with white hairs. In the third leg the patella has the distal end enlarged. Legs 3142. From Wisconsin.

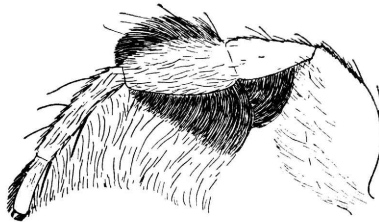
P. brunneus.



First Leg of Male.

The abdomen has a white basal band and a second transverse white band further back, the two being connected by a white band which extends from one to the other. Further back is a short median longitudinal white band. The first leg is heavily fringed with white and brown hairs, and the third, has one apophysis on the femur and two on the patella. Legs 3142. From Florida.

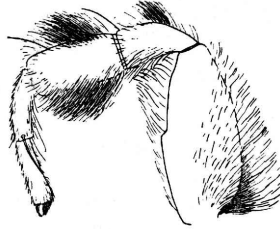
P. hirsutus.



First Leg Of Male.

The clypeus is red. The first leg is heavily fringed and has the metatarsus flattened, and bluish-iridescent in color, with two long dark spines. The third leg is unmodified. From Oregon, Utah and New Mexico.

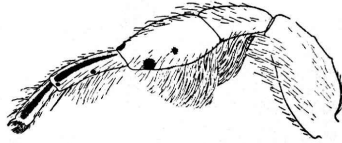
P. elegans.



First Leg of Male.

The abdomen is brown with median longitudinal, and encircling white bands. The first leg is fringed, with alternating bunches of white and brown hairs. Legs 3412. The cephalothorax, including clypeus and falces, is covered with fawn-colored hairs. From California.

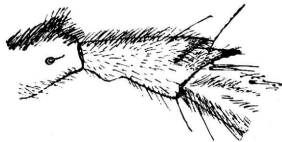
P. tranquillus.



First Leg of Male.

First leg with tibia enlarged and fringed with long white hairs underneath. The patella and tibia have, also, a fringe of dark hairs. The metatarsus and tarsus have black lines. Legs 3412. From Arizona.

P. coecatus



coecatus m
3rd leg

Third Leg of Male.

The clypeus is red. First leg with brushes of hairs on the femur. Third leg with apophysis on the patella. Legs 3412. From Eastern and Southern United States.

P. festus.

Legs 3412. The abdomen is black, with a basal band and a second transverse band further back, white, the two being connected by a white band which runs from one to the other. The first leg is fringed with white hairs, and has, on the tibia, two longitudinal black lines. In the third leg the femur and patella have each an apophysis. From Utah.

P. Klauserii.

The abdomen is black, with a basal band and a second transverse band further back, white, the two being connected by a white band which runs from one to the other. The first leg has a short fringe of white hairs. The third leg has an enlargement at the distal end of the femur and two apophyses on the patella. The falces are covered with white hairs. From New Mexico.

P. limatus

The abdomen has white bands encircling the dorsum, and down the middle, and a band of yellow hairs down each side. The legs are not fringed nor enlarged, the relative length being 3412. The third leg is longer than the fourth by part of the tarsus. The clypeus is yellow. From California.

P. Birgei.

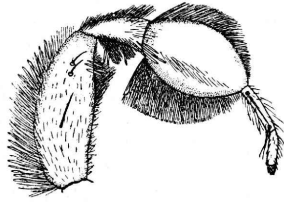
The abdomen has median longitudinal and encircling bands white, with brown on each side of the dorsum. Legs 3412, the third exceeding the fourth by the tarsus and half of the metatarsus. The clypeus is white. From New Mexico.

P. signatus.

Legs $\overline{3142}$, covered with short white hairs. The first leg has a bunch of short black hairs under the femur and a dark fringe under the tibia and patella. The third leg is unmodified. The clypeus is red. From California.

P. auratus.

The abdomen has median longitudinal and encircling white bands, with black bands down the sides. There are bunches of dark hairs on the femur, patella and tibia of the first leg. The relative length of the legs is 3142. The third leg is unmodified. From Eastern and Southern United States.

P. oregonensis.*oregonense*
1st leg ♂

The cephalothorax (including clypeus) and abdomen are nearly covered with iridescent red hairs. The first leg is much enlarged, the tibia being as wide as long with a fringe of stiff dark hairs. From Oregon.

P. conjunctus.

The cephalothorax is reddish, this color being brightest on the cephalic plate, between the eyes of the first row. and along the upper sides of the cephalic part. Across the clypeus and around the margin is a white band. The relative length of the legs is 3412. The first leg has a white fringe along the upper side of the femur, patella and tibia, and along the under side of the femur and patella, the tibia having dark hairs below. The abdomen is brownish with median longitudinal and encircling white bands. From Lower California.

P. peregrinus.*peregrinus*
♂ 3rd leg

The abdomen has a white band down the middle, a velvety black band on either side, and is encircled by white. The clypeus is covered with white hairs. The patella of the third leg is enlarged. The relative length of the legs is 3412. From Eastern United States.

P. divaricatus.

The clypeus is brown with a pure white elongated spot below each lateral eye running vertically to the margin. The tibia of the palpus has a serrated apophysis. From Lower California.

P. mexicanus.

The abdomen is brownish with broken figures down the middle line, and two oblique bands, white. The relative length of the

legs is 3412. The first leg has fringes of brown hairs on each side of the femur and patella. At the distal end of the femur of the third is a rounded enlargement with a black spot in the middle. From the northeastern part of Mexico.

P. aztecanus

The abdomen has a basal band and a second transverse band, white, the two being connected by a short white band. The falces are covered with white hairs on the inner two-thirds, while the outer third is black. The relative length of the legs is 3412. The femur of the third leg has the distal half light colored with transverse black lines, and the patella of this leg is yellow, with a strong apophysis, which is blackish at the end with a long stout spine. The clypeus is white. From Mexico.

P. paratus.

The clypeus is red. The abdomen is covered with yellow hairs, excepting three large white spots on the back, and four obliquely elongated white spots on each side. The relative length of the legs is 1342, the first being much the longest. Tibia of palpus with an apophysis which is blunt, and nearly as wide as long. From the eastern part of Guatemala.

P. splendens.

The cephalothorax and abdomen are highly iridescent, the cephalothorax being dark and the abdomen bright red. The legs are not modified. From Wisconsin, Massachusetts and Florida.

P. montanus.

The abdomen has a light herring-bone stripe down the middle, and a row of oblique light and dark markings on each side. Legs 3142, unmodified. Tibia of palpus with a large apophysis, straight on lower edge. rounded above, and wider at end than at base. From Rocky Mountains, Canada.

P. viridipes.

Legs 3412, unmodified. The cephalothorax has four white lines from the first row of eyes, extending over the cephalic plate. The abdomen is black, with a basal band, a scalloped band which encircles the posterior two-thirds of the dorsum, and a central spot, of a yellowish-white color. From Southern United States.

P. borealis.

The abdomen is black with a white basal band and a second white transverse band further back. The legs are unmodified, their relative length being 3412. From New Hampshire.

P. clypeatus.

The abdomen is black with a basal band and a median stripe white. The clypeus is black with a few white hairs in the center, and a conspicuous, elongated, vertical spot under each side eye. The first leg is black except the metatarsus and tarsus, which are pure white; the leg is clothed with white scales, those under the tibia being extremely long and pedicellate. The third leg is not modified. From Colorado. Not in our collection.

P. dorsalis.

The abdomen is brown, paler beneath, with white scales and long hairs. There is a narrow white median stripe from base to apex, its posterior part broken into spots. There are some small spots on the sides. The clypeus is dark. The third leg is unmodified. From Hermosillo, Mexico. Not in our collection.

Females.*P. nemoralis.*

General color, brown. The cephalic plate is covered with white and copper-colored hairs. There is no ridge of hairs above the first row of eyes (as in *superciliosus*). The third leg is longer than the fourth by a little more than the tarsus. From Arizona.

P. superciliosus.

The abdomen is reddish brown, with pale chevrons down the middle. There is a ridge of black hairs above the first row of eyes. The third leg is longer than the fourth by the tarsus and metatarsus. From Arizona.

P. politus.

The cephalic part has three longitudinal white bands. There is a white basal band on the abdomen. The hairs around the front middle eyes are rufus, above and below, and white on the sides. The middle of the clypeus has a large snow-white triangle, and outside of this are alternating bands of white and chestnut. The third leg longer than the fourth by the tarsus and metatarsus. From New Mexico.

P. hirsutus

There is a distinct light basal band on abdomen. The white between the two middle eyes of the first row is continued back, soon dividing into two bands, which unite with the bands that come up from the thoracic slope, thus a diamond shaped

white spot is formed on the cephalic plate. There are also white lines extending from the anterior lateral eyes to the dorsal eyes on each side. From Oregon, Utah and New Mexico.

P. simplex.

The abdomen has longitudinal central and side bands light-colored with dark bands between. On the sides of the cephalothorax the hairs are white; the lower margin has a black line between two white lines. From Vera Cruz, Mexico.

P. griseus.

The abdomen is grey, with a central white band on the posterior part, on the sides of which are oblique chestnut-colored bars. The cephalothorax has on its margin a black line between two white lines. From Utah.

P. candidus.

There is no light basal band on the abdomen, which is entirely covered with yellowish-grey hairs. There are white hairs on the sides and posterior thoracic slope of the cephalothorax. From Utah.

P. carolinensis.

The abdomen is velvety black, with markings of a bright pinkish and salmon-color. Clypeus white, with a chestnut-colored band running outward from each of the middle eyes, not reaching the margin. The third leg is longer than the fourth by little more than the tarsus. From South Carolina.

P. sabulosus.

The abdomen is black, mottled with gray, with a lighter basal band running on to the sides. Clypeus white, with a chestnut-colored spot passing outward from each of the middle eyes down to the margin. The third leg is longer than the fourth by little more than the tarsus. From Georgia.

P. placidus.

The abdomen is dark brown, with a median longitudinal light band which reaches neither base nor apex. The third lea is longer than the fourth by the tarsus and metatarsus. The first leg is longer than the second by only the tarsus. From Mexico.

P. cognatus.

There are three longitudinal white bands on the cephalic part. The abdomen is fawn-colored with a light encircling band, and

a band of light chevrons, reaching neither extremity, on the abdomen. The clypeus is white. The third leg is longer than the fourth by the tarsus and metatarsus, and the first leg exceeds the second by the same joints. From Kansas and New Mexico.

P. dolosus.

The third leg is longer than the fourth, and the first is longer than the second, by the tarsus and metatarsus. There are no white bands on the cephalothorax. The clypeus is covered with white hairs. The falces are brown. From Arizona.

P. Townsendii.

The first leg is longer than the second by tarsus and nearly all of the metatarsus. There is a white streak running back from between the middle anterior eyes. There is a white herring-bone stripe on the abdomen. From Texas.

P. peregrinus.

The first leg is longer than the second by only the tarsus. The abdomen has a distinct white basal band and three white stripes, with black between. The clypeus is white. From New York, Connecticut.

P. viridipes.

The third leg is longer than the fourth by a little more than the tarsus, and the first is longer than the second by only the tarsus. The abdomen is blackish, with a basal band, a scalloped band which encircles the posterior two-thirds, and a central spot, of a yellowish white color. From Southern United States.

P. latens.

The first leg is longer than the second by only the tarsus. There is a light band on the base and sides of the abdomen, and on the posterior third of the dorsum are some alternating light and dark chevrons. From British Honduras.

P. montanus.

The first leg is longer than the second by only the tarsus. There is no distinct light basal band on the abdomen, which is dark, with white herring-bone stripe and oblique bands. From Canada.

P. cristatus.

The first leg is longer than the second by less than the tarsus. The abdomen is covered with grayish-rufus hairs, and has slender lighter bands edged with black, which curve up over the sides

toward the middle. Behind is a lighter spot edged with black, and two light spots above the spinnerets. From Eastern and Southern United States.

P. Howardii.

The first leg is longer than the second by only the tarsus. The body is fawn-colored, except the sides and thoracic part of the cephalothorax, which are whitish, and two oblique black bands on each side of the abdomen. From Wisconsin.

P. belligerus.

The first leg is longer than the second by only the tarsus. The abdomen is fawn-colored with indistinct light bands on the lower sides, and with two black scallops on the upper sides. The posterior part has light chevrons, outlined in black. From Guatemala.

P. splendens.

The first leg is longer than the second by the tarsus and metatarsus. The abdomen is velvety black, with basal, central and lateral white bands, which are sometimes tinged with salmon. From Wisconsin, Massachusetts and Florida.

P. mexicanus.

The third leg is longer than the fourth by the tarsus and metatarsus, while the first is longer than the second by only the tarsus. There are three longitudinal white bands throughout the length of the cephalothorax. The clypeus is covered with long white hairs. From Reynosa, Mexico.

P. auratus.

The first leg is longer than the second by only the tarsus. The abdomen is gray with white spots down the middle, and oblique white bands on the sides. From New York, South Carolina and Georgia.

P. signatus and *P. borealis* Banks.

These two species are distinct from all others by having the third leg longer than the fourth by less than the tarsus. They are very like each other, and as our specimen of *borealis* is one moult from maturity they cannot be distinguished by the epigynes. *Borealis*, however, is from New Hampshire, while *signatus* is found in California.

P. cinctipes Banks.

The abdomen is light gray, with a large, long brown stripe above with projections on its sides, and containing some pale

chevrons behind; the sides and venter are light gray. The anterior pair of legs is dark, pale at bases of patellae, tibiae and metatarsi; the other pairs are pale, all joints being dark at bases and tips. The clypeus is dark with long white hairs on the margin. From Cape Region of Lower California. Not in our collection.

P. dubitatus Banks.

The abdomen is pale on the sides and below. Above it is mostly brownish, with a median white stripe behind and two white side spots. The clypeus is white with long white hairs. From Cape Region of Lower California. Not in our collection.

Detailed Descriptions of *Pellenes* and Some Other Genera

Pellenes Howardii, n.

Pl. I, figs. 1-1b.

♂. Length, 4.3 mm.; ♀, 5.5 mm. Legs, $\overline{3142}$, the first very little stouter than the others. In the male the legs of the first pair are fringed, and those of the third pair have an enlargement on the patella.

The quadrangle of the eyes is one-third wider than long and is wider behind than in front. The first row of eyes is straight, the middle eyes subtouching, and less than twice as large as the lateral, which are separated from them. The clypeus is nearly as wide as the middle eyes.

In the male the cephalic plate is covered with hairs of a soft fawn-color tinged with reddish, and is limited, behind, by a ridge and a scalloped yellowish-white band. The sides of the cephalothorax and the middle of the thoracic slope, are velvety black. A wide white band runs back from each dorsal eye to the posterior margin, and then curves forward and passes along the lower side as far as the dorsal eye. Around the lower margin is a black line with a narrow white line above it. The abdomen has velvety black bands on the sides of the dorsum, on each of which, near the posterior end, is a white dot. There is a wide encircling white band, which sends up an oblique band in the anterior part, and down the center is a wide white band which is enlarged in the middle to form an arrow-shaped mark. The first legs, in life, are of a tender green color, the others yellowish with white scales. The first has, on the outer under side of the femur, a thick fringe of white, continued in a thin fringe which is short on the patella and long on the tibia. The tibia has also some long white hairs, and two black spines on the inner side. The third leg has the patella enlarged at the distal end, and has a short curved apophysis which extends over the tibia. The front

face of the enlarged part is pale and on it is a small black spine. This is evidently in the nature of an ornament since it is used in display during courtship. The clypeus and the front of the falces are covered with thick snow-white hairs. The palpi are brown with white hairs.

In the female the body is nearly covered with a mixture of white and fawn-colored hairs with longer black hairs over them. The fawn-color predominates everywhere excepting on the sides and thoracic part of the cephalothorax, which are nearly white. There are two oblique black bands on each side of the abdomen. The clypeus is thickly covered with brownish white hairs. The falces have only a few white hairs. We have numerous examples from Wisconsin.

Pellenes brunneus, n.

Pl. I, fig. 2.

♂. Length, 5 mm. Legs, 3142.

Quadrangle of eyes a trace wider behind than in front, and one-third wider than long. First row straight, all slightly separated. Middle eyes nearly twice lateral. Second row halfway between the others. Clypeus nearly equal to diameter of middle eyes. Labium as long as wide, and about half the length of maxillae. The sternum is light brown, with a circle of white hairs surrounding the central part. The first leg is adorned with fringes, the femur, patella, and tibia having two rows of dark hairs, with many white hairs extending beyond their tips, and also disposed over other parts of the leg; on the tarsi and metatarsi the hairs are too thin to form fringes. Two large, dark spatulate spines come off from the anterior side of each tibia.

The cephalothorax dark brown. Covering the clypeus, and extending back on either side is a narrow band of white. This white turns up on the thorax but does not reach the top. Behind each dorsal eyes is a short white spot. The cephalic plate is covered with short yellowish hairs, surrounded by a whitish border, which lies just within the quadrangle of the eyes. The abdomen is black, with a white basal band, which runs down on to the sides. Near the middle is a second transverse white band, the two being joined by a white band which extends from one to the other in the middle of the dorsum. Further back there is another short median longitudinal band, also white, with white spots on either side just above the spinnerets. The posterior sides are scalloped, the points of the scallop coming up a little toward the top of the abdomen. The under side has four light bands uniting at the spinnerets; between the bands the color is dark.

The last three pairs of legs are yellow, with many short white hairs and some black marks. The third leg has the femur constricted and rounded at the distal end with a short apophysis above, and a black dot in front. Several black longitudinal lines appear on the anterior and upper sides. The patella has two short apophyses on the upper part. The joints of the palpus are covered with short white hairs. We have one male from Florida.

***Pellenes hirsutus* Peckham.**

Hab. hirsutum 1888. ♂. *North American Attidae*, Wis. Acad. Of Sciences, Arts and Letters, Vol. VII, p. 64.

Length, ♂, 5 mm.; ♀ 6 mm. Legs, 3412 or $\overline{3142}$. Third leg in the male longer than fourth by tarsus and part of metatarsus.

Quadrangle of eyes plainly wider behind, and one-third wider than long. First row straight, all eyes subtouching, middle eyes nearly twice lateral, second row halfway. Clypeus one-half as high as middle eyes of first row. Labium about as wide as long and less than half maxillae. The sternum is light yellow in the center, surrounded by a dark brown band. The first leg of the male is modified and enlarged; the femur has a fringe of white hairs on the under side, and a second white line parallel with it, which, on the dark color of the femur, is very striking. On the upper side are several long, moderately stout spines. On the under side of the patella and tibia are fringes of long hairs. One, the shorter, is a smoky brown, the other, much longer, is white; the two layers of hairs being in apposition. There are no fringes on the upper part of the patella, but the one on the tibia is short, thick and dark, the tibial joint, while enlarged, is still about twice as long as wide. The metatarsus is flattened in front, and is iridescent bluish in color. There are two long, dark-colored spines, and a fringe of white hairs, on the under side; the latter extends to the tarsus. The other legs are unmodified in both sexes.

In the male the cephalothorax is yellowish-brown. White bands on the lower margin run back on either side, from a point below the location of the small eyes; before reaching the end they turn up over the back, and slightly approach each other. At the dorsal eyes they become indistinct, in some specimens being continued as far forward as the first row of eyes, while in others they blend with the yellowish color of the cephalic plate. The anterior sides and the clypeus* are rather yellow than brown, while the back, between the white bands, is quite dark. The

*In some specimens the clypeus is red.

femora of the posterior three legs are yellow, the other joints are darker, and all are covered with short white hairs. The abdomen is dark-brown, with many lighter colored hairs. Two white bands come off from the base of the abdomen and run obliquely down the sides; and just above the spinnerets are three or four very short white chevrons. Underneath, the color is light yellow.

In the female the cephalothorax is yellowish-brown, mottled with many white hairs; the lower margin is white, except at the middle of the posterior slope; the two lateral bands pass up over the back, at first very slightly approaching each other, just at the dorsal eyes, and thereafter diverging. The clypeus is white, and the white is continued up and between the two anterior middle eyes, when it divides into two bands, which unite with the two that come up from behind; thus a diamond-shaped white spot is formed on the cephalic plate. White lines extend from the anterior lateral eyes to the dorsal eyes on each side. These patterns are more or less distinct, depending upon the amount of white mixed with the brownish ground color. The abdomen, while brownish in color, is much more mixed with white hairs than in the male; there is a more distinctly white basal band, which passes down the sides. There are two oblique white bands on each side just behind the middle. In the middle of the posterior half of the back is a darker band, marked with two or three white chevrons or spots. The legs are light yellowish-brown, more or less covered with short white hairs.

We have this species from Oregon, Utah and New Mexico. (Prof. T. D. A. Cockerell.)

We have four males of *Pellenes* with the clypeus red, *signatus*, California, *hirsutus*, Oregon, Utah and New Mexico; *coecatus*, Southern and Eastern United States, and *paratus*, Guatemala. *Hirsutus* is distinguished from the others by the flattened iridescent metatarsus of the first leg; *coecatus*, by the modification of the third leg; *paratus*, by having the first leg plainly longest and stoutest, with no modification of either the first or third; it has, also, the apophysis on the tibia of the palpus as wide as long. *Signatus* has no modification of the third leg, no iridescence on the metatarsus of the first, and has the relative length 3142. *Coronatus* Hentz has a red clypeus, but we have never seen a mature specimen, and are inclined to think that it may be the last moult before maturity of *coecatus*.

***Pellenes elegans*, n.**

Pl. I, fig. 3.

♂. Length, 5 mm. Legs, 3412.

Quadrangle of eyes wider in front, and nearly one-third wider than long. First row of eyes straight, and but little separated, the middle being nearly twice as large as the lateral. Second row nearer first than third. Clypeus about half as high as diameter of large eyes. Labium wider than long, and hardly one-third the length of the maxillae. The sternum is light brown. The first leg is ornamented; on both sides of the femur and on the under side of the patella are fringes of white hairs; on the upper side of the patella the fringe is dark in the middle and white at the ends; the tibia has dark hairs underneath, while above, the hairs are white, then dark, and thereafter white; the metatarsus and tarsus are without fringes. The arrangement of the white and dark hairs on the first leg is very striking, and serves to distinguish it from all the males thus far described.

The whole cephalothorax is covered with short fawn-colored hairs, including the clypeus and front of falces; on the lower margin of the sides are two white lines, separated by yellow hairs. At the posterior end of the head the lines unite and are continued back as a white band. These bands do not appear to have run up the back of the thorax, as is so common in other species of this genus, but as our specimen is rubbed we cannot be certain on that point.

The abdomen is brown with a tinge of gold. The sides are white, and in the middle is a white band extending from base almost to the end; this band is slightly attenuated behind. The legs are yellow with darker bands.

We have one male from California.

Pellenes tranquillus, n.

Pl. I, fig. 4.

♂. Length, 5 mm. Third leg, 4 mm. Legs, 3412. First leg longer than second by tarsus and one-half metatarsus. Third leg longer than fourth by tarsus.

Quadrangle of eyes wider behind than in front. First row straight, with the middle eyes subtouching, and the lateral a little separated from them; middle twice as large as lateral eyes. Eyes of third row as large as lateral eyes of first row, placed a little further from each other than from lateral borders. Clypeus two-thirds as high as middle eyes of first row. Maxillae truncated in front and straight on inner edges. Labium as wide as long. Sternum oval. On the upper side of the femur of the first leg are three small points. This leg has the tibia enlarged, and ornamented with a long fringe of white hairs underneath, and some yellowish-white rice-like scales. Metatarsus and tarsus

of this leg marked with a line of black. Second leg with a short fringe under the patella and tibia.

Our specimen is very much rubbed. The clypeus seems to have been covered with fawn-colored hairs. On the sides of the cephalothorax are many white hairs, which are also found above the first row of eyes, and at the anterior end of the abdomen. The species must be distinguished by the first leg and the palpus. We have one male from Arizona.

***Pellenes coecatus* Hentz.**

1845. *Attus coecatus*, H., ♂. Jour. Bost. Soc. Nat. Hist., Vol. V.

1875. *Attus coecatus*, id., ♂. Coll. Hentz's Arachn. Writ., p. 65.

1888. *Habrocestum coecatium*, ♂. North Amer. Attidae, Peckham, p. 60

♂. Length, 5 mm. Length of third leg, 6 mm. Legs, 3412. First leg longer than second by two-thirds of tarsus. Third leg longer than fourth by tarsus.

♂. Length, 4.3 mm. Length of third leg, 4.4 mm.

Quadrangle of eyes equally wide in front and behind. First row straight, middle eyes subtouching, lateral slightly separated from middle eyes, and rather less than one-half as large. Eyes of third row nearly as large as lateral eyes of first row, placed equally distant from each other and from lateral borders. Clypeus two-thirds as high as middle eyes of first row. Maxillae small, rounded. Labium very small, rounded, about as wide as long, less than half as long as maxillae. Anterior coxae separated by fully the width of the labium. Sternum oval. The femur of the first leg of the male has, at the distal end, two stout brushes of hair; and on the inner side of the tibia, two long flattened apophyses or strong spines; while the third leg has the distal end of the femur enlarged, and has, on the dorsal surface of the patella, a little ridge and a weak apophysis.

The cephalothorax is black, with some brownish hairs over the first row of eyes, and some white hairs on the thoracic part. The abdomen is black, more or less covered with whitish hairs which form (sometimes not distinctly) a white basal band which extends on to the sides, a transverse curved white band across the middle, a central diamond-shaped white spot behind this, and two short white lines just above the spinnerets. The clypeus is covered with short, brilliant red hairs; where these are rubbed off it is brown. The falces are brown. The legs are brown, the first being the darkest. They all have blackish longitudinal bands on the femoral joints. The femur of the first has two stiff brushes of dark-colored hair, one on the anterior and one

on the posterior side, toward the distal end. The patella and tibia of the first have a good deal of white rice-like hair, and the tibia has, on the anterior side, near the distal end, two black flattened spines. The femur of the third has, on the anterior face, at the distal end, a clear space with a black dot. The spines on the third leg are light-colored, excepting on the last two joints, where they are black. Palpus lighter brown than legs, with scanty white hairs on tarsus.

Habitat: Pennsylvania, New York, Alabama, New Mexico. (Prof. T. D. A. Cockerell.)

In the description of this species in our North American Attidae, the female sign was inadvertently substituted for that of the male. We have no female of *coecatus*.

Pellenes festus, n.

Pl. I, fig. 5.

♂. Length, 6 mm. Third leg, 6 mm. Legs, 3412. Third leg longer than second by tarsus and metatarsus. Third leg longer than fourth by tarsus.

Quadrangle of eyes slightly wider behind than in front. First row almost straight, eyes small, the middle about twice as large as the lateral; middle eyes subtouching; lateral separated from the middle by one-third their own diameter. Eyes of the third row about as large as the lateral eyes of the first row, placed as far from each other as from the lateral borders. Clypeus two-thirds as high as middle eyes of first row. Maxillae wedge-shaped, slightly rounded in front, inclined toward each other. Labium a little longer than wide, half as long as maxillae. Sternum large, oval. Anterior coxae separated by the width of the labium. Tibia of first leg with two long stiff spines or apophyses. Femur and patella of third leg each with an apophysis at distal end.

The cephalothorax is black, probably covered with a mixture of short white and yellow hairs. In our specimen there remain, of these, a good many on the thoracic part, while the eye-region is thickly covered. There are also some long, darker colored hairs over the first row of eyes. The abdomen is black, surrounded by white, with a white longitudinal central band, a curved transverse white band coming up from the sides over the middle of the dorsum, and two white bars at the spinnerets. Clypeus white. Falces brown with sparse white hairs.

Legs brown, the first being a little darker than the others, and having two longitudinal black lines on the upper face of the tibia. On the under side of the posterior face of the femur, patella, and tibia of the first, is a fringe of long white hairs; and

on the under side of the anterior face of the same joints is a similar, but less pronounced fringe. The third leg has the anterior face of the femur pale, with two longitudinal dark lines, while at the distal end is a pale space having in the center a black dot. This pale space is in a constricted part, and a small apophysis comes off just above. All the spines on the third leg are light-colored.

From Utah. This species is close to *coecatium*, the leg modifications being very similar. *Coecatium*, however, has, on the distal end of the anterior face of the tibia of the first leg two large, flattened black spines; and has also, on the anterior and posterior faces of the femur of the first, toward the distal end, two stiff brushes of dark-colored hair; while the first leg in *festus* is as above described, adorned with fringes of white hair. Moreover in *coecatus* the clypeus is red, while in *festus* it is white.

Pellenes Klauserii, n.

Pl. I, fig. 6.

♂. Length, 4.5 mm. Legs, 3412.

Quadrangle of eyes wider behind, and nearly one-third wider than long. First row of eyes straight, the middle near together, the lateral a little separated, the latter less than half the former. Second row nearer the first than the third. Clypeus equal to diameter of middle eyes. Labium as wide as long, and half as long as maxillae. The sternum light yellow. The first leg has fringes of hairs, but they are not so long as in *H. brunneus*, or the other species with these ornaments. The femur has fringes on the two sides, while on the patella and tibia, although there are hairs on the anterior sides, it is only on the posterior that they are well marked; the hairs on the upper side of the femur are dark, the others white. Two long, thick, black spines come off from the anterior face of the tibia. The third leg is modified; the femur, near its distal end, is constricted, the part beyond being somewhat enlarged and rounded; on the face of this part is a black spot, and above it is a black ridge. The patella has two apophyses on its upper side.

The cephalothorax is black. The clypeus and face of falces are covered with white hairs. White lines, rather narrow, extend back along the margin, and on reaching the posterior end turn upward, as in other species of this genus, and merge with fawn-colored hairs that cover the cephalic plate. In some specimens all these markings are fawn-colored.

The abdomen is black, with a basal band running down the sides, and a second transverse band, narrower than the first, the two united, along the middle, by a wide band; the posterior

part of the abdomen has a median line of short chevrons reaching the spinnerets. On each side of this line, just above the spinnerets, are spots. All these markings may be made up of white, or of fawn-colored hairs. The under side of the abdomen is without markings. The three posterior legs are covered with hairs; on the femur of the third leg there are two black lines, with lighter lines edging them, and on the constricted part there is often a tinge of red.

We have two males from New Mexico, from Prof. T. D. A. Cockerell.

Pellenes limatus, n.

Pl. I, fig. 7.

♂. Length, 6.5 mm. Legs, 3412; the first scarcely stouter than the others.

The quadrangle of the eyes occupies only a little more than one-third of the cephalothorax, is barely one-fourth wider than long, and is only a very little wider behind than in front. The front eyes form a curved row; the middle eyes are subtouching, and fully twice as large as the lateral, which are separated from them.

The sides of the cephalothorax, and the middle upper part, are covered with yellow hairs. Two white bands run from above the lateral eyes to the posterior end. These are met by white marginal bands, which begin at the dorsal eyes and pass backward. The abdomen is white, with two longitudinal bands of yellow hairs, which have on their edges, in the posterior part, a series of darker bars, giving them a jagged appearance. The clypeus is covered with yellow hairs. The falces are brown. The tibia of the first leg is dark, but otherwise the legs and palpi are yellow, covered thickly with white hairs.

We have a single male from California.

Pellenes Birgei, n.

Pl. I, fig. 8.

♂. Length, 5 mm. Legs, 3412.

Quadrangle of eyes slightly wider behind, and one-quarter wider than long. First row of eyes straight, middle touching, and lateral eyes a little separated; the middle eyes are twice as large as the lateral. Second row about halfway between the others. Clypeus two-thirds as high as the middle eyes. The first leg has a fringe of moderately long hair on the upper side of the femur, patella and tibia, pure white on the femur, not so white on the other joints; on the under side of the same articulations there is also a fringe, which is dark in color, and not quite

so long. Labium as long as wide, and nearly half as long as maxillae.

The clypeus is white with some fawn-colored hairs under the middle eyes which reach on to the upper part of the falces. The white of the clypeus extends in a band along the lower margin of the cephalothorax, passes up behind the dorsal eyes, and is continued forward, more or less distinctly, to the anterior lateral eyes. The cephalic plate and the sides are fawn-colored. The sides and base of the abdomen, and a median longitudinal band are white, and the other parts reddish-brown. The legs and palpi, excepting the tarsi, are covered with short white hairs.

We have one male sent to us by Prof. Cockerell, from Mesila Park, New Mexico.

Pellenes Townsendii, n.

Pl. I, fig. 9.

♀. Length, 5.5 mm. Legs, 3412, first a little the stoutest.

The quadrangle of the eyes is one-fourth wider than long, and a little wider behind than in front. The front eyes are all plainly separated and form a strongly curved row, the middle being twice as large as the lateral. The second row is halfway between the other two. The third row is not so wide as the cephalothorax. The clypeus is two-thirds as wide as the middle eyes. The labium is more than half as long as the maxillae, which are rounded.

The cephalothorax is covered with fawn-colored hairs. There is a white band running from the clypeus up between the middle eyes, and then backward on the cephalic part, widening as it goes, until it fills all the space between the dorsal eyes. There is a white band around the margin, which is joined behind by two white bands which run from the lateral eyes along the upper sides, and downward on the thoracic slope. The face is very striking. The first row of eyes is strongly curved, and from the outer side of each of the large middle eyes a broad brown streak runs outward and obliquely downward. The two middle eyes are separated by white hairs, which also cover the middle part of the clypeus and the spaces under the lateral eyes. The falces are brown and vertical. The abdomen has a fawn-colored region on each side of the dorsum, a white encircling band, which is jagged on the inner side, and, down the middle, a white band which is made up of a series of blunt arrowheads, which point forward. The palpi and legs are brown, with black spines and white hairs, the first legs being the darkest.

While in the marking of the clypeus this species bears a strong resemblance to *carolinensis* and *sabulosus*, *Townsendii* is distinct

from them by the median longitudinal white band running throughout the length of the abdomen.

We have one female from Texas, sent to us by Mr. Townsend.

***Pellenes carolinensis*, n.**

P1. I, figs. 10-10b.

A distinctly marked, black and salmon-colored species.

♀. Length, 5.5-7 mm. Legs, 3412, first and second a little stouter than the others.

The quadrangle of the eyes is equally wide in front and behind, and is one-third wider than long. The front row is straight, with the middle eyes subtouching, and twice as large as the lateral, which are separated from them. The maxillae are rounded, and are more than twice as long as the labium. The clypeus is two-thirds as wide as the middle eyes.

The hairs on the cephalic part are bright yellowish-red over the first row of eyes, and silvery further back. There is a scalloped, salmon-colored band behind the dorsal eyes. The lower margin has a black line between two white lines. In our specimens the other parts of the cephalothorax are rubbed bare, excepting the clypeus, which is white in a band along the margin, in a large spot under each lateral eye, and in a narrow band which begins just between the middle eyes, and widens as it passes downward to the margin, and which has an oblique chestnut-colored band running outward from below each of the middle eyes. The abdomen is velvety black, with markings of a bright pinkish and salmon-color, there being a wide transverse band near the front end, an oblique band on each side, further back, two oblique marks in the middle and two irregular, sometimes continuous spots on the posterior part of the dorsum, and two dots near the spinnerets. The pattern is complicated by a sprinkling of salmon-colored hairs, which surround the posterior part of the dorsum. The legs are yellowish, and are covered with white and salmon-colored scales.

Carolinensis bears a general resemblance to *viridipes* but is distinguished by the chestnut-colored hairs on the clypeus.

We have several females from Charleston, S. C.

***Pellenes sabulosus*, n.**

Pl. I, figs. 5, 11-11a.

A very dark species, with indistinct markings.

♀. Length, 6-8 mm. Legs, 3412.

The quadrangle of the eyes is equally wide in front and behind, and is one-fourth wider than long. The front row of eyes is slightly curved, the middle eyes being slightly separated and not

quite twice as large as the lateral, which are further from them than they are from each other. The clypeus is a little more than one-half as wide as the middle eyes. The maxillae are twice as long as the labium, and are rounded.

The integument of the cephalothorax is black, with a short covering of yellow hairs. There are wide white bands on the sides, which unite behind, but do not run up on to the thorax. The margin has a black line between two white lines. The clypeus is much like that of *carolinensis* but lacks the white margin. It has a white spot in the middle, running from between the middle eyes to the falces, and an oblique chestnut-colored spot passing outward from under each of the middle eyes to the margin. Above these, below the lateral eyes, it is white. The abdomen is black, mottled with gray, with a lighter basal band running on to the sides. There are two pairs of gray spots on the anterior part of the dorsum and a central gray spot further back. Near the spinnerets are two snow-white dots. The legs have the coxae and trochanters yellow, contrasting strongly with the other joints, which are dark, with many white hairs. The front faces of the falces are thinly covered with white hairs. The under parts are light gray.

We have several females from Georgia.

Pellenes simplex, n.

Pl. I, fig. 12.

♀. Length, 5.5 mm. Legs, 3412, first and second stoutest.

The quadrangle of the eyes is slightly wider behind than in front, and is one-third wider than long. The front eyes are all separated and form a curved row, the middle being twice as large as the lateral. The maxillae are more than twice as long as the labium, and are wide, and slightly rounded. The clypeus is nearly as wide as the middle eyes.

The cephalic plate is covered with short yellow hairs and a thin growth of long black hairs; on the sides of the cephalothorax the hairs are white, and the lower margin has a black line between two white lines. The upper thoracic part, in our single specimen, is rubbed bare. The abdomen has gray hairs around the base and sides, and in an irregular band down the middle, and a dark band on either side which becomes black where it forms the scalloped outline of the gray side bands. The legs and palpi are yellow, with white hairs. The clypeus and the spaces between the eyes are covered with yellowish-white hairs, and the reddish-brown falces have white hairs growing thinly over their front falces.

We have one female from Vera Cruz, Mexico.

Pellenes griseus, n.

Pl. I, fig. 13.

A yellowish-gray species.

♀. Length, 6 mm. Legs, 3412.

The quadrangle of the eyes is wider behind than in front, is one-third wider than long, and occupies scarcely more than one-third of the cephalothorax. The front row of eyes is nearly straight. The middle eyes are subtouching, and are twice as large as the lateral, which are separated from them. The clypeus is nearly as wide as the middle eyes. The maxillae are more than twice as long as the labium, and are rounded.

The cephalothorax is covered with gray hairs, the margin having a black line between two white lines. The clypeus is covered with white hairs. The abdomen is gray, with a central white band on the posterior part, on the sides of which are oblique chestnut-colored bars. The legs are yellow, with gray hairs.

We have a single female from Utah.

Pellenes candidus, n.

Pl. I, fig. 14.

♀. Length, 6.5 mm. Legs, 3412.

The quadrangle of the eyes is one-fourth wider than long, and is equally wide in front and behind. The anterior eyes are all separated, and form a straight row, the middle being twice as large as the lateral. The clypeus is three-fourths as high as the middle eyes.

Under alcohol the spider is of a pale yellowish color, the eye-region being darker than the rest, with an indistinct, light, herring-bone stripe on the abdomen. When dry, the upper surface of the cephalothorax, and the entire abdomen, above and below, are closely covered with yellowish-gray hairs, giving a pale golden tint, with scattering, long, black hairs over all. There are white hairs on the sides and posterior thoracic slope of the cephalothorax. The clypeus and the spaces between the eyes have long white hairs, which are also found on the palpi. The falces are brown with a few white hairs, and the legs reddish, with white scales.

We have one female from Salt Lake City, Utah.

Pellenes nemoralis, n.

Pl. I, fig. 15.

♀. Length, 5.3 mm. Third leg, 5 mm. Legs, 3412. First leg longer than second by tarsus and metatarsus. Third leg longer than fourth by tarsus.

Quadrangle of eyes a little wider behind. First row slightly curved, middle eyes of first row a little separated; lateral separated from the middle eyes by fully two-thirds of their own diameter; middle not quite twice as large as the lateral eyes. Eyes of the third row a little smaller than the lateral eyes of the first row, placed a little further from each other than from the lateral borders, on the margin of the cephalothorax. Clypeus two-thirds as high as the middle eyes of the first row. Maxillae nearly square, truncated in front, straight on the inner edges. Labium as wide as long, more than one-half as long as maxillae. Anterior coxae separated by a little more than the width of the labium. Sternum oval. General color brown. This specimen has the eye-region covered with white and copper-colored hairs, and has patches of the same on the abdomen, where, however, they are nearly all rubbed off, leaving pale chevrons and mottlings visible. Clypeus covered with thick white hairs. Falces brown, with some white hairs. Legs light brown, with some light-colored and white hairs. Habitat: Arizona.

See remarks under *superciliosus* and *dolosus*.

***Pellenes superciliosus*, n.**

Pl. I, fig. 16.

♀. Length, 7 mm. Third legs 5.4 mm. Legs, 3412. First leg longer than second by tarsus and a little of metatarsus. Third leg longer than fourth by tarsus and metatarsus.

Quadrangle of eyes a little wider behind. First row slightly curved, with the middle eyes a little separated, and the lateral separated from the middle by one-half their own diameter; middle twice as large as lateral eyes. Above the eyes of the first row is a ridge of upright black hairs, thickest and longest in the middle. Eyes of the third row as large as lateral eyes of the first row, and equally distant from each other and the lateral borders. Clypeus about as high as middle eyes of first row. Maxillae rounded in front and on inner edges. Labium about as wide as long, one-half as long as maxillae. Sternum oval. Anterior coxae separated by less than the width of the labium.

Cephalothorax covered with a mixture of short white and red hairs. Abdomen, in this specimen, showing a few similar hairs at the spinnerets, but otherwise rubbed bare, the integument being reddish-brown, with chevrons, oblique bands on the sides, and many small spots, pale. Clypeus covered with white hairs. Falces brown with sparse white hairs. Legs light yellowish, barred with blackish.

Habitat: Arizona.

Distinguished from *dolosus* and *nemoralis* by the upright hairs over the first row of eyes.

***Pellenes politus*, n.**

Pl. I, fig. 17.

♀. Length, 6.5 mm. Legs, 3412, first and second stoutest.

The quadrangle of the eyes is a little wider behind than in front, and is one-fourth wider than long. The front eyes are in a straight row, the middle subtouching and fully twice as large as the lateral, which are a little separated from them. The clypeus is two-thirds as wide as the middle eyes. The maxillae are more than twice as long as the labium, and are rounded.

The whole body is thinly covered with a mixture of white and rufus hairs. On the cephalic part are three longitudinal white bands. The sides of the cephalothorax are white, and the margin has a black line with a white line below it. The abdomens of our specimens are badly injured, showing only a white basal band, and two white spots near the spinnerets. The hairs around the front middle eyes are rufus above and below, and white on the sides. The middle of the clypeus has a large snow-white triangle, the apex being above, and the broad base covering the margin. Running obliquely outward from below the middle eyes, are two chestnut-colored bars, and outside of these, running from between the lateral and middle eyes, two oblique snow-white bands. Just under each lateral eye is another short chestnut-colored streak. The legs are brown with white hairs.

We have two females from New Mexico, sent us by Prof. Cockerell.

***Pellenes placidus*, n.**

Pl. I, fig. 18.

♀. Length, 7 mm. Legs, 3412.

Quadrangle of eyes plainly wider behind, and one-third wider than long. First row of eyes straight, all touching, the middle fully twice as large as the lateral. The second row is halfway between the other two. Clypeus very nearly as high as the middle eyes. Labium as wide as long, and about one-half the length of the maxillae. The sternum is light brown.

The cephalothorax is entirely covered with fawn-colored hairs. Along the lower margin, but not passing over the clypeus, is a narrow black line. The sides of the abdomen are covered with fawn-colored hairs; along the middle is a light-colored band that reaches neither the apex nor base; the band is of irregular outline. On each side of the band, the abdomen is dark brown. All the legs are yellowish-brown, with many white hairs.

We have one female from Chihuahua, Mexico.

Pellenes cognatus, n.

Pl. I, fig. 19.

♀. Length, 6 mm. Legs, 3412, first a little the stoutest.

The quadrangle of the eyes is wider behind than in front, and is one-third wider than long. The front eyes are all separated, and form a straight row, the middle being plainly twice as large as the lateral. The second row is halfway between the other two. The third row is not so wide as the cephalothorax. The labium is wider than long, and half as long as the maxillae. The clypeus is one-half as wide as the middle eyes. The cephalothorax and abdomen are covered with a close mixture of fawn-color, white and black, the white predominating to form three longitudinal bands on the cephalic part, one down the middle, and one on each side, an encircling band on the abdomen, and a band of three white chevrons, or arrow-heads, in the middle of the dorsum, this band reaching neither extremity. On the margin of the cephalothorax is a narrow line of black. The eyes are surrounded by yellowish-white hairs, which also cover the clypeus. Under each of the middle eyes, at the outer edge, there is a spot faintly tinged with chestnut, which passes downward to the black marginal line. The legs and palpi are light brown, thickly covered with white hairs. The falces are brown.

This species is much like *placidus*, from Mexico, but the shield to the opening of the epigynum is not widened in front. The whitish bands on the cephalic part, and around the abdomen, and the spots on the clypeus, also serve to distinguish it.

We have two females, one from Kansas, and one from New Mexico, sent to us by Prof. T. D. A. Cockerell.

Pellenes dolosus, n.

Pl. I, fig. 20.

♀. Length, 7.5 mm. Third leg, 5.5 mm. Legs, $\overline{3412}$. First leg longer than second by tarsus and metatarsus. Third leg longer than fourth by tarsus and metatarsus.

Quadrangle of eyes a little wider behind. First row straight, with all the eyes subtouching; middle fully twice as large as the lateral and projecting. Eyes of the third row as large as the lateral eyes of the first row, placed a little further from each other than from the lateral borders. Clypeus one-half as high as middle eyes of first row. Maxillae as wide as long, truncated in front, rounded on inner sides. Labium fully as wide as long, less than one-half as long as maxillae. Anterior coxae separated by about the width of the labium. Sternum oval.

Cephalothorax blackish, pretty generally covered with short white hairs. The abdomen in this specimen has the hairs almost entirely rubbed off, only a few white ones remaining at the base. The integument is blackish, with pale chevrons and mottlings. Clypeus thickly covered with white hairs. Falces brown. Legs and palpi, light brown, the first legs being a little darken than the others, with some light-colored and white hairs. Habitat: Arizona.

Distinguished from *nemoralis* by the eyes of the first row, which in this species are all subtouching, and form a straight row, while in *nemoralis* they are separated and form a curved row.

***Poultonia*, gen. nov.**

Pl. II, figs. 1-1b.

Small spiders. The cephalothorax is rather high, not much longer than wide. Sides nearly parallel and vertical, highest at dorsal eyes from which point it slants in both directions.

The quadrangle of eyes is one-fifth wider than long and is wider in front. The first row of eyes is a little curved, and the cephalic slant is so great that these eyes look down; the middle are subtouching, the lateral are a little separated. All the eyes of this row are large, the lateral being four-fifths as large as the middle, the eyes of the second row are about halfway. The dorsal eyes are as large as the lateral, are as wide as the cephalothorax at that place, and stand out distinctly. The quadrangle occupies one-half of the cephalothorax. The thoracic plate slants slightly in its first half and thereafter abruptly. The abdomen is small; the upper spinnerets are very long, almost equalling in length the abdomen. Legs, 4312, all slender.

This genus is founded on a spider from South America, *P. caudata*, and is named for our friend, Prof. E. B. Poulton of Oxford University.

***Poultonia caudata*, n.**

Pl. II, figs. 1-1c.

Small spiders with spinnerets nearly as long as the abdomen.

♂. Length, 3.5 mm. Legs, $\overline{4312}$, all slender.

The cephalothorax has the cephalic part covered with fawn-colored, and the thoracic with grayish-brown hairs. The abdomen has grayish-brown hairs, which show reddish metallic reflections when thoroughly dried. It is probable that the cephalothorax also had metallic coloring, in life. The upper spinnerets are covered with grayish-brown hairs except at the end, where they are enlarged and black. The legs are all yellow. The femur

of the first has a black, longitudinal band, and the tibia and metatarsus have each two longitudinal black lines. Nearly all the joints of the other legs have longitudinal black lines with some additional oblique ones on the femur of the third and of the fourth. The clypeus is nearly as wide as the large middle eyes, and has two transverse white bands with a narrow black line between them. The palpi are yellow with white hairs, and have the under side of the distal end of the femur black with a bunch of black hairs. The patella has a black ring at the distal end. The falces are vertical and rather weak.

We have several males from Chapada and Sao Paulo, sent to us by Mr. Moenkhaus.

***Grauhara*, gen. nov.**

Pl. II, figs. 2-2b.

This genus, which belongs to the *Homalattus* Group, is distinguished by its slender shape and elongated first legs.

The cephalothorax is moderately high and is two-thirds as wide as long. It is narrow in front, but bulges out at the dorsal eyes. The sides are nearly vertical. The cephalic part is a little inclined forward, and the thoracic drops almost immediately behind the dorsal eyes. The quadrangle of the eyes occupies a little more than half of the cephalothorax, is one-fifth wider than long, and a little wider in front than behind. The front eyes are all close together in a straight line, the middle ones being plainly more than twice as large as the lateral, and bulging forward. The second row is nearer the first than the third, and the third is nearly as wide as the cephalothorax. The first legs are elongated. The falces are horizontal and short. The maxillae are rounded, and the labium is small.

***Grauhara vivida*, n.**

Pl. II, figs. 2-2d.

This is a graceful species with brown and white coloring. It is readily distinguished by the large eyes of the first row, and by the shape of the fangs, which are notched on the outer side.

♂. Length, 4 mm. Legs, 1423, the first much elongated, with the coxa and trochanter reaching to within a third of the distal end of the femur of the second.

The cephalothorax is brown with the eye-region covered with white hairs, and two small spots of white on the posterior slope of the thorax. The abdomen is brown, the posterior fifth being much darker than the rest, the two color regions being marked off sharply. A white band runs along each side, ending abruptly where the color darkens, and just above the spinnerets there is

a white spot. The legs are not at all hairy. The first pair is brown, elongated, and somewhat thickened; the others are slender, rather short, and pale yellow. The palpi are rather long, and are pale brown in color. The falces are brown, and are short, horizontal and wide, the width at the end being equal to the length. There is a wide apophysis at the distal end, on the inner side, upon which is a small tooth. The fang has a notch on the outer side of the proximal end.

We have one male from Santarem, Brazil, sent to us by Mr. Moenkhaus.

***Irura*, gen. nov.**

Pl. II, figs. 3-3b.

This very distinct genus belongs to the *Homalattus* Group, being most closely allied to *Rhene*, but differing from that genus in having the upper surface of the cephalothorax flat, and a wider quadrangle of the eyes.

Both cephalothorax and abdomen are short, wide and rounded, the cephalothorax being plainly wider than long and widest behind the dorsal eyes. It is very low, and is perfectly flat on top. The sides are nearly vertical. The quadrangle of the eyes occupies slightly more than half of the cephalothorax, is twice as wide as long, and is plainly wider behind than in front. The front middle eyes are close together, the lateral being separated from them, and about half as large. This first row is straight. The second row is plainly nearer the first than the third, and the third is not quite so wide as the cephalothorax. The falces are short, vertical, robust and slightly divergent. The first legs have the joints thickened.

***Irura pulchra*, n.**

Pl. II, figs. 3-3c.

Small spiders, covered with pinkish iridescent scales. The femur of the first leg is iridescent steel blue, with a fringe of white hairs.

♀. Length, 4 mm. Legs, 1423.

The cephalothorax is dark colored with a covering of brilliant pinkish iridescent scales. The ground-color of the abdomen is pale yellow, with two pairs of darker spots, the posterior pair being larger than the others and placed in the middle of the dorsum. The whole is covered with iridescent scales, those on the central part being golden, while around the edges they are pink and green. The first legs and the palpi have the joints thickened with a covering of pinkish iridescent scales. The femur of the first leg, on the front, or inner side, is iridescent steel-blue,

with a thin fringe of white hairs. The patella is as long as the tibia, and both of these joints have a thin fringe of brown hairs on the inner side. The other legs are yellow.

One female from Ceylon, sent to us by Rev. O. P. Cambridge.

***Tacuna*, gen. nov.**

Pl. II, figs. 4-4b.

This genus differs from *Rhene* in having the cephalothorax low and flat, and the quadrangle of the eyes only a quarter wider than long. In *Irura* it is twice as wide as long.

The cephalothorax is low and flat, and is as wide as long, the widest point being at the dorsal eyes. The thoracic part is truncated, and the sides are almost vertical. The quadrangle of the eyes occupies two-thirds of the cephalothorax, is one-fourth wider than long, and is very much wider behind than in front. The first row of eyes is very slightly bent downward. The middle eyes are close together and are about twice as large as the lateral, which are slightly separated from them. The second row is nearer the first than the third. The third row is nearly as wide as the cephalothorax. The relative length of the legs is 1423, the first being much the longest.

***Tacuna delecta*, n.**

Pl. II, figs. 4-4c.

Small brown spiders with the tibia of the first leg nearly as wide as long, and bearing a stiff ridge of hairs. Metatarsus and tarsus of the first leg very slender.

♂. Length, 3 mm. Legs, 1423, the first much the longest, with the femur and tibia enlarged.

The whole spider is brown, the cephalothorax being much darker than the abdomen. It seems to have been covered with white hairs, but in our single specimen these are nearly all rubbed away excepting on the sides of the cephalothorax, where they grow rather thinly, with the points directed upward. On the abdomen are three pairs of black dots. The first leg is much enlarged. There is nothing conspicuous on the femur and patella, but on the under side of the tibia there is a stiff spiny ridge of black hairs. The metatarsus and tarsus are very slender. All the legs are yellowish brown. The falces project very slightly forward, and are delicate and tapering, with rather long fangs, and toothed apophyses on the inner sides. The labium is wide and the maxillae are rounded.

We have one male from Rio Janeiro, sent to us by Mr. Moenkhaus.

Homalattus hispidus, n.

Pl. II, figs. 5-5a.

This species is very distinct through the ornamental hair tufts at the anterior end of the abdomen, but is difficult to place generically since it goes almost equally well into *Homalattus* and *Beata*, while it agrees perfectly with neither.

♀. Length, 7 mm. Legs, 1423, not very different in length, the first stoutest.

The widest point of the cephalothorax is at the dorsal eyes. The cephalic part is a little inclined, while the thoracic falls slightly in the first half and then abruptly, the posterior slope being truncated. The quadrangle of the eyes occupies about one-half of the cephalothorax, is one-third wider than long and is plainly wider behind than in front. The front eyes are in a straight row, the middle touching and less than twice as large as the lateral which are a little separated from them. The second row is nearer the first than the third.

The cephalothorax is golden brown. Above the first row of eyes are five tufts of hairs, the middle and the two external ones being white, while the other two are reddish-brown. From the lateral eye, on each side, a band of white hairs runs to the posterior end, the hairs lengthening into a white tuft behind each dorsal eye. The abdomen is yellow with a mottled pattern of spots and chevrons in white, which may be best understood by the illustration. At the anterior end are three tufts of stout yellow hairs, and behind these are two tufts of yellow hairs with little bunches of black hairs above them. When not perfectly dry these hairs form an untidy mass as in the drawing. The clypeus is covered with white hairs. The falces are brown, with an oblique band of white hairs across the front face, and a fringe of white hairs at the end. The palpus has long white hairs on the tibia and tarsus. The legs are brown and are short and stout.

We have one female from San Rafeal, Mexico, sent to us by Mr. Tyler Townsend.

Explanation of Plates.

Plate I.

- Fig. 1, *Pellenes Howardii*, dorsal view of male, X 8; 1a, palpus; 1b, epigynum.
- Fig. 2, *P. brunneus*, palpus.
- Fig. 3, *P. elegans*, palpus.
- Fig. 4, *P. tranquillus*, palpus.
- Fig. 5, *P. festus*, palpus.
- Fig. 6, *P. Klauserii*, palpus.
- Fig. 7, *P. limatus*, palpus.
- Fig. 8, *P. Birgei*, palpus.
- Fig. 9, *P. Townsendii*, epigynum.
- Fig. 10, *P. carolinensis*, dorsal view of abdomen of female; 10a, face of female; 10b, epigynum.
- Fig. 11, *P. sabulosus*, face of female; 11a, epigynum.
- Fig. 12, *P. simplex*, epigynum.
- Fig. 13, *P. griseus*, epigynum.
- Fig. 14, *P. candidus*, epigynum.
- Fig. 15, *P. nemoralis*, epigynum.
- Fig. 16, *P. superciliosus*, epigynum.
- Fig. 17, *P. politus*, epigynum.
- Fig. 18, *P. placidus*, epigynum.
- Fig. 19, *P. cognatus*, epigynum.
- Fig. 20, *P. dolosus*, epigynum.

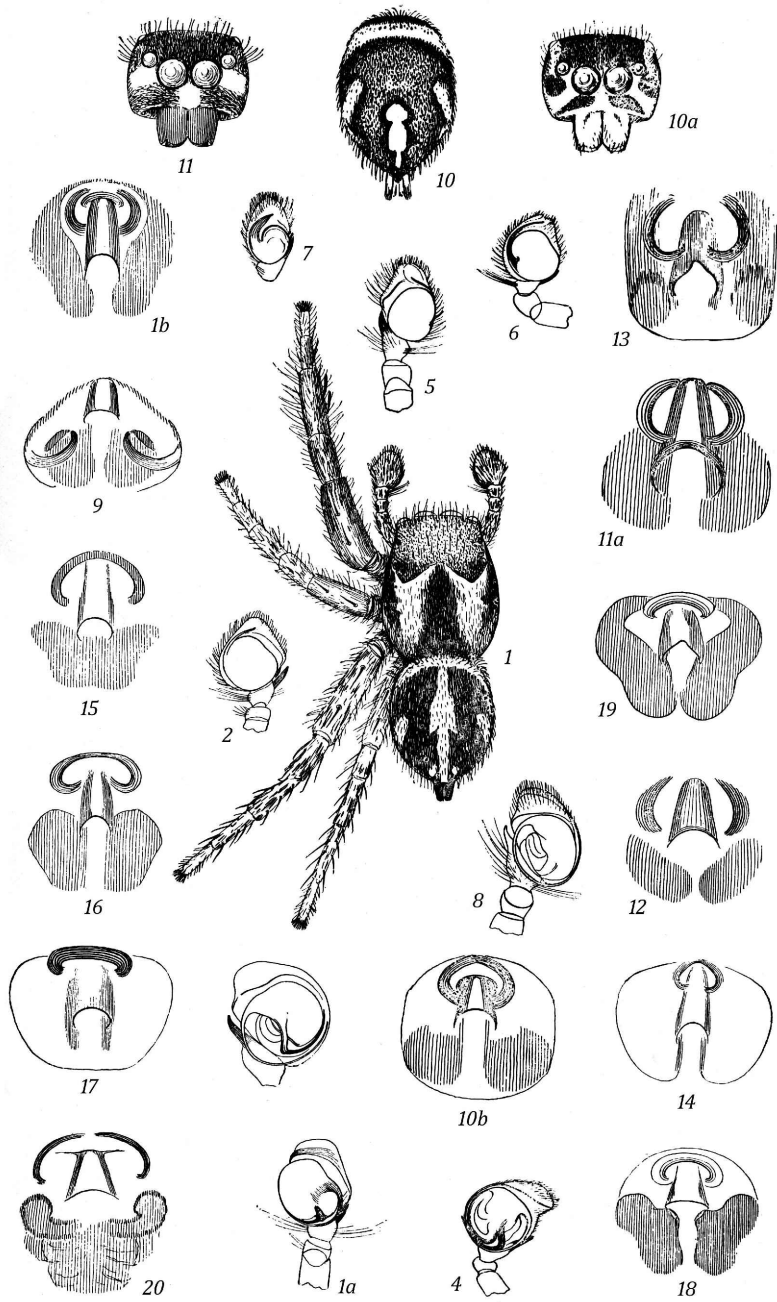


PLATE I.

Plate II.

- Fig. 1, *Poultonia caudata*, dorsal view of male, X 8; 1a, side view of cephalothorax of male; 1b, face of male; 1c, palpus.
- Fig. 2, *Grauhara vivida*, dorsal view of male, X 8; 2a, side view of cephalothorax of male; 2b, face of male; 2c, ventral view of palpus; 2d, side view of palpus.
- Fig. 3, *Irura pulchra*, dorsal view of female, X 8; 3a, side view of cephalothorax of female; 3b, face of female; 3c, epigynum.
- Fig. 4, *Tacuna delecta*, dorsal view of male, X 8; 4a, side view of cephalothorax of male; 4b, face of male; 4c, palpus.
- Fig. 5, *Homalattus hispidus*, dorsal view of female, X 8; 5a, - epigynum.

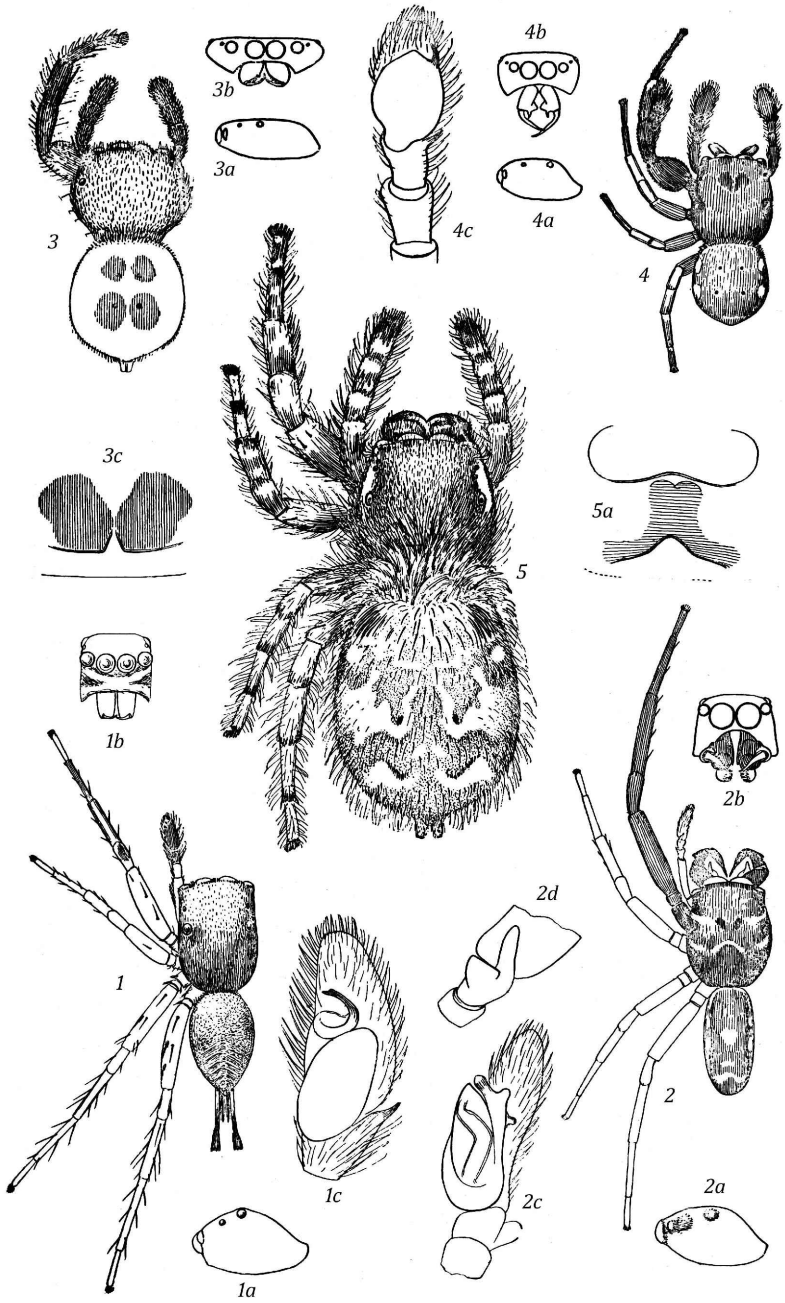


PLATE II.

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