

BULLETIN OF THE UNIVERSITY OF UTAH

Volume 23

April, 1933

No. 4

Spiders of the Raft River Mountains of Utah

BY

RALPH V. CHAMBERLIN
and WILTON IVIE

BIOLOGICAL SERIES, Vol. II, No. 2



PUBLISHED BY
THE UNIVERSITY OF UTAH
SALT LAKE CITY

THE UNIVERSITY PRESS
UNIVERSITY OF UTAH
SALT LAKE CITY

Spiders of the Raft River Mountains of Utah

By RALPH V. CHAMBERLIN AND WILTON IVIE

An expedition to the Raft River Mountains, located in northwestern Utah near the Idaho and Nevada borders, was sponsored by the departments of Zoology and Botany of the University in September, 1932. The authors of this paper devoted themselves primarily to the collecting of spiders of which a total of 135 species were taken. These represent fifteen families and eighty genera. Seven genera and twenty-seven species are described as new.

The following tabulation indicates the numerical distribution of the species and genera among the different families.

<i>Family</i>	<i>Genera</i>	<i>Species</i>	<i>New Genera</i>	<i>New Species</i>
Aviculariidae	1	1	0	0
Dictynidae	3	5	0	1
Scytodidae	1	1	0	0
Gnaphosidae	1	10	0	0
Pholcidae	2	2	0	0
Theridiidae	8	10	1	2
Linyphiidae	22	42	5	19
Argiopidae	5	8	0	0
Mimetidae	1	1	0	0
Thomisidae	8	12	0	0
Clubionidae	7	12	1	2
Agelenidae	3	6	0	2
Lycosidae	4	12	0	0
Oxyopidae	1	1	0	0
Salticidae	7	12	0	1
TOTAL	80	135	7	27

The localities at which collections were made and the dates of the same are as follows:

- Sept. 4, 1932 Clear Creek.
- 5 From Clear Creek to South Fork of Raft River;
Yost.
- 6 & 7 South Fork of Raft River, 8 mi. south of Lynn.
- 8 Lynn; Grouse Creek.
- 9 Dove Creek; Park Valley.

AVICULARIIDAE

Brachybothrium hageni Chamberlin

South Fork of Raft River. Male and female.

The female was under a cottonwood log, the male under a piece of sagebrush. Neither had a distinct burrow.

This species appears to be common throughout the northern half of Utah.

DICTYNIDAE

Amaurobius americanus (Emerton)

Clear Creek; Lynn; Grouse Creek; Dove Ceek. Females and immature.

Common under rocks in dry places.

Argenna sp.

South Fork of Raft River. Immature.

Dictyna uintana Chamberlin

Clear Creek; Yost; South Fork of Raft River; Grouse Creek. Females and immature.

Collected mostly from sifting fallen leaves.

Dictyna vincens Chamberlin

Clear Creek; South Fork of Raft River. Immature.

In webs on weeds.

Dictyna idahoana Chamberlin and Ivie, new species

(Pl. I, ff. 1-3)

Carapace dark brown, lighter on top of head, which is made still lighter by a dense covering of white hairs arranged in five longitudinal rows. Chelicerae, labium and endites very dark brown with black pubescence. Sternum light to dark brown covered with white pubescence. Legs and palpi of female light yellowish-brown, with dusky markings, these as follows: distal ends of femur, tibia, metatarsus, and tarsus darkened; a dark ring on patella just distad of middle, and usually a fainter broader band around middle of tibia. Legs covered with numerous short black hairs and scale-like white hairs.

Abdomen light gray with a yellowish tint, and with black designs above, consisting of an irregular, uadally expanding median mark on basal half, and two rows of irregular and more or less longitudinally confluent rows of spots on distal half, which usually connect with the basal mark anteriorly, and meet just above the spinnerets posteriorly. Sides more or less black or gray, broken by vertical light streaks. A

broad black median band including spinnerets on venter; each side of this band whitish; area anterior of epigastric furrow dusky. Black areas with black scale-like hairs and light areas covered with short white scale-like hairs, which also encroach on the black areas, especially on the sides, where they sometimes entirely replace the black hairs.

Structure.—*Male*: Carapace with thoracic part sub-circular; head narrow and extending far beyond thorax. Thoracic part widest near middle; sides rounded; base shallowly emarginate; cervical constrictions prominent on margin; head expands somewhat anteriorly then narrows again. Clypeus truncate across front. Thoracic part moderately convex; head compressed and high, rising caudad of eyes, then sloping rather steeply to median depression, which is a shallow pit. Clypeus about two and one-half times the diameter of an anterior median eye.

Eye area occupying more than half the width of the head. Posterior eye row slightly longer than anterior. Eyes about equal, the anterior medians being slightly smaller than the others. Both rows straight. The anterior eyes about equidistant, slightly more than the diameter of an anterior median eye apart. The posterior median eyes a little more than the diameter apart and slightly farther from the side eyes. Lateral eyes contiguous; median eyes a diameter of a posterior median eye apart. Median ocular area very slightly wider than long and faintly wider behind than in front.

Chelicerae long and slender; front concavely bowed in as viewed from the side; a rounded nodule at base in front. From a front view they are seen to be contiguous at base and near apex, with a wide hollow space between, which is nearly as wide as the width of a chelicera, and about twice as long as wide; sides bulging laterally opposite median hollow; an oblique keel on mesal side of each chelicera near apex and about one-third length of chelicerae, the edges of the two keels fitting together; the keel with several small teeth on its apical end; fang small, simple.

Endites elongate, more than twice as long as wide, slightly convergent, but not touching. Labium large, sub-triangular, nearly two-thirds length of endites, longer than wide. Sternum large; nearly as wide as long; truncate across front; corners rounded; sides rounded, widest between second and third coxae; short blunt process behind separating hind coxae.

Two front pairs of legs long; the others of moderate size. Legs I, II, IV, III; simple; tapering, without spines. Calamistrum distinct, extending about three-fourths the length of metatarsus IV. Palpus of average size; structures as shown in figures.

Abdomen ovoid, widest in front of middle, highest at base, wider than high, flattened on top. Spinnerets sub-apical, moderately large; cribellum distinct.

Female: Carapace similar to male, but head shorter, broader, less elevated and more convex across clypeus. Clypeus about two times diameter of anterior median eyes. Eyes similar to male, except posterior medians which are nearly two diameters apart and slightly nearer the lateral eyes; median ocular area decidedly wider than long; anterior median eyes about one and one-third diameters apart, slightly nearer side eyes. Chelicerae of usual shape, vertical, corners rounded, contiguous throughout length; fang short. Endites about two times as long as wide, convergent, but not touching. Labium large, about as wide as long, apically truncate, more than half length of endites. Sternum heart-shaped, longer than wide, similar to that of male. Legs all of moderate length, otherwise similar to those of male; I, II, IV, III. Palpus moderately stout.

Abdomen broadly elliptical, widest at middle; ends broadly rounded, fuller and more rounded than in male, otherwise similar.

Measurements:

MALE

Length: 3.2 mm.

Cephalothorax: Length 1.40, width 1.03, head .60 mm.

Abdomen: Length 1.73, width 1.2 mm.

Chelicerae: .88 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.36	.33	.28	.26	.....
Trochanter .....	.16	.16	.13	.13	.13
Femur	1.48	1.13	.80	.93	.50
Patella .....	.40	.33	.33	.36	.20
Tibia	1.26	.93	.53	.66	.21
Metatarsus	1.06	.86	.57	.73	.....
Tarsus .....	.60	.53	.34	.33	.66
TOTAL	5.32	4.27	2.98	3.40	1.70

FEMALE

Length: 3.4 mm.

Cephalothorax: Length 1.43, width 1.11, head .63 mm.

Abdomen: Length 2.46, width 1.83.

Chelicerae: .55 mm

Legs:	I	II	III	IV	Palpus
Coxa .....	.33	.33	.30	.33	.....
Trochanter .....	.15	.15	.15	.15	.11
Femur	1.08	.86	.73	.90	.35
Patella .....	.43	.40	.36	.63	.20
Tibia .....	.80	.60	.43	.63	.20
Metatarsus .....	.73	.60	.46	.63	.....
Tarsus .....	.48	.46	.40	.40	.43
TOTAL	4.00	3.40	2.83	3.67	1.29

Type locality.—Thousand Springs Ranch, near Twin Falls, Idaho.

Other locality.—Grouse Creek. One female. In web on weed.

GNAPHOSIDAE

7

SCYTODIDAE

Loxosceles rufipes (Lucas)

Clear Creek. One immature. Probably this species.
Appears to be quite common throughout most of the state.

GNAPHOSIDAE

Gnaphosa gigantea Keyserling

Clear Creek; Yost; South fork of Raft River. Females and immature.

Common among fallen leaves and under bark of logs.

Gnaphosa hirsutipes Banks

Grouse Creek. One female.

Gnaphosa californica Banks

Grouse Creek. One female.

Herpyllus propinquus (Keyserling)

Lynn. One female.
Under rock on dry hillside.

Poecilochroa montana Emerton

Clear Creek; Lynn. Immature.
Under bark of dead trees.

Drassodes celes Chamberlin

Raft River Mountains; precise station not known. One female.

Orodassus coloradensis (Emerton)

South Fork of Raft River. Male and females.
Under bark of dead trees.

Zelotes subterreaneus (C. Koch)

Clear Creek; Creek east of Yost; Yost; South Fork of Raft River.
Males and females.

Common under rocks and logs on damp ground.

Zelotes tuobus Chamberlin

Dove Creek. One male.

Drassyllus apachus Chamberlin

Grouse Creek. One female.

PHOLCIDAE

Psilochorus utahensis Chamberlin

Clear Creek; Lynn; Grouse Creek. Males and females.
Common under rocks in dry localities.
Found abundantly throughout the state.

Pholcophora americana Banks

Lynn. One female
Common in Utah; Idaho; Colorado; Nevada; northern California.

THERIDIIDAE

Latrodectus mactans (Fabricius)

Clear Creek; Grouse Creek. Immature.
Common under rocks in dry places.
Abundant throughout the state.

Lithyphantes corollatus (Linnaeus)

Clear Creek; South Fork of Raft River; Lynn; Grouse Creek.
Females and immature.
Common under rocks in dry places.

Lithyphantes distinctus (Thorell)

(Pl. I, f. 9)

Steatoda distincta Thorell, Bull. U. S. Geol. Survey, 1877, III, p. 485.

Lithyphantes medialis Banks, Proc. Calif. Acad. Sci., 1898, I, p. 240, pl. xiv, f. 3.

Grouse Creek. One female. The epigynum is less depressed anteriorly in this specimen than is usual, but it is undoubtedly this species.

Described from Colorado; apparently quite common throughout Utah and the southwestern states; also occurs in Mexico.

Enoplognatha mimoides (Chamberlin)

(Pl. I, f. 8)

Lithyphantes mimoides Chamberlin, Pomona College Journ. Ent. & Zool., 1920, XII, p. 8, pl. iii, f. 4.

Park Valley, (female); South Fork of Raft River, (immature).
Under rocks, etc.
Apparently common in Utah.

Euryopis scriptipes Banks

Grouse Creek, (male and female); Clear Creek, (immature).
Under rocks and among fallen leaves.
Common throughout the state.

Steatoda hespera Chamberlin and Ivie, new species

(Pl. I, ff. 4-6)

Very close to *S. borealis* (Hentz), with which it has heretofore been confused. The females are very similar to *borealis* in size, color and shape; the epigynum is quite similar, the antero-lateral rim of the depression being more distinct in this species. The males appear to differ only in the palpal organ, the most noticeable feature being in the large apical process, which is much narrower in *hespera* and lacks the tooth-like process found in *borealis*.

Type locality.—Clear Creek.

Other locality.—South Fork of Raft River. Males and females. Under bark of dead trees, and under rocks and logs near water. Abundant throughout the Rocky Mountains and states west.

Theridion sexpunctatum Emerton

Clear Creek. One immature.

Theridion sp.

Clear Creek; South Fork of Raft River. Immature.
Color markings resemble *T. placens* Keyserling.

Dipoena sp.

Clear Creek. One immature.

Genus **GARRITUS** Chamberlin and Ivie, new

Close to *Robertus* from which it differs principally in the endites and chelicerae. The endites are large and swollen, widened distally, and broadly squared apically. The chelicerae are stout and geniculate, with a large stout tooth on each antero-mesal corner near distal end.

Genotype: **Garritus vigerens** Chamberlin and Ivie, new species

Garritus vigerens Chamberlin and Ivie, new species

(Pl. II, ff. 10-20)

Color.—Carapace reddish-brown with lateral margins, cervical grooves, radial lines and median pit of thorax darker; often a dark patch just anterior to the median pit. Chelicerae, sternum, labium and endites reddish-brown. Legs yellowish-brown on basal segments, more reddish beyond patella. Abdomen dark gray with many small light dots, some of these usually arranged in four longitudinal rows on posterior part.

Structure.—*Male*: Cephalothorax oval, longer than wide; widest between second and third coxae; head rather large, rounded, elevated above thorax; highest about midway between eyes and cephalic pit.

Clypeus convex across anterior margin; width twice the diameter of an anterior lateral eye. Median depression of thorax a small pit. Cervical grooves shallow.

There is some variation in the size and arrangement of the eyes, but the usual condition is as follows: Posterior eye row slightly longer than the anterior row. Both rows very slightly recurved. Anterior median eyes smallest, anterior lateral eyes largest; the order of size is: anterior laterals, posterior laterals, posterior medians, anterior medians. Posterior median eyes slightly more than a radius apart and about one and one-third diameters from the side eyes; anterior median eyes about a diameter apart and a little more than a diameter from the side eyes, and about the same distance from the posterior median eyes. Lateral eyes of each side contiguous. Eye area a little more than half the width of the head. Median ocular area barely longer than wide, slightly wider behind than in front. Anterior median eyes dark and round, the others pearly white, and irregular in shape.

Chelicerae stout; geniculate, rounded; claw stout, simple, the tips of the two claws overlapping; a large stout tooth on each anterio-mesal corner near distal end; furrow with one tooth on upper margin near tip of claw, and two smaller nodule-like teeth on lower margin a little ectad of the tooth on upper margin.

Endites large and swollen; widened distally; broadly squared apically; a little longer than wide; not especially convergent; with several setiferous granules on ectal side. Labium relatively small; wider than long; less than half the length of the endites; trapeziform; narrow apically. Sternum about as wide as long; widened obliquely caudad from labium; widest between first and second coxae; margin with a short obtuse point between each two coxae; pointed behind, slightly separating hind coxae.

Legs moderately robust; relative lengths I, IV, II, III. Anterior tibia plus patella longer than metatarsus plus tarsus. Without spines. Paired claws of tarsus with a comb of six long teeth on under side. Palpus slender; tarsus small, only slightly enlarged.

Abdomen rather small; oval; widest near middle; highest at base; wider than high; about one-fifth of its length overlapping cephalothorax.

Entirely covered, though not densely so, with coarse hair, except carapace which is shiny and nearly glabrous.

Female: Similar to male. Larger; head more robust. Epigynum small. Palpus reaching to about middle of tibia I. Otherwise similar to male.

Measurements:

MALE					FEMALE			
Length: 2.8 mm.					Length: 3.5 mm.			
Cephalothorax: Length 1.6, width 1.26, head 0.9 mm.					Cephalothorax: Length 1.93, width 1.50, head 1.07 mm.			
Abdomen: Length 1.8, width 1.2 mm.					Abdomen: Length 2.0, width 1.4 mm.			
Legs:	I	II	III	IV	I	II	III	IV
Coxa .....	.52	.44	.35	.41	.52	.47	.34	.47
Trochanter .....	.20	.20	.20	.20	.20	.20	.20	.20
Femur	1.26	1.00	.93	1.13	1.30	1.07	.86	1.26
Patella .....	.50	.40	.38	.48	.56	.53	.43	.56
Tibia	1.00	.86	.66	1.07	1.20	.86	.66	1.13
Metatarsus .....	.73	.66	.55	.83	.80	.72	.70	.80
Tarsus .....	.60	.53	.51	.63	.56	.50	.47	.56
TOTAL	4.83	4.09	3.58	4.73	5.14	4.35	3.66	4.98

Type locality.—South Fork of Raft River.

Other localities.—Yost; creek east of Yost; Dove Creek.

Males, females, and immature. In wet grass near water.

Also known from Wisconsin.

LINYPHIIDAE

Erigone dentosa Cambridge

Clear Creek; South Fork of Raft River; Grouse Creek; Creek east of Yost. Males and females.

Common in wet grass.

Erigone viabilis Chamberlin and Ivie, new species

(Pl. III, ff. 21-25)

South Fork of Raft River. Male and female.

Under wet rocks near streams.

Also common at Mirror Lake in the Uintah Mountains.

A large *Erigone* close to *E. hypenema* Cr. and Bish. It differs in the details of the male palpus, especially the femur. In this species the teeth on the femur are more evenly distributed and the bend at the base is not as sharp as in *hypenema*. In size, shape, and color this species is very similar to the latter form.

Eperigone taibo Chamberlin and Ivie, new species

(Pl. III, ff. 26-27; pl. IV, ff. 28-31)

Color.—Carapace, mouth parts, sternum, legs and palpi light orange-brown, the carapace with a few faint dusky marks (radial and cervical lines, etc.); chelicerae with a reddish tint; endites with whitish tips; legs unmarked; some of the structures in the male palpus dark.

Abdomen light yellowish-gray, usually with a faint dorsal median band of pale dusky and a series of cross-bands on posterior half of the same color. Region surrounding spinnerets and the venter (or often only the median ventral region) usually more or less yellowish. The abdomen in lighter specimens with dusky markings reduced or even absent altogether. Usually the ring around the spinnerets the darkest.

Structure.—*Male*: Carapace, from above, ovoid in outline; anterior corners rounded; clypeus convex across front; cervical constrictions shallow on margins; sides and base rounded. Median furrow a short line-like slit. Without cervical grooves. Head of normal elevation; higher than thorax; highest just back of the eyes, where it is convex; head part slightly concave in profile on posterior part. Posterior declivity rounded, gradual. Clypeus high; nearly vertical; width about equal to three diameters of anterior lateral eyes.

Eye area occupying scarcely more than one-half the width of the head. Posterior row slightly longer than the anterior. Posterior row straight; anterior row procurved. Eyes sub-equal; the anterior medians being slightly smaller than the others; the anterior laterals slightly the largest. The posterior eyes are equidistant, being a scant diameter apart. Anterior median eyes less than a radius apart, scarcely farther from the side eyes. The lateral eyes on each side contiguous; the median eyes of the two rows a little less than the diameter of an anterior median eye apart.

Chelicerae of average size; slightly reclined beyond base; sides parallel; a row of teeth along antero-lateral corner; a large tooth on the meso-anterior corner near the distal end; upper margin of the furrow with six teeth, of which the next to the farthest from the base of the fang is the largest; the lower margin has four teeth; a distinct stridulating file on the outer side of the chelicerae.

Sternum somewhat triangular-shield shaped. Widest near anterior end; acute point behind separating hind coxae; straight or slightly concave across front, corners sharp. Labium not distinctly separated from sternum; small; wider than long. Endites large, swollen; converging around labium.

Palpus of average size; trochanter with a spur-like process on ventral side; femur with stridulating pick on mesal side near base. Palpal organs as shown in the figures. Legs of ordinary size and shape; tapering; without spines or distinct modifications.

Abdomen oval, highest near base, usually widest near middle; about as high as wide. Spinnerets small, sub-apical; distinct colulus present.

Covered with setae-like hairs — sparse on carapace, smaller and easily rubbed off on abdomen.

Female: Carapace as in male. Chelicerae without latero- and meso-anterior teeth; upper margin of furrow with five teeth, the lower with four; stridulating file present. Sternum more shield-shaped and less triangular than in male. Endites and labium similar. Legs similar to male. Abdomen larger, but of similar shape. Epigynum as figured; often concealed with a large black mass of extraneous setated matter as shown in Pl. IV, ff. 30-31.

Measurements:

MALE

Length: 2.5 mm.

Cephalothorax: Length 1.23, width 1.00, head 0.60 mm.

Abdomen: Length 1.30, width 1.00 mm.

Chelicerae: Length—total 0.60, exposed 0.40 mm.

Legs:	I	II	III	IV	<i>Palpus</i>
Coxa .....	.33	.30	.26	.30	.....
Trochanter .....	.13	.12	.10	.13	.13
Femur	1.20	1.07	.86	1.16	.63
Patella .....	.30	.30	.26	.33	.20
Tibia .....	.96	.93	.73	1.07	.20
Metatarsus .....	.96	.90	.76	1.03	.....
Tarsus .....	.63	.56	.48	.60	.46
TOTAL	4.51	4.18	3.45	4.62	1.62

FEMALE

Length: 3.0 mm.

Cephalothorax: Length 1.30, width 0.93, head 0.60 mm.

Abdomen: Length 1.87, width 1.33 mm.

Chelicerae: Length—total 0.50, exposed 0.33 mm.

Legs:	I	II	III	IV	<i>Palpus</i>
Coxa .....	.30	.30	.26	.30	.....
Trochanter .....	.12	.12	.12	.12	.12
Femur	1.07	1.00	.86	1.11	.40
Patella .....	.33	.30	.26	.30	.15
Tibia .....	.93	.87	.66	1.00	.26
Metatarsus .....	.90	.80	.73	.96	.....
Tarsus .....	.56	.53	.40	.53	.46
TOTAL	4.21	3.92	3.31	4.32	1.39

Type locality.—South Fork of Raft River. Males and females.

In and under rotten logs and stumps.

Close to *E. antraea* Crosby and Bishop, but differing in epigynum and palpus.

Montilaira uta (Chamberlin)

Yost; Dove Creek; South Fork of Raft River. Many males and females.

Common under wet sticks and rocks near water.

Catabrithorax clypiellus Chamberlin

(Pl. IV, f. 32)

Clear Creek; South Fork of Raft River; Dove Creek. Males and females.

Among fallen leaves on damp ground.

Genus **EULAIRA** Chamberlin and Ivie, new

Close to *Montilaira* and *Catabrithorax*, with which this genus agrees in the general character of the male palpal organ. The elongate process of the embolic division lacks the lamellae or spines present in the species of *Montilaira*. This genus is distinguished from the other two mentioned in the narrow tibia of the male palpus which does not have its anterior rim at all produced or notched. In size the species of this genus agree with those of *Catabrithorax*, those of *Montilaira* being obviously larger.

Genotype: **Eulaira dela** Chamberlin and Ivie, new species

In addition to the two species here described, *Microneta clavata* Emerton also appears to belong to this genus.

NOTE: Crosby and Bishop combined *Catabrithorax* Chamberlin and *Montilaira* Chamberlin. However, it appears that these should remain as distinct genera. The species of *Montilaira* are larger than those of *Catabrithorax*; the posterior process and the central body of the embolic division bear spines which are lacking in *Catabrithorax*. The two are readily separated superficially by the presence of a distinct tooth or process on the face of the chelicerae of *Montilaira*, which is lacking in *Catabrithorax*.

The known species of these two genera are as follows:

MONTILAIRA:

- uta* (Chamberlin).
- perplexa* (Keyserling).
- pertinens* (Cambridge)
- ksenia* (Crosby and Bishop).
- probata* (Cambridge).

CATABRITHORAX:

- clypiellus* Chamberlin.
- oxypaederotipus* (Crosby).
- plumosus* (Emerton).

Eulaira dela Chamberlin and Ivie, new species

(Pl. IV, ff. 33-36)

Color.—Carapace, chelicerae, sternum, labium, endites, palpi, and legs dull yellowish to light brownish-orange, without markings; chelicerae often tinted with light reddish. Abdomen dark gray to pale grayish-yellow, usually light grayish. Spinnerets and epigastric plates light yellow.

Structure.—*Male*: Carapace sub-ovoid; widest near middle; rounded at base; clypeus across front only slightly convex; anterior corners rounded; cervical constriction on margin slight. Carapace moderately low; highest some distance back of eyes; posterior declivity gradual. Clypeus nearly vertical; width equal to about two and one-half diameters of an anterior median eye. Cervical grooves absent; median furrow a short line-like groove.

Eye area occupying about half the width of the head. Eyes subequal, the median anterior eyes being smaller than the others, which are about equal. Posterior row slightly longer than the anterior. Posterior row faintly procurved; anterior row slightly recurved. Posterior eyes equidistant, being a little less than a diameter apart. Anterior median eyes nearly touching, a scant diameter from the side eyes. Lateral eyes on each side contiguous; median eyes of the two rows about the diameter of a posterior median eye apart or less. Median ocular area slightly wider than long, wider behind than in front.

Chelicerae slightly reclined; contiguous at base, slightly divergent apically. Fang moderately large, sharp. Lower furrow with five small teeth; upper with two large teeth near middle of fang and a third smaller one near tip. Stridulating file on ectal side very fine; (pick on mesal side of femur of palpus very small).

Sternum fairly large; shield-shaped; slightly concave across anterior end, anterior corners sharp; widest between first and second coxae; posterior point not acuminate; narrowly separating hind coxae. Labium much wider than long; not thoroughly separated from sternum. Endites longer than wide; convergent around labium; scopulate at the tips.

Legs moderately robust; simple, without true spines or other modifications, though with several enlarged setae in the usual arrangement; e. g., as in *Anacornia microps*, new species, below.

Palpus rather small; femur, patella and tibia slender; femur of usual length; patella and tibia short. The tibia differs from the other genera of the *Erigoninae* by the absence of processes, notches or other

modifications, being simple like that of *Miconeta*. Tarsus moderately enlarged, details as shown in the figures.

Abdomen elongate oval; widest near middle, highest at base; about as high as wide. Spinnerets small; four outer ones of about the same size, middle pair much smaller. Colulus small.

All parts bearing light hairs, though these are sparse on carapace.

Female similar to male in size, shape and color; the abdomen often somewhat fuller. The epigynum as figured.

Measurements:

MALE

Length: 1.60 mm.

Cephalothorax: Length 0.86, width 0.66, head 0.39 mm.

Abdomen: Length 0.80, width 0.53 mm.

Chelicerae: 0.33 mm.

Legs:	I	II	III	IV	<i>Palpus</i>
Coxa .....	.23	.20	.19	.20	.....
Trochanter .....	.07	.07	.07	.07	.07
Femur .....	.60	.53	.48	.65	.66
Patella .....	.23	.22	.20	.20	.11
Tibia .....	.53	.46	.40	.63	.11
Metatarsus .....	.43	.40	.40	.48	.....
Tarsus .....	.36	.33	.30	.36	.26
TOTAL	2.45	2.21	2.04	2.59	.81

FEMALE

Length: 2.10 mm.

Cephalothorax: Length 1.00, width 0.73, head 0.46.

Abdomen: Length 1.13, width 0.80 mm.

Chelicerae: 0.43 mm.

Legs:	I	II	III	IV	<i>Palpus</i>
Coxa .....	.23	.20	.19	.20	.....
Trochanter .....	.07	.07	.07	.07	.07
Femur .....	.66	.64	.60	.76	.26
Patella .....	.26	.23	.20	.25	.12
Tibia .....	.59	.53	.45	.73	.16
Metatarsus .....	.45	.40	.46	.60	.....
Tarsus .....	.39	.35	.33	.40	.28
TOTAL	2.65	2.42	2.30	3.01	.89

Type locality.—Clear Creek; South Fork of Raft River. Males and females.

Common among fallen leaves.

Eulaira schediana Chamberlin and Ivie, new species

(Pl. IV, ff. 37-40)

Color and structure essentially that of *dela*, with differences in the epigynum and the palpus as shown in the figures. The size averages slightly smaller.

Measurements:

MALE

Length: 1.66 mm.

Cephalothorax: Length 0.80, width 0.56, head 0.32 mm.

Abdomen: Length 0.93, width 0.60 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.16	.14	.13	.16	.....
Trochanter .....	.07	.07	.07	.07	.07
Femur .....	.53	.43	.40	.59	.33
Patella .....	.20	.20	.20	.21	.08
Tibia .....	.46	.33	.31	.53	.08
Metatarsus .....	.33	.33	.31	.40	.....
Tarsus .....	.32	.26	.25	.32	.21
TOTAL	2.07	1.76	1.67	2.28	.78

FEMALE

Length: 1.66 mm.

Cephalothorax: Length 0.80, width 0.61, head 0.73 mm.

Abdomen: Length 0.93, width 0.73 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.19	.18	.16	.16	.....
Trochanter .....	.08	.08	.08	.08	.06
Femur .....	.57	.53	.46	.60	.21
Patella .....	.21	.21	.16	.20	.09
Tibia .....	.48	.43	.36	.60	.13
Metatarsus .....	.40	.39	.35	.46	.....
Tarsus .....	.32	.28	.26	.33	.34
TOTAL	2.25	2.10	1.85	2.43	.83

Locality.—Dove Creek. Several males and females.

Sifted from fallen leaves.

Common in the high mountains throughout the state.

Cochlembolus sanctus Crosby

Clear Creek. One male.

Found in sifting leaves.

This specimen does not wholly conform with Crosby's figures of *sanctus*, but agrees perfectly with other specimens from the type locality of that species, hence it is placed here.

Spirembolus monticolens (Chamberlin)

(Pl. VI, ff. 53-54)

South Fork of Raft River; Grouse Creek; Dove Creek. Males and females.

Sifted from leaves.

Spirembolus mundus Chamberlin and Ivic, new species

(Pl. V, ff. 41-43; pl. VI, ff. 50-52)

Color.—Carapace chelicerae, and endites brown, the carapace with indistinct dusky markings. Labium and sternum dark dusky-brown. Legs and palpi bright golden yellow, the male palpus somewhat darker. Entire abdomen black.

Structure.—*Male*: Carapace ovoid in outline, widest back of middle, clypeus rounded across front; without cervical constriction on margin. Head highly, somewhat conically, elevated; anterior median eyes projecting slightly forward; profile of head rounded behind; thoracic part much lower, of normal elevation. Clypeus very high; inclined forward. Median furrow a short line-like groove. Cervical grooves absent.

Eyes small, subequal; on top of cephalic elevation. Eye area occupying full width of cephalic elevation—about one-half the width of the carapace at that place. Posterior row straight; anterior row strongly procurved. Posterior row very slightly longer than the anterior. Posterior eyes equidistant, about one and one-third diameters apart. Anterior median eyes nearly touching, about one and one-half diameters from the side eyes. Lateral eyes on each side contiguous; the median eyes of the two rows about a diameter apart. Median ocular area wider than long; wider behind than in front.

Chelicerae moderately small; slightly reclined; with four teeth on the upper margin and several small ones on the lower; a fine stridulating file on the ectal side. Endites of average size; convergent around labium but not touching at tips. Labium wider than long; reaches about half way to the tips of the endites; not separated from sternum by a distinct suture.

Sternum somewhat heart-shaped in general outline; anterior corners somewhat angular; margins with short points between each two coxae.

Palpus large, of the typical *Spirembolus* form, (see figures); with a fine stridulating pick on mesal side of femur at base. Legs of moderate size, gradually tapering distally; without modifications, except a small spur at distal end of coxa IV on posterior side; without true spines, but with the usual arrangement of large setae (e. g., see *Anacornia microps*).

Abdomen of the usual ovoid shape, widest near middle, highest near base, about as high as wide. Spinnerets small, sub-apical.

Clothed with short hairs, except carapace which is glabrous; much finer on abdomen.

Female: Size and color similar to male; structure similar, except for carapace, palpus, etc. The stridulating organs and spurs on hind coxa absent. Palpus small, of usual form. Head elevation lacking. Clypeus less convex across front; cervical constriction more distinct on margins, yet still shallow. Width of clypeus about three and one-half times the diameter of the anterior median eyes.

Eye area occupying a little more than half the width of the head. About equal in size. Both rows straight. Posterior eyes equidistant, about one and one-third diameters apart. Anterior median eyes nearly a radius apart, slightly more than a diameter from side eyes. Median ocular area slightly wider than long; slightly wider behind than in front.

Median piece of the epigynum broadly alate behind; often white in color, but may be dark.

Measurements:

MALE

Length: 2.46 mm.

Cephalothorax: Length 1.13, width 0.86, head 0.53 mm.

Abdomen: Length 1.40, width 1.00 mm.

Chelicerae: 0.40.

Legs:	I	II	III	IV	Palpus
Coxa .....	.26	.25	.22	.25	.....
Trochanter .....	.13	.13	.12	.13	.13
Femur .....	.95	.93	.86	1.13	.86
Patella .....	.26	.26	.26	.26	.40
Tibia .....	.86	.80	.66	1.00	.13
Metatarsus .....	.82	.77	.66	.93	.....
Tarsus .....	.53	.50	.46	.50	.40
TOTAL	3.81	3.64	3.24	4.20	1.92

FEMALE

Length: 2.60 mm.

Cephalothorax: Length 1.20, width 0.90, head 0.60 mm.

Abdomen: Length 1.46, width 1.00 mm.

Chelicerae: 0.43.

Legs:	I	II	III	IV	Palpus
Coxa .....	.27	.26	.23	.26	.....
Trochanter .....	.12	.12	.13	.13	.10
Femur .....	.96	.93	.83	1.10	.36
Patella .....	.26	.26	.27	.30	.15
Tibia .....	.86	.75	.63	.96	.25
Metatarsus .....	.73	.66	.63	.85	.....
Tarsus .....	.50	.47	.42	.48	.36
TOTAL	3.70	3.45	3.14	4.08	1.22

Type locality.—Clear Creek. Several males and females.
Among fallen leaves.

Other localities.—Also common in the Wasatch Mts. of Utah.

Spirembolus chera Chamberlin and Ivie, new species

(Pl. IX, f. 87)

Female: Carapace dusky over yellow, almost black, the black along margins solid. Sternum black or nearly so. Legs yellow. Abdomen black, without markings.

Cephalothorax anteriorly obviously lower than in *monticolens*, more as in *vallicolens*, with the clypeus slanting forward. Head highest posteriorly, where rounded, slanting to region of eyes.

Abdomen more narrowed at posterior end than usual.

Epigynum of typical structure but obviously different in proportions and details of form from those of other species of which the females are known. See figure.

Measurements:

FEMALE

Total length: 2 mm.

Cephalothorax: Length .87, width .61 mm.

Legs:	I	II	III	IV
Coxa-Trochanter .....	.29	.26	.26	.29
Femur .....	.72	.63	.61	.76
Tibia-Patella .....	.80	.72	.61	.98
Metatarsus .....	.54	.49	.49	.60
Tarsus .....	.38	.34	.32	.40
TOTAL	2.73	2.44	2.29	2.95

Locality.—South Fork of Raft River. Two females.

Genus DISEMBOLUS Chamberlin and Ivie, new

Related to *Spirembolus*, with which it agrees: in having the head of the male elevated; in having the tibia of the palpus prolonged dorsally into a long apophysis, and in having the embolus long and coiled. It differs from *Spirembolus* principally in features of the male palpus: the tibial apophysis is much broader and bears a stout spine at the base; the cymbium is not conically elevated dorsally; the embolus is not in a single distally enlarging spiral as in *Spirembolus*, but is tortuously coiled, and is prolonged caudally into a stout tail piece somewhat similar to that of *Ceratinella*, *Grammonota*, etc.

Genotype: ***Disembolus stridulans*** Chamberlin and Ivie, new species

Disembolus stridulans Chamberlin and Ivie, new species

(Pl. V, ff. 44-46; pl. VI, ff. 55-57)

Color.—Carapace dusky-brown, with head slightly paler, except in eye region; a dark patch on back of head. Sternum and labium dark dusky-brown; chelicerae and endites light brown, the chelicerae dark on the ectal sides. Legs and palpi pale brownish-yellow; the palpal organs dark. Abdomen entirely black, except the epigastric plates which are orange-brown.

Structure.—Carapace oval, width nearly three-fourths of length; without cervical constrictions on the margins. Head high, elevated above thorax; vertical for a ways behind then sloping gradually to the highest point at posterior eyes. Front eyes projecting over clypeus; clypeus high, width being over three times the diameter of the anterior lateral eyes. Median furrow of the thorax a shallow line-like groove.

Eye area occupying the full width of the cephalic elevation; posterior row longer than the anterior. Size unequal, the order of size being: anterior lateral, posterior lateral, posterior median, anterior median. Posterior row recurved; anterior row procurved. Posterior median eyes about one and one-fourth diameters apart and about half as far from the lateral eyes. Anterior median eyes less than a radius apart, about a radius from the lateral eyes. Lateral eyes on each side nearly contiguous; the median eyes of the two rows a little more than the diameter of an anterior median eye apart. Median ocular area wider behind than in front, and wider than long.

Chelicerae small, slightly reclined; with distinct stridulating file on lower part of ectal side; furrow with three large teeth and a smaller mesal, one on upper margin, and two small teeth on lower margin.

Sternum large, broadly shield-shaped, as wide as long; widest at second coxa, sides rounded; obtusely pointed behind, separating hind coxae.

Legs of moderate size, gradually tapering distally; without modifications or true spines, but with the usual arrangements of large setae (e. g., see *Anacornia microps*). Relative lengths IV, I, II, III.

Abdomen of the usual ovoid shape, widest near middle, highest near base, about as high as wide. Spinnerets small, sub-apical.

Measurements:

MALE

Length: 1.4 mm.

Cephalothorax: Length 0.66, width 0.48, head 0.33 mm.

Abdomen: Length 0.80, width 0.55 mm.

Legs:	I	II	III	IV
Coxa .....	.15	.13	.12	.13
Trochanter .....	.07	.07	.07	.07
Femur .....	.55	.50	.43	.65
Patella .....	.18	.15	.14	.17
Tibia .....	.46	.43	.33	.60
Metatarsus .....	.40	.37	.33	.46
Tarsus .....	.31	.29	.28	.28
TOTAL	2.12	1.94	1.70	2.36

Type locality.—South Fork of Raft River. One male.

Other localities.—Also known from the Wasatch and Henry Mts. of Utah.

Pocadicnemis longitubus (Emerton)

South Fork of Raft River; Dove Creek. Male and females.

Among fallen leaves.

Oedothorax orites (Chamberlin)

(Pl. V, f. 48)

Grammonota orites Chamberlin, Ann. Ent. Soc. Amer., 1919, XII, p. 249, pl. xvii, ff. 7-9.*Oedothorax pidacitis* Crosby and Bishop, Journ. N. Y. Ent. Soc., XXXV, p. 151, pl. xvi, ff. 17-18.

Clear Creek; South Fork of Raft River. Males and females.

Common under damp leaves and sticks.

This species is close to *Oedothorax montanus* (Emerton), but is evidently a distinct species. *Oedothorax nesides* Chamberlin, is close if not identical.*Oedothorax* sp. A.

(Pl. IX, f. 89)

Dove Creek. Females.

Sifted from leaves.

It is not possible to identify the species of these specimens with certainty since many species of *Oedothorax* are known from the males only.

Genus *TUNAGYNA* Chamberlin and Ivie, new

Apparently allied to *Oedothorax* in general features but differing in the structural details of palpal organ and epigynum. The latter is characterized by being conspicuously prolonged caudad in a median finger-like process. In the male of the genotype the palpus has the tibia small and without processes. The long, slender embolus arises at the base of the bulb and curves about the mesal edge to distal end in a semi-circle; the principal apophysis arises near base on mesal side and extends distad as a long free and conspicuous process; near middle of mesal side of bulb an uncate process. Chelicerae with upper margin bearing four or five conspicuous teeth, the lower margin with 3-6 closely arranged teeth. Cephalothorax normal in both sexes.

Genotype: *Tmeticus debilis* Banks

In addition to *Tunagyna debilis*, the new species indicated below appears to belong to this genus.

Tunagyna tuoba Chamberlin and Ivie, new species

(Pl. IX, ff. 90-92)

Carapace dusky, nearly black, a more deeply colored shield mark on posterior portion of head, the borders of carapace also darker. Sternum black. Legs dusky yellow. Abdomen black.

Upper margin of furrow of chelicera with four teeth of which the proximal one is removed from the others instead of the five equidistant teeth present in *debilis*; the lower margin with three teeth as large as those of the upper margin instead of five or six teeth much smaller than the upper ones.

Distinguished in the female especially by the form of the epigynum in which the median finger is decidedly shorter than in *debilis* as shown in the figures.

Measurements:

FEMALE

Total length: 1.8 mm.

Cephalothorax: Length .87, width .72 mm.

Legs:	I	II	III	IV
Coxa-Trochanter .....	.27	.24	.20	.27
Femur				
Tibia-Patella .....	.64	.54	.45	.70
Metatarsus .....	.36	.32	.32	.42
Tarsus .....	.32	.30	.29	.32
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	1.59	1.40	1.06	1.71

Locality.—South Fork of Raft River. One female.

Spiropalpus spiralis Emerton

(Pl. V, f. 49)

South Fork of Raft River. One female.

Known from various parts of the state.

Cornicularia communis Emerton

Dove Creek. Male and female.

Sifted from fallen leaves.

Cornicularia thrinax Chamberlin and Ivie, new species

(Pl. VI, f. 62; pl. VII, ff. 69-74)

Color.—Carapace light to medium brown, head region somewhat dusky; chelicerae of similar color. Sternum and labium dark brown; endites light brown with pale tips. Legs and palpi light yellowish, tinted with reddish brown in darker specimens. Male palpal organs dark brownish. Abdomen dark gray, slightly paler below. Spinnerets light yellowish; epigynum dark reddish-brown.

Structure.—*Male*: Carapace ovoid, widest near middle of thoracic part; scarcely any cervical constriction on margin; clypeus rounded across front; median depression a short furrow; cervical grooves lacking. Cephalothorax of average height. Clypeus vertical. Cephalic horn vertical, single, clavate; appearing broadly forked apically, when viewed from in front; situated in median ocular area at front of head. Head, in profile, depressed just back of horn, then slightly elevated caudad to its highest point (except for the horn). Width of the clypeus about twice the diameter of the anterior median eyes.

Ocular area occupying two-thirds the width of the head. Eye rows of about equal length. The posterior row procurved; the anterior row recurved. Eyes sub-equal in size. The anterior median eyes less than a radius apart, and a scant diameter from the lateral eyes. The posterior median eyes about one and one-half diameters apart, and a scant diameter from the lateral eyes. Lateral eyes on each side contiguous. The median eyes of the two rows more than two diameters apart. Median ocular area much longer than wide; wider behind than in front.

Chelicerae slightly reclined; simple; contiguous along mesal side; fang short and sharp. Furrow with two teeth on the lower margin near the base of the fang; six teeth on the upper margin, three close together near base of fang, then two larger ones more widely separated, then after a wider interval another small one. A stridulating file on the outer face (the pick is on the mesal side of the femur near the base).

Sternum shield-shaped; straight across anterior end, anterior corners square; widest between second and third coxae obtusely pointed behind, widely separating hind coxae. Labium small, much wider than long; less than half the length of the endites. Endites strongly convergent around labium.

Legs tapering; without spines or special modifications; relative lengths IV, I, II, III. Palpus of average size; femur and patella very slender; tibia and tarsus much enlarged. Abdomen ovoid; somewhat flattened above; highest near base; wider than high. Spinnerets small, sub-apical.

Female: Essentially similar to male. Cephalic horn lacking; clypeus more slanting; eyes closer together than in male. Anterior row slightly recurved; the posterior row straight. Anterior median eyes nearly touching; less than a radius from the laterals. Median eyes of the two rows slightly more than a diameter apart. Lateral eyes on each side touching. Median ocular longer than wide; wider behind than in front.

Chelicerae as in male. Sternum with sides more rounded; labium larger; endites less convergent. Epigynum as figured. Tarsus of palpus pointed at the tip.

Measurements:

MALE

Length: 2 mm.

Cephalothorax: Length 0.90, width 0.65, head 0.37 mm.

Abdomen: Length 1.13, width 0.93 mm.

Chelicerae: 0.28 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.20	.15	.13	.15	.....
Trochanter .....	.10	.09	.09	.09	.11
Femur .....	.66	.56	.51	.70	.33
Patella .....	.20	.20	.17	.20	.10
Tibia .....	.53	.50	.40	.60	.13
Metatarsus .....	.42	.40	.30	.50	.....
Tarsus .....	.33	.33	.33	.33	.30
TOTAL	2.44	2.23	1.93	2.57	.97

FEMALE

Length: 2.2 mm.

Cephalothorax: Length 0.93, width, 0.68, head 0.40 mm.

Abdomen: Length 1.40, width 0.93 mm.

Chelicerae: 0.30 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.22	.21	.18	.22	.....
Trochanter .....	.13	.13	.10	.13	.13
Femur .....	.60	.58	.50	.66	.28
Patella .....	.23	.23	.21	.21	.09
Tibia .....	.53	.46	.40	.66	.18
Metatarsus .....	.42	.42	.40	.56	.....
Tarsus .....	.33	.33	.30	.40	.22
TOTAL	2.46	2.36	2.09	2.84	.90

Locality.—Dove Creek. Male and females.
Sifted from fallen leaves.

Ceratinella acerea Chamberlin and Ivie, new species

(Pl. V, f. 47)

This species is close to *Ceratinella brunnea* Emerton, from which it is readily distinguishable in the absence of a dorsal sclerite on the abdomen. The fang of the chelicera has the double curve characteristic of *Ceratinella*.

Type locality.—South Fork of Raft River. One female.

Other locality.—Also known from females from the Wasatch Mts. of Utah.

Ceratinella placida Banks

Clear Creek; Dove Creek. Males and females.
Among fallen leaves.

Pelecopsis sculptum (Emerton)

Clear Creek. Males and females.

In grass at the bases of sagebrush near stream and among fallen leaves.

Also common in the Uintah Mts. of Utah.

Ceratinopsis sp.

(Pl. IX, f. 88)

Clear Creek. One female.

Probably this genus, but species not to be determined definitely from the female.

Genus NANAVIA Chamberlin and Ivie, new

Cephalothorax broad and relatively low. Resembling *Tmeticus* in the general character of the eyes. Posterior row of eyes procurved, the medians nearer to each other than to the laterals; eyes subequal. Anterior row of eyes straight or slightly recurved; the medians much smaller than the laterals, close to each other but separated by about their diameter from the laterals. Clypeus a little lower than the length of the eye area. Endites strongly inclined; with four or five teeth on upper margin of furrow and with three to five on the lower margin. Legs with the anterior metatarsi shorter than the tibia; without spines; the tibiae each bearing two long setae above, the patellae (including that of palpus) each with one; claws small. Palpi of males slender with the tibia elongate, much exceeding the tarsus in length; the tarsus with bulb relatively simple and its processes short. Epigynum simple.

Genotype: **Nanavia monticola** Chamberlin and Ivie, new species

This genus also apparently includes *Tmeticus tenuipalpis* of Emerton, described from Ipswich, Massachusetts.

Nanavia monticola Chamberlin and Ivie, new species

(Pl. VIII, ff. 75-82)

Color.—Carapace dull light brown, with radiating lines on thorax of light dusky; a dark median line extending through median furrow and for a short way beyond in each direction, more distinct in the male than in the female; eye area slightly dusky. Chelicerae light reddish-brown. Endites light dusky brown with whitish tips. Sternum and labium dusky over light brown, the labium with a whitish tip.

Legs and palpi light yellowish-brown, with an indistinct pale dusky ring at each joint. Abdomen dark gray with pale gray markings, these consisting of: two pairs of large blurred sub-median spots on the basal third, followed posteriorly by five narrow transverse chevrons, of which the next to the apical one is much wider and whiter than the others. Venter dark gray with epigastric plates and spinnerets pale reddish-brown.

Structure.—*Male*: Carapace sub-ovoid, widest at middle of thoracic part; only slightly indented on margins at junction of head and thorax. Clypeus convex in outline from dorsal view; corners rounded. Carapace moderately convex; head only slightly elevated, highest midway between eyes and median furrow. Width of clypeus about two and one-half times the diameter of an anterior median eye. Median furrow a short longitudinal groove. Eye area a little more than half the width of the head.

Posterior eye row slightly longer than anterior row. Posterior row slightly procurved; anterior row slightly recurved. The anterior median eyes are much smaller than the other eyes, which are about equal. Anterior median eyes scarcely more than a radius apart, about a diameter from the side eyes. Posterior median eyes scarcely more than a radius apart, a scant diameter from the side eyes. Lateral eyes nearly contiguous; the median eyes of the two rows about the diameter of a posterior median eye apart. Median ocular area longer than wide, much wider behind than in front.

Chelicerae moderately stout; vertical; slightly convex in front; rounded; somewhat divergent laterally. Furrow long, with four large teeth on upper margin, followed proximad at a short distance by another stout, though smaller, tooth. Lower margin with a stout tooth near base of fang, followed proximad by three small teeth.

Sternum broadly shield-shaped, nearly as wide as long; sides sub-parallel for the anterior half, rounded posteriorly; with a short sharp

process between each two coxae; a narrow posterior process slightly separating hind coxae. Anterior corners sharp; straight across anterior end. Labium wider than long, rounded apically. Basal three-fifths concave with sides notched; not sharply separated from sternum. Endites stout, more than twice as long as labium; width about equal; length more than one and one-half the width; slightly convergent.

Legs moderately long and robust; IV, I, II, III; without distinct spines; of typical shape. Paired claws with seven or more teeth on under side, the distal one the largest, the others gradually getting smaller proximad, becoming mere serrations nearest base; middle claw with a single tooth below. Palpus slender, the tarsus proportionately very small, the cymbium with two long spines on mesal side near tip. Details as shown in the figures.

Abdomen elongate oval, nearly twice as long as wide; about as high as wide; highest and widest near middle, tapering toward both ends. Spinnerets rather small, sub-apical. Front and hind spinnerets about equal, each with a short apical segment; middle pair much shorter and slenderer. A distinct colulus present.

Female: Similar to male, except: Size larger. Head stouter; posterior row of eyes less procurved, but still faintly so. Chelicerae somewhat stouter and more convex in front at base; lower margin of the furrow with two small teeth instead of three as in male and with a large stout tooth near base of fang replaced by two minute denticles. Epigynum simple with two openings on posterior margin and two dark areas showing through integument.

Measurements:

MALE

Length: 2.5 mm.

Cephalothorax: Length 1.26, width 1.10, head 0.66 mm.

Abdomen: Length 1.33, width 0.80 mm.

Chelicerae 0.65 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.37	.30	.23	.30	.....
Trochanter .....	.15	.12	.10	.13	.13
Femur	1.13	1.00	.86	1.20	.56
Patella .....	.37	.37	.30	.33	.24
Tibia	1.03	.86	.73	1.07	.37
Metatarsus .....	.93	.86	.73	1.07	.....
Tarsus .....	.60	.60	.53	.56	.26
TOTAL	4.58	4.11	3.63	4.66	1.56

FEMALE

Length: 3.25 mm.

Cephalothorax: Length 1.66, width 1.26, head 0.81 mm.

Abdomen: Length 1.87, width 1.20 mm.

Chelicerae: 0.78 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.50	.43	.37	.43	.....
Trochanter .....	.20	.20	.20	.20	.23
Femur	1.40	1.26	1.07	1.46	.56
Patella .....	.40	.40	.46	.46	.20
Tibia	1.26	1.03	.90	1.40	.46
Metatarsus	1.23	1.07	.96	1.33	.....
Tarsus .....	.70	.60	.53	.73	.46
TOTAL	5.69	4.99	4.49	6.01	1.91

Type locality.—Clear Creek. Male and female.

Genus ANACORNIA Chamberlin and Ivie, new

Agreeing in general structure with *Cornicularia* but differing in having the eyes conspicuously smaller. The posterior eye row a little recurved; anterior median eyes close together, the posterior median eyes widely separated. Clypeus high. The head with a short blunt process, densely clothed with short hairs. Apophysis of tibia of male palpus reduced in size.

Genotype: **Anacornia microps** Chamberlin and Ivie, new species

Anacornia microps Chamberlin and Ivie, new species

(Pl. VI, ff. 58-60; pl. VII, ff. 65-68)

Color.—Carapace, chelicerae, labium, endites and palpi medium to light orange-brown; the chelicerae tinged with reddish. Sternum and legs brownish-yellow. Abdomen pale yellowish-white with a small white spot above the spinnerets.

Structure.—*Male*: Carapace about two-thirds as wide as long, widest near middle of thorax; base shallowly emarginate, sides rounded; head narrowed; clypeus convex across front; scarcely any cervical constriction. Head somewhat elevated; projecting over clypeus in a short blunt process, which is but slightly elevated above the general height of the head; this process and adjoining eye area thickly covered with short stout hairs. Clypeus reclined, width about seven times diameter of the small anterior median eyes. Thoracic part moderately elevated, broadly sloping behind. Median furrow a short line-like groove. Cervical groove absent.

Eyes small; eye area occupying most of the width of the head. Posterior row slightly longer than the anterior; both rows strongly re-curved. All eyes small; lateral eyes larger than the median eyes; median eyes of the two rows about equal and the lateral eyes of the two rows about equal. Posterior median eyes about four diameters apart and two and one-half diameters from the lateral eyes. Anterior median eyes scarcely a radius apart; about three and one-half diameters from the lateral eyes. Lateral eyes on each side contiguous; median eyes of the two rows over three diameters apart. Median ocular area slightly wider behind than long; nearly three times as wide behind as in front.

Chelicerae slightly reclined; sides in general outline as seen from in front nearly parallel; surfaces regular, convex. Upper margin of furrow with five large teeth of which the next to the proximal one is the largest, from which they become progressively smaller distad; lower margin with five teeth, the smallest near base of fang, becoming larger mesally.

Endites stout at base; rather slender and pointed apically; convergent around labium; small scopula on tips. Labium small, nearly twice as wide as long; much less than half the length of the endites; not entirely separate from sternum. Sternum rather large; broadly shield-shaped; nearly as wide as long; widest near anterior end; sides undulately rounded; pointed behind, narrowly separating hind coxae; anterior corners square; straight across anterior end.

Palpus rather stout, structures as shown in figures. Legs moderate; IV, I, II, III; gradually tapering; without spines, but with several enlarged setae, arranged as follows: one on top of each patella near distal end; two on mid dorsal line of each tibia; one on each ventral side of each femur near distal end; each of these femoral setae accompanied by one or more smaller setae.

Abdomen small, oblong, nearly twice as long as wide; slightly wider than high; widest near middle, highest at base; somewhat pointed behind; overlapping cephalothorax for less than one-fifth its length. Spinnerets small, subapical; the anterior pair largest, narrowly separated; distinct colulus present.

Except for head region the carapace is glabrous; the remainder of the spider covered with short coarse hairs.

Female similar to male in most respects. Cephalic process absent.

Measurements:

MALE

Length: 2 mm.

Cephalothorax: Length 1.1, width 0.8, head 0.4 mm.

Abdomen: Length 1.0, width 0.55 mm

Legs:	I	II	III	IV	Palpus
Coxa .....	.27	.25	.22	.23	.....
Trochanter .....	.11	.11	.11	.11	.15
Femur .....	.93	.83	.73	.96	.43
Patella .....	.33	.27	.23	.27	.15
Tibia .....	.80	.73	.60	.86	.15
Metatarsus .....	.66	.63	.60	.80	.....
Tarsus .....	.47	.47	.44	.47	.33
TOTAL	3.57	3.29	2.93	3.70	1.21

Type locality.—Clear Creek. Males and females.

Other localities.—South Fork of Raft River. Also known from the Uintah Mts., Utah.

Linyphia litigiosa Keyserling

Clear Creek. Females.

In webs in bushes near creek.

Linyphia marginata C. Koch

Clear Creek. Immature.

In webs under rock cliff.

Linyphia hespera Chamberlin

Clear Creek; South Fork of Raft River. Males and immature.

Under bark of dead willows and in webs.

Linyphia orinoma Chamberlin

(Pl. VIII, ff. 85-86)

This species was described from a light colored female. It is close to *L. insignis* Blackwall, and in normally colored individuals is colored much like that species.

Clear Creek; Yost; South Fork of Raft River. Males and females.

Among fallen leaves, in grass, etc.

Linyphia ephedra Chamberlin and Ivie, new species

(Pl. VIII, ff. 83-84)

Carapace yellowish, a little dusky on the sides, the margins black. Sternum yellowish, a little dusky, with a black border. Abdomen yellow above with a median basal pale mark, pointed behind and sending off from its sides pale lines which run obliquely caudo-ectad; on the pos-

terior declivity a small black spot followed by a single, partially broken black chevron and then a wider transverse black band which extends below and joins a black ventral area which extends to middle and embraces two pairs of small pale dots; on venter also a black area in front of epigynum; sides of abdomen below with a network of black lines.

Characterized especially by the structure of the epigynum as shown in the figures.

Length, 3 mm.

The joints of all legs distad of the patella are missing from the type.

Locality.—East of Yost. One female.

Lepthyphantes nebulosus (Sundevall)

Lynn. Immature.

In old farm buildings.

Lepthyphantes lamprus Chamberlin

Clear Creek; South Fork of Raft River. Females and immature. Under logs, etc., in damp places.

Lepthyphantes furcillifer Chamberlin and Ivic, new species

(Pl. X, ff. 109-112)

Color.—Carapace light brownish-yellow, a median black line thru the median groove; margins of thoracic part dusky; eyes on black spots. Chelicerae light orange-brown. Endites light yellowish with ectal sides and base more or less dusky, tips and mesal side whitish. Labium and sternum dusky. Legs and palpi light yellowish-brown, with joints slightly dusky. Abdomen pale gray above with two rows of black spots extending the full length, and which are more or less connected by pale dusky bands to a narrow broken median line of pale dusky. Sides black, with a row of elongate and more or less confluent white spots along each ventral side and extending dorsad posteriorly to meet the light area of the dorsum. Venter dusky brown. Epigynum and spinnerets light reddish-brown. Epigastric plates light yellowish.

Structure.—*Male*: Carapace ovoid in outline, wide behind, narrow at the head; clypeus rounded across front; cervical constriction scarcely apparent on the margins. Carapace moderately low, head not elevated; front eyes projecting over clypeus. Clypeus somewhat protruding, width about three diameters of the anterior median eyes.

Eye area about three-fourths the width of the head. Eyes slightly unequal in size, the order being (from largest to smallest): anterior lateral, posterior median, posterior lateral, anterior median. Posterior row scarcely longer than the anterior. Both rows slightly recurved. Posterior median eyes about two-thirds of a diameter apart, closer to the lateral eyes. Anterior median eyes nearly touching, about two-thirds of a diameter from the lateral eyes. Lateral eyes on each side touching; median eyes of the two rows nearly a diameter of a posterior median eye apart. Median ocular quadrangle about as long as wide, much wider behind than in front.

Chelicerae slightly reclined; rather long; sides sub-parallel; contiguous mesally, except at tips; claw simple, of average size; usual stridulating file on ectal side. Furrow with one small tooth on lower margin, and two on the upper, of which the more distal one is much larger than the other.

Sternum broad, sub-cordate, as wide as long; concave across front; anterior corners obtuse; widest between first and second coxae; margins with small sharp points between coxae; a broad truncate tip extends between hind coxae, widely separating them. Labium small, wider than long, less than half the length of the endites. Endites thick, rounded, only a little longer than wide; slightly convergent. Palpus of average size, structure as shown in figures.

Legs rather long and slender, especially beyond the femora; tapering; without special modifications. Spines arranged thus: Femur I—one anterior lateral spine and one or two small ventral spines on each side at distal end; femora II, III, and IV lacking the large spine, but the small ones usually present. Patellae—spines 1-1 above, the basal one being very small. Tibiae—two long spines on dorsal mid-line, and also one or two spines on each side. Metatarsi—one spine above.

Abdomen elongate oval, widest near middle; highest toward base; about as high as wide. Spinnerets sub-apical; of average size; anterior pair largest, with a small apical segment; hind pair slightly smaller, with a larger apical segment; median pair small. Colulus distinct.

Covered with a moderate growth of short, coarse hairs, except on carapace, which is nearly glabrous. A row of bristles along the mid-line of pars cephalica.

Female: Similar to male, except abdomen slightly larger, bristles on head lacking; endites smaller, less thick. Palpus rather small. Epigynum as figured.

Measurements:

MALE

Length: 2.5 mm.

Cephalothorax: Length 1.20, width 1.00, head 0.53 mm.

Abdomen: Length 1.46, width 0.86 mm.

Chelicerae 0.50 mm.

Legs:	I	II	III	IV	<i>Palpus</i>
Coxa .....	.35	.33	.26	.30	.....
Trochanter .....	.10	.10	.10	.10	.10
Femur	1.73	1.55	1.26	1.66	.50
Patella .....	.33	.33	.30	.32	.16
Tibia	1.73	1.46	1.03	1.53	.18
Metatarsus	1.63	1.46	1.17	1.60	.....
Tarsus	1.10	1.00	.70	.93	.43
TOTAL	6.97	6.23	4.82	6.44	1.37

FEMALE

Length: 2.33 mm.

Cephalothorax: Length 1.00, width 0.95, head 0.53 mm.

Abdomen: Length 1.53, width 1.13 mm.

Chelicerae: 0.50 mm.

Legs:	I	II	III	IV	<i>Palpus</i>
Coxa .....	.33	.30	.26	.30	.....
Trochanter .....	.10	.10	.10	.10	.10
Femur	1.46	1.33	1.13	1.46	.40
Patella .....	.33	.33	.30	.33	.13
Tibia	1.40	1.20	1.00	1.26	.23
Metatarsus	1.33	1.20	.96	1.26	.....
Tarsus .....	.86	.80	.60	.86	.50
TOTAL	5.81	5.26	4.35	5.57	1.36

Locality.—Clear Creek; South Fork of Raft River. Males and females.

***Bathyphantes latescens* (Chamberlin)**

(Pl. XII, ff. 119-120)

Linyphia latescens Chamberlin, Ann. Ent. Soc. Amer., 1919, XII, p. 248, pl. xvii, f. 3.

Clear Creek; South Fork of Raft River; Grouse Creek. Males and females.

In wet grass and under wet stones near water.

Close to *B. nigrina* (Westring).

Microneta viaria* (Blackwall)Grammonota obesior* Chamberlin, Ann. Ent. Soc. Amer., 1919, XII, p. 250, pl. xvii, f. 6.

Clear Creek; Dove Creek. Males and females.

Among fallen leaves.

Microneta cornupalpis (Cambridge)

Clear Creek. Male and females.

Microneta orines Chamberlin and Ivie, new species

(Pl. X, ff. 107-108)

Close to *viaria*, from which it differs chiefly in the epigynum, which protrudes farther than in *viaria*, but which is somewhat similar in structure.

Type locality.—Clear Creek; South Fork of Raft River. Females.

Microneta lophophor Chamberlin and Ivie, new species

(Pl. X, ff. 103-106)

A black species, evidently close to *fratrella*, but specifically distinct. Distinguished by the form of the epigynum.

Type locality.—South Fork of Raft River. Female.

Microneta fratrella (Chamberlin)

(Pl. VI, f. 61; pl. IX, ff. 93-95; pl. X, ff. 101-102)

Grammonota fratrella Chamberlin, Ann. Ent. Soc. Amer., 1919, XII, p. 250, pl. xviii, f. 3.

Clear Creek. Several females and males.

Sifted from fallen leaves.

Microneta anopla Chamberlin and Ivie, new species

(Pl. IX, ff. 96-98)

Color.—Carapace and sternum dark brownish-black; chelicerae, endites and labium dark at the bases, lighter brown at the tips. Legs and palpi orange-brown. Abdomen entirely black.

Structure.—*Male*: Carapace ovoid; clypeus rounded across front, slightly emarginate behind; widest about one-third from base; moderately elevated; highest at anterior end of median furrow; undulating toward head; eye area slightly raised, anterior eyes projecting over clypeus. Width of clypeus twice diameter of anterior median eyes.

Eye rows of about equal length; both rows straight. Eyes fairly large; anterior medians smallest, others about equal. Eye area occupying over two-thirds the width of the head. Anterior median eyes less than a radius apart, about the same distance from the side eyes. Posterior eyes equidistant, about three-fourths of a diameter apart. Lateral eyes of each side contiguous. Median eyes of the two rows one and one-half diameters of a posterior eye apart. Median ocular area slightly wider behind than in front; longer than wide.

Chelicerae short, simple, slightly diverging. Furrow with two small teeth on lower margin; four large teeth above and a smaller tooth toward tip of fang; a stridulating file on ectal face.

Labium wider than long; about one-half as long as endites. Endites about twice as wide as long, converging around labium. Sternum large, somewhat heart-shaped; longer than wide; nearly straight across front; widest near front; blunt rounded point behind separating hind coxae.

Legs moderately large, front and hind legs about equal; without spines, but with stout setae arranged as follows: one or two on each ventral side of each femur near tip; one on tip of each patella above; two along dorsal midline of each tibia. Palpus of average size; details as figured.

Abdomen oval; widest near middle, narrowing toward each end; highest toward base, gently rounded posteriorly; slightly wider than high. Spinnerets subapical, the four outer spinnerets fairly large, the middle pair much smaller; colulus present.

Measurements:

MALE

Length: 1.40 mm.

Cephalothorax: Length 0.65, width 0.48, head 0.26 mm.

Abdomen: Length 0.86, width 0.60 mm.

Chelicerae: 0.21 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.15	.14	.13	.15	.....
Trochanter .....	.08	.08	.08	.08	.06
Femur .....	.61	.60	.46	.66	.20
Patella .....	.18	.16	.15	.16	.07
Tibia .....	.54	.48	.37	.60	.10
Metatarsus .....	.50	.46	.40	.53	.....
Tarsus .....	.42	.37	.31	.40	.20
TOTAL	2.48	2.29	1.90	2.58	.63

FEMALE

Length: 1.53 mm.

Cephalothorax: Length 0.66, width 0.50, head 0.26 mm.

Abdomen: Length 0.93, width 0.66 mm.

Chelicerae: 0.20 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.15	.14	.13	.16	.....
Trochanter .....	.08	.08	.08	.08	.08
Femur .....	.63	.60	.46	.66	.16
Patella .....	.18	.16	.15	.15	.07
Tibia .....	.55	.50	.40	.56	.13
Metatarsus .....	.53	.46	.40	.50	.....
Tarsus .....	.40	.37	.30	.36	.20
TOTAL	2.52	2.31	1.92	2.47	.64

Type locality.—Clear Creek. Many males and females.

Other localities. South Fork of Raft River; Grouse Creek; Dove Creek.

Sifted from leaves and moss.

Microneta tumoa Chamberlin and Ivie, new species

(Pl. IX, f. 100)

Close to *anopla*, being slightly larger, easily distinguished in that this species has the sides of the femora blackened, especially on the first and second legs, less so on the fourth. Tibia I also slightly darkened. Epigynum similar to *anopla*.

Clear Creek. One female.

Microneta protrudens Chamberlin and Ivie, new species

(Pl. IX, f. 99)

A small species, comparable in size and color to *anopla*, but distinct from that species in the form of the cephalothorax, which has the clypeus protruding forward as in *viaria*, instead of vertical as in *anopla*. The epigynum, however, is close to that of *anopla*.

Clear Creek. One female.

Also known from females from the Uintah Mts., Utah.

ARGIOPIDAE

Tetragnatha laboriosa Hentz

South Fork of Raft River; Dove Creek. Immature.

Tetragnatha extensa (Linnaeus)

Clear Creek; South Fork of Raft River; Dove Creek. Male, females, immature.

Pachygnatha xanthostoma C. Koch

Grouse Creek. One male.

In wet grass, near stream.

Aranea gemma (McCook)

Clear Creek; Lynn; Park Valley. Females.

Common about old farm buildings at Lynn.

Aranea patagiata Clerck

South Fork of Raft River; Grouse Creek; Dove Creek. Females and young.

With webs in willows along streams.

***Aranea cucurbitina* Clerck**

Clear Creek. Immature.
Collected in sweeping brush.

***Metepeira labyrinthea* (Hentz)**

Clear Creek; South Fork of Raft River; Dove Creek. Immature.
Common in webs on brush.

***Cyclosa conica* (Pallas)**

Clear Creek. Female and immature.
Common in webs on brush and willows.

MIMETIDAE

***Mimetus hesperus* Chamberlin**

Grouse Creek. One female.
Under rock on hillside, devouring an immature *Latrodectus mactans* (Fabricius).

THOMISIDAE

***Xysticus montanaensis* Keyserling**

Clear Creek. One male.
At base of sagebrush on hillside.

***Xysticus locuples* Keyserling**

Grouse Creek. One female.
With egg-sac under bone.

***Xysticus cunctator* Thorell**

Grouse Creek, (female and immature); Lynn and South Fork of Raft River, (immature).

***Platyxysticus utahensis* Gertsch**

Clear Creek. Immature.
Under bark of dead trees.

***Platyxysticus brunneipes* (Banks)**

South Fork of Raft River. One female.
Under bark of dead tree.

Misumena vatia (Clerck)

Clear Creek. Immature. Probably this species.
Collected in sweeping brush.

Misumenops lepidus (Thorell)

Clear Creek; South Fork of Raft River. Male, females, immature.
Collected in sweeping brush.

Philodromus virescens Thorell

Clear Creek; South Fork of Raft River. Immature.
Common in sweepings from brush.

Philodromus pernix Blackwall

Clear Creek; Yost; South Fork of Raft River. Immature.
Under bark of dead trees.

Thanatus coloradensis Keyserling

Clear Creek; South Fork of Raft River. Females and immature.
In dry grass around bases of sagebrush.

Tibellus oblongus (Walckenaer)

Clear Creek; South Fork of Raft River. Immature.
Most commonly found in dry grass around bases of sagebrush.

Ebo sp.

South Fork of Raft River. Immature.
In dry grass at bases of sagebrush.

CLUBIONIDAE

Anyphaena sp.

Clear Creek; South Fork of Raft River; Dove Creek. Immature.
Common among fallen leaves.

Clubiona mimula Chamberlin

Clear Creek. Males and females.
Common among fallen leaves.

Clubiona orinoma Chamberlin

Clear Creek; South Fork of Raft River; Dove Creek; Park Valley.
Females.
Common among fallen leaves.

Clubiona abbotti L. Koch

Clear Creek. One female.
Among fallen leaves.

Micaria montana Emerton

Clear Creek; Lynn; Dove Creek. Male, females, immature.
Under dry rocks.

Micaria aurata (Hentz)

South Fork of Raft River. Male and immature.

Agroeca ornata Banks

Clear Creek; South Fork of Raft River. Males and females.
Common among fallen leaves.

Agroeca pratensis Emerton

South Fork of Raft River. Males and females.
Under a pile of brush and in rotten logs.

Phrurolithus pelvicolens Chamberlin and Gertsch

Clear Creek. Males and female.
Under rocks on hillside.

Phrurolithus formidabilis Chamberlin and Gertsch

South Fork of Raft River. Male and females.
Under rocks.

Phrurolithus utus Chamberlin and Ivie, new species

(Pl. XII, ff. 124-126)

Clear Creek. Male and female.
Common among fallen leaves.

Close to *Ph. alarius* (Hentz) with which it has been hithertofore confused. The females are very similar; the principal difference is in the form of the tibial apophysis of the male palpus, as shown in the figures.

Genus **PIABUNA** Chamberlin and Ivie, new

Near *Phrurolithus* and *Phrurolithus*. Similar to the latter in structure, except for the eyes, in which this genus is distinct. Eye rows nearly equal in length, the posterior being slightly longer than the anterior. Both rows procurved. The dark anterior median eyes are decidedly the largest and face upward more than forward. Posterior

median eyes also much larger than the laterals and scarcely more than their radius apart. The color of the genotype is pale yellowish, without markings.

Genotype: *Piabuna nanna* Chamberlin and Ivic, new species

This is the only species of this genus known.

The much larger spiders of the genus *Chemmis* also have the anterior median eyes larger than the laterals; but in this genus the posterior median eyes are as small as or smaller than the laterals and are twice their diameter apart.

Piabuna nanna Chamberlin and Ivic, new species

(Pl. XII, ff. 121-123)

Pale yellowish throughout; unmarked; eyes margined with black, especially the anterior medians.

Cephalothorax rather low; smoothly convex; height about even from eyes to posterior declivity; widest between second and third coxae; shallowly emarginate behind. Head narrowed, only slightly convex across anterior margin. Median furrow short, scarcely discernible. Without cervical grooves. Clypeus low, width scarcely equal to diameter of anterior lateral eye.

Eye rows nearly equal in length, the posterior being slightly longer than the anterior. Both rows procurved. Anterior median eyes less than a radius apart; nearly contiguous with the lateral eyes. Posterior median eyes elongate and oblique, about three-quarters of their short diameter apart and about half as far from the lateral eyes. Lateral eyes of the two rows nearly contiguous; posterior median eyes a little less than a short radius of one of them from the anterior median eyes. Median ocular area barely wider than long. Anterior medians much larger than anterior laterals, and face upwards more than forward. Posterior medians larger than laterals. The order of size is: anterior medians, posterior medians, posterior laterals, anterior laterals. The anterior median eyes are round and dark, the others are light and irregular in shape.

Chelicerae normal; nearly vertical; rounded; with two small teeth on lower margin of furrow, of which the mesal one is much the larger. Sternum large, broadly egg-shaped, longer than wide, narrower behind than in front; widely separating hind coxae. Endites stout, longer than wide, convergent anteriorly, but not touching. Labium wider than long, semi-circular.

Palpi moderately stout, reaching a little beyond femur of leg I. Legs IV, I, II, III. Many stout spines on legs I and II, arranged as

follows: Leg I—Femur with two spines on distal half of anterior side; tibia with five pairs of ventral spines, but none of these on the apical fifth; metatarsus with two rows of ventral spines, there being four spines in the anterior row and three in the posterior row, the three proximal ones of each row being paired; patella and tarsus without spines. Leg II—Femur without spines; tibia as in leg I; metatarsus with four spines in anterior row, but only two in the posterior row. Legs III and IV without spines. Tarsi without scopuli; the terminal brush reduced to a few hairs.

Abdomen elongate oval. Spinnerets six; short; of equal length; subapical. Epigynum with two small round openings close together, and with the two spermathecae showing through the integument as light brown areas; see figure 123.

Cephalothorax, chelicerae, palpi, legs and under parts covered rather sparsely with light-colored hairs; abdomen with much finer pubescence.

Measurements:

Length 1.9 mm.

Cephalothorax: Length .8, width .6, head .33 mm.

Abdomen: Length 1.1, width .7 mm.

Legs:	I	II	III	IV
Coxa .....	.20	.19	.17	.23
Trochanter .....	.10	.10	.10	.10
Femur .....	.70	.60	.53	.73
Patella .....	.22	.21	.20	.27
Tibia .....	.66	.53	.40	.66
Metatarsus .....	.60	.53	.46	.66
Tarsus .....	.41	.40	.40	.50
TOTAL	2.89	2.56	2.26	3.15

Type locality.—Grouse Creek.

Other locality.—Dove Creek. Females.

AGELENIDAE

Agelena californica Banks

Yost; South Fork of Raft River; Lynn; Grouse Creek; Dove Creek. Males and females.

With typical funnel-shaped webs under rocks and logs on dry hill-sides. Spiders exhibit a great deal of variation in size and color.

Agelena utahana Chamberlin and Ivie, new species

(Pl. XI, ff. 113-115)

Color.—Carapace with light yellowish background; thorax narrowly bordered on the sides with blackish; a wide brown area on each side, beginning on side of head and extending to base, outlines irregular; radial streaks on thoracic part more intense. Chelicerae light orange with white tips. Labium and sternum medium reddish-brown, the labium with a narrow pale tip, the sternum usually paler along median line. Legs and palpi light yellowish, with dusky annuli, which are usually more or less indistinct and irregular in the adults, especially the males; these are arranged as follows: four on the femur, one on the patella, two or three on the tibia, three on the metatarsus; on the palpi there are two annuli, one at the distal end of the tibia, and one at the distal end of the patella (less distinct in male). Male palpal organs blackish.

Abdomen with light grayish ground color. A broad dorsal median band extends the whole length and contains basally a dusky-brown lanceolate mark, the remainder being of a grayish-red color; this band bordered for the basal third by a light yellowish-gray, more or less irregular, line, and outlined posteriorly by a row of small, widely separated spots of the same color on each side. On each side of the median band is a narrow, ectally diffused strip of dusky brown, extending the full length. The sides spotted with brown on the ground color. Sides of venter pale gray. A broad median ventral band of reddish-brown, which is darker along sides and across posterior end, and paler along the center, extends from the epigastric furrow to the spinnerets. Epigastric plates yellowish; epigynum tinged with red and dusky-brown. Spinnerets light orange-brown, shaded with dusky.

Male: Carapace somewhat pear-shaped, the head part narrow, the thoracic part broad and rounded; widest near middle of thoracic part; front of head nearly square. Median depression a short line-like furrow. Cephalothorax of average elevation; sub-equal in height from median furrow to front of head, being slightly convex; declining steeply behind. Clypeus slightly reclined; a little wider than the diameter of an anterior lateral eye.

Eye area occupying slightly more than one-half the width of the head. Posterior row slightly longer than the anterior. Both rows much procurved. Size subequal, the order of size being: anterior lateral, anterior median, posterior lateral, posterior median. Posterior median eyes about one diameter apart, slightly farther from the lateral eyes. Anterior median eyes a little more than a radius apart, about the same distance from the side eyes. The lateral eyes on each side a little more than a radius of an anterior lateral eye apart; the median eyes of the two rows about the diameter of an anterior median eye apart. Median ocular area longer than wide, of about equal width in front and behind.

Chelicerae straight, slightly reclined; sides parallel; mesal sides contiguous; lateral condyle distinct; furrow with three teeth on each margin. Endites of average size; about twice as long as wide; widely separated, converging only slightly; scopulate at tips. Labium about as long as wide, half as long as length of endites; trapeziform with basal corners notched out. Sternum orbicular-chordate; as wide as long; anterior corners broadly rounded, sides rounded, widest at back of second coxae, obtuse point behind slightly separating hind coxae.

Legs rather long; robust at femur, tapering distally until apical segments are quite slender. Spiny; spines arranged as follows: Femora II and III—three spines along dorsal midline, and two pairs of dorso-lateral spines alternating with these; femur I—similar to II and III, except the proximal pair of dorso-lateral spines with the anterior spine set much farther apically and the posterior spine much reduced in size; femur IV—similar to II and III, except apical median spine and posterior spine of the proximal pair usually absent. Patellae—an apical and a sub-basal spine along dorsal mid-line; and a dorso-lateral pair near the middle. Tibia I—two pairs of ventral spines, one near base and the other near the middle; a small anterior ventral spine at apex; two spines on anterior face; two slender spines along dorsal mid-line; tibia II—spines 1-2-0 or 1-1-0 below, there being two spines in the posterior ventral row; two spines on dorso-anterior face; tibiae III and IV—two dorsal spines; two on anterior side; two on posterior side; occasionally three pairs below, but usually with the posterior spines of the two proximal pairs absent, spines of the distal pair short. Metatarsus I—a pair of ventral spines near base, another pair near middle; a spine on the anterior face between these two pairs; three apical spines below, one ventral and one on each side; metatarsus II—similar to I, with an additional antero-dorsal spine at apex; metatarsus III—apical and sub-basal ventral pairs; two additional spines in posterior ventral row and one in the anterior row between the paired spines; a pair of lateral spines near apex; two additional spines on anterior face, one on posterior face; two pairs of dorso-lateral spines (sub-apical and sub-basal), and a posterior dorsal spine near middle; metatarsus IV—a pair of apical ventral spines and a pair of ventro-lateral spines slightly proximad of these; three ventral spines in the posterior row and two in the anterior row, not paired; three dorso-lateral pairs (sub-apical, sub-median, and sub-basal); one additional spine on anterior face and a sub-basal dorsal spine. Tarsi I and II without spines; tarsi III and IV—two spines on anterior face and one on posterior face. Claws three; paired claws with about nine long teeth.

Femur of palpus slender at base, enlarging apically, unmodified. Patella short, about as wide as long, unmodified. Tibia short and stout, with a pointed extension on ectal side. Cymbium broad near base, attenuated into a long slender tip apically; embolus long and stout, coiled, making one and one-fourth circles; more closely coiled than in

the typical form of *Agelena naevia*. Spines on palpus as follows: Femur with spines 1-1-2 above; patella with two spines on dorsal mid-line; tibia with three dorso-mesal spines and one dorso-ectal spine; cymbium with three spines on mesal border, two on the ectal border and two on dorsal face on basal half.

Abdomen rather small, fusiform, usually about twice as long as wide; widest near middle, about as high as wide, highest at base. Spinnerets rather stout, sub-apical. Front pair distinctly, though not widely, separated; middle pair small; hind pair long, with the terminal segment longer than the basal.

Covered with coarse setae; the setae of the abdomen underlaid with finer pubescence; a lesser amount of pubescence on the basal segments of the legs.

Female: Eyes similar to male, except anterior median eyes much less than a radius apart, and about the same distance from the side eyes; lateral eyes nearly contiguous; median ocular area proportionately shorter, but still longer than wide. Chelicerae similar, somewhat stouter, slightly geniculate at base; lower margin occasionally with four teeth (abnormal). Labium and endites shorter; endites more convergent at tips; labium wider than long. Abdomen much larger and more rounded than in male, otherwise similar. Epigynum shows a transversely elongate opening with two obtuse tooth-like processes on anterior margin. Spines on legs as in male, with the following exceptions: Leg I—posterior spine of proximal pair on femur very small or absent; tibia with hapical ventral spine and dorsal spines absent. Leg II—apical dorsal spine of femur small or absent. Leg III—femur same as femur II in female; metatarsus with three pairs below and with an additional dorsal spine near base. Leg IV—dorsal apical spine of femur missing; tibia with spines 1-1-2 below, two pairs of lateral spines, and one dorsal spine near base.

Measurements:

MALE

Length: 7.7 mm.

Cephalothorax: Length 4.0, width 2.9, head 1.4 mm.

Abdomen: Length 4, width 2.3 mm.

Chelicerae: 1.9 mm.

Legs:	I	II	III	IV	Palpus
Coxa	1.3	1.3	1.1	1.3	.....
Trochanter .....	.03	0.3	0.3	0.3	0.4
Femur	4.1	4.0	3.6	4.7	1.6
Patella	1.6	1.4	1.4	1.6	0.5
Tibia	4.0	3.4	3.0	4.0	0.4
Metatarsus	4.3	3.9	4.1	5.9	.....
Tarsus	2.6	2.4	2.1	2.7	2.0
TOTAL	18.2	16.7	15.6	20.5	4.9

FEMALE

Length: 11.2 mm.

Cephalothorax: Length 4.3, width 3.1, head 1.9 mm.

Abdomen: Length 7, width 5 mm.

Chelicerae: 1.7 mm.

Legs:	I	II	III	IV	Palpus
Coxa	1.3	1.3	1.3	1.6	.....
Trochanter	0.3	0.3	0.3	0.3	0.3
Femur	3.7	3.6	3.3	4.4	1.6
Patella	1.4	1.4	1.4	1.4	0.6
Tibia	3.1	2.9	2.6	3.6	0.8
Metatarsus	3.3	3.2	3.4	5.0	.....
Tarsus	2.2	2.1	1.9	2.3	1.6
TOTAL	15.3	14.8	14.2	18.6	4.9

Type locality.—Clear Creek. Male and females.

In a web under bark of an old cottonwood stump.

A form common in the mountains of Utah. Formerly confused with *A. naevia* Walck. This species may be distinguished by its smaller size, coloration, and form of epigynum and palpus.

Cicurina robusta Simon

Cicurina robusta Simon, Ann. Soc. Ent. Belgique, XXX, p. 60.

Cicurina garrina Chamberlin, Ann. Ent. Soc. America, 1919, XII, p. 256, pl. xix, fig. 9.

Clear Creek; South Fork of Raft River. Males and females.

Common under rotten logs and rocks.

Cicurina intermedia Chamberlin and Ivie, new species

(Pl. XI, ff. 116-118)

Color.—Carapace, legs, palpi, and sternum light to medium brown; the male palpal organs darker. Chelicerae, labium and endites reddish-brown, the endites and labium with whitish tips. Abdomen pale grayish. Spinnerets light yellow; epigynum light reddish-yellow.

Male: Carapace somewhat ovoid; clypeus slightly convex across front, corners of head distinct, sides of head short; sides of thorax long and evenly convex, somewhat truncate behind. Carapace rather low, rounded; highest at front end of median furrow, sloping gently towards the eyes, more steeply behind. Width of clypeus slightly greater than diameter of anterior lateral eyes. Median furrow a black line-like groove.

Eye area occupying faintly more than half the width of the head. Posterior row the longer. Anterior row distinctly procurved, the posterior row only faintly so. Median eyes smaller than the laterals, the

laterals being about equal in the two rows; the anterior median eyes slightly smaller than the posterior median eyes. Eyes of anterior row only slightly separated. Posterior median eyes more than a diameter apart and much nearer the side eyes, the relative distances varying in different individuals. Lateral eyes touching; median eyes less than a radius of an anterior median eye apart. Median ocular area wider than long and much wider behind than in front. The relative sizes and positions of the eyes are variable in different individuals—the usual condition is as given above.

Chelicerae vertical, rounded, slightly geniculate at base in front, contiguous for much of length; sides nearly parallel in general outline. Laternal condyle distinct; a small spine on each anteromesal corner near base. Furrow with five teeth below, three above, the middle one above large, the other two small and often indistinct.

Endites rather thick, rounded, somewhat longer than wide; converging very slightly, widely separate at tips; margins of tips scopulate. Labium about half the length of the endites; nearly as long as wide; trapeziform with lower corners notched; tip scopulate. Sternum fairly large, longer than wide; chordate, the anterior corners rounded, sides rounded, a short acute process behind separating hind coxae.

Legs robust; tapering; IV, I, II, III; spiny. Spines arranged as follows: Femora—each with two long spines on dorsal mid-line, one sub-basal and one at middle, and about five smaller spines near distal end distributed dorsally and dorso-laterally. Patellae—each with a small spine above at distal end. Tibiae I with 3 pairs below, of which the distal pair is small, and 3 on anterior face; II with 2 large spines below on the posterior side and a pair of small spical spines below, which may be reduced or absent, and a small spine paired with the more distal of the large ones; two small spines on anterior face; III and IV with 3 pairs below; 2 on each lateral face; a slender dorso-lateral spine near base on posterior side, and a smaller one near distal end above. Metatarsi—I with three pairs below and four small spines on anterior face; II with three pairs below and five more spines on anterior face; III and IV with spines 2-2-1 below, five more on anterior side and four on posterior side, all long and stout. Palpus as shown in the figures.

Abdomen nearly twice as long as wide; widest back of middle, highest near base, nearly as high as wide; rounded. Spinnerets sub-apical, rather large; hind pair longest with a distinct apical segment about half as long as the basal. Front pair thickest and well separated; middle pair slender. Lung openings darkened.

Covered with coarse brown hair, sparse on carapace.

Female: Similar to male except: Thorax narrower; head longer and thicker; carapace more convex, head slightly more elevated. Chelicerae larger and strongly geniculate. Tubes of epigynum shown in the figure.

Measurements:

MALE

Length: 4.7 mm.

Cephalothorax: Length 2.20, width 1.63, head .80 mm.

Abdomen: Length 2.5, width 2.6 mm.

Chelicerae: .73 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.73	.66	.60	.60	.....
Trochanter .....	.26	.26	.26	.26	.30
Femur	1.66	1.60	1.46	1.86	.80
Patella .....	.73	.73	.66	.73	.33
Tibia	1.46	1.20	1.06	1.60	.30
Metatarsus	1.33	1.26	1.30	1.86	.....
Tarsus .....	.86	.80	.76	.96	.93
TOTAL	7.03	6.51	6.10	7.87	2.66

FEMALE

Length: 6 mm.

Cephalothorax: Length 2.4, width 1.4, head 1.0 mm.

Abdomen: Length 3.7, width 2.9 mm.

Chelicerae: .93 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.73	.66	.60	.66	.....
Trochanter .....	.26	.26	.26	.26	.30
Femur	1.73	1.52	1.40	1.73	.80
Patella .....	.66	.66	.66	.80	.33
Tibia	1.40	1.20	1.00	1.52	.47
Metatarsus	1.20	1.13	1.13	1.73	.....
Tarsus .....	.80	.80	.73	.86	.73
TOTAL	6.78	6.23	5.78	7.56	2.63

Type locality.—Clear Creek; South Fork of Raft River. Males and females.

Under rocks.

Other localities.—Uintah Mts., Wasatch Mts., Henry Mts.

This little *Cicurina* is an intermediate type in the form of the palpus and epigynum. It is considered advisable to describe it as new, since it cannot be adequately identified with any of the known species.

Hahnia radula Emerton

South Fork of Raft River; Creek east of Yost. Male and females.
Under rocks.

Hahnia cinerea Emerton

Clear Creek; South Fork of Raft River; Dove Creek. Males and females.

Common among fallen leaves and in dry grass about bases of sagebrush near streams.

Common in the mountains throughout the state.

LYCOSIDAE

Pardosa sternalis (Thorell)

Clear Creek; Creek east of Yost; Yost; South Fork of Raft River; Grouse Creek; Dove Creek. Males, females, immature.

Common in grass near water at most localities.

Abundant throughout the state.

Pardosa coloradensis Banks

South Fork of Raft River. Female and immature.

In grass near water.

Found at high altitudes in various parts of the state. The males are apparently unknown.

Pardosa mackenziana (Keyserling)

Clear Creek; South Fork of Raft River. Females.

Common under logs, etc., on higher ground, usually away from water.

Pardosa atra Banks

Clear Creek. Female and immature.

Pardosa groenlandica (Thorell)

Creek east of Yost; South Fork of Raft River; Lynn; Grouse Creek; Dove Creek. Females and immature.

Usually fairly close to water.

Pardosa emertoni Chamberlin

Clear Creek; Yost; South Fork of Raft River; Lynn; Dove Creek. Females, carrying egg-sacs.

Common on dry ground.

Lycosa avida Walckenaer

Clear Creek; South Fork of Raft River. Females.

Lycosa frondicola Emerton

Clear Creek. One male.
In grass at base of sagebrush.

Lycosa kochi Keyserling

Clear Creek; Yost. Immature.

Lycosa orophila Chamberlin and Gertsch

Clear Creek; Grouse Creek; Dove Creek. Males and females.
In wet grass near water.

Arctosa rubicunda (Keyserling)

South Fork of Raft River. One female.
Under rock near water.

Pirata sylvestris Emerton

South Fork of Raft River. Two females.
Under rock near water, with egg-sacs.

OXYOPIDAE

Oxyopes rufipes Banks

Clear Creek; South Fork of Raft River. Immature.
Collected from sweeping brush.

SALTICIDAE

Phidippus johnsoni Peckham

Clear Creek; South Fork of Raft River; Dove Creek. Females and immature.

Under rocks on dry hillsides.

Phidippus asotus Chamberlin and Ivie, new species

(Pl. XII, ff. 128-129)

Male: Integument of carapace brown, thickly overlaid with whitish scale-like hairs giving it a grayish appearance. Chelicerae brown, pale basally, darker apically, without iridescence. Labium and endites brown with whitish tips. Sternum dark brown. Legs and palpi with a light yellowish ground color, with darker markings, thus: the femora dark dusky-brown except at distal end above; tibiae and patellae with two narrow brown stripes above; patellae, tibia and metatarsi each with

a broad dusky band, those on the patellae and tibiae being not quite apical, that on the metatarsus apical, extending onto base of tarsus.

Abdomen in general brownish-gray above, with a broad irregular median band of lighter, and each side of this an indistinct stripe of darker, fading to a paler grayish-brown toward the sides; a broad dusky band along each side. Five pairs of light oblique stripes extending down the sides, the basal pair extending across the base of the dorsum and joining. Venter dusky brown without markings. Spinnerets dusky, except middle pair which is whitish.

Carapace three-fourths as wide as long; sides convex; broadly truncate at each end; widest slightly in front of middle. Head moderately elevated; shallowly depressed between eyes of third row; rounded anteriorly; posterior declivity occupying about one-third length of cephalothorax. Anterior eyes projecting over clypeus. Width of clypeus about one-fourth diameter of anterior median eye.

Eye area occupying a little less than one-half length of carapace. Third eye row longest, second shortest. Anterior median eyes much the largest, the order of size being anterior medians, anterior laterals, third row, second row—the diameters being in the proportions of 7, 5, 5, 2. Anterior row recurved; anterior median eyes slightly separated and about a half radius from the laterals. Middle eyes nearer to the anterior eyes than to the posterior eyes.

Chelicerae small, stout, vertical; lower margin of furrow with one large tooth. Endites longer than broad; broadly clavate apically; mesal corner rounded, bearing dense black scopula along margin. Labium small, wider than long; about one-third length of endites. Sternum small; elongate, more than twice as long as wide; widest back of middle; not separating hind coxae.

Legs short, stout; relative lengths I, IV, II, III; leg I much the heaviest and without special fringes. Legs with short stout spines arranged as follows: all femora with several dorsal and dorso-lateral spines; patellae without spines; tibia—I with 3 ventral pairs on apical half; II with 3 ventral spines in posterior row and one spine in the anterior row, which is paired with the apical spine of the posterior row, also a small lateral spine on the anterior face; III with an apical pair of ventral spines and a lateral spine on each side; IV with a pair of apical ventral spines and with another proximal ventral spine on anterior side, two lateral spines on posterior face; Metatarsi—I and II with 2 pairs of ventral spines, one pair apical and the other near the middle; III with 6 apical spines below and on sides; IV with 5 apical spines below and on sides, and a lateral spine on anterior side near middle; tarsi without spines.

Abdomen of the typical ovoid shape; highest at base, widest near middle; bluntly pointed behind. Spinnerets moderately long, slender, of about equal length.

Sparsely covered with long coarse black setae. The legs with a denser growth of fine long white hairs among the black setae. Dorsum and sides of abdomen, carapace, femora, and to a lesser extent the tibiae and patellae, covered with a layer of short appressed scale-like whitish hairs. Tarsi with dense black terminal brush of tenent hairs; scopulate below on apical part.

An immature female is essentially similar in color and structure, allowing for usual sexual differences.

Measurements:

Length: 7.3 mm.

Cephalothorax: Length 3.7, width 2.7, head 2.0 mm.

Abdomen: Length 4.0, width 2.7 mm.

Chelicerae: 1.0 mm.

Legs:	I	II	III	IV	Palpus
Coxa .....	.86	.80	.73	.86	.....
Trochanter .....	.43	.43	.43	.43	.33
Femur	2.00	1.80	1.73	2.20	1.06
Patella	1.60	1.26	1.06	1.06	.37
Tibia	1.93	1.26	1.06	1.53	.26
Metatarsus	1.53	1.26	1.26	1.60	.....
Tarsus	1.06	.93	.86	1.13	1.06
TOTAL	9.41	7.74	7.13	8.81	3.08

Type locality.—Grouse Creek. Male and immature female.

Near *Ph. femoratus*, but lacks the fringe of hairs on the anterior femur.

Dendryphantes verecundus Chamberlin and Gertsch

Clear Creek; South Fork of Raft River. Female and immature.
Collected by sweeping brush.

Dendryphantes uteanus Chamberlin and Gertsch

Clear Creek; South Fork of Raft River. Females and immature.
Collected in sweeping brush.

Dendryphantes capitatus (Hentz)

South Fork of Raft River. One immature.
Collected in sweeping brush.

Dendryphantes sp.

South Fork of Raft River. Immature.
Collected in sweeping brush.

Dendryphantes sp.

South Fork of Raft River. Immature.
Collected in sweeping brush.

Evarcha hoyi (Peckham)

South Fork of Raft River; Dove Creek. Two males.

Habrocestum sp.

South Fork of Raft River. One immature,
Collected in sweeping brush.

Salticus peckhamae (Cockerell)

Lynn. One male.
On rock on dry hillside.

Icius similis Banks

Clear Creek. Female and immature.
In dry grass at bases of sagebrush.

Neon nelli Peckham

Clear Creek. Female and immature.
Among fallen leaves.

Explanation of Figures

Plate I

- Fig. 1. *Dictyna idahoana* Chamberlin and Ivie, new species. Left palpus of male, mesal view.
- Fig. 2. Same. Left palpus of male ecto-ventral view.
- Fig. 3. Same. Epigynum.
- Fig. 4. *Steatoda hespera* Chamberlin and Ivie, new species. Left palpus, ventral view.
- Fig. 5. Same. Left palpus, sub-dorsal view.
- Fig. 6. Same. Epigynum.
- Fig. 7. *Steatoda borealis* (Hentz). Epigynum, to compare with that of *hespera*.
- Fig. 8. *Enoplognatha mimoides* (Chamberlin). Epigynum.
- Fig. 9. *Lithyphantes distinctus* (Thorell). Epigynum of Raft River specimen (less depressed anteriorly than usual).

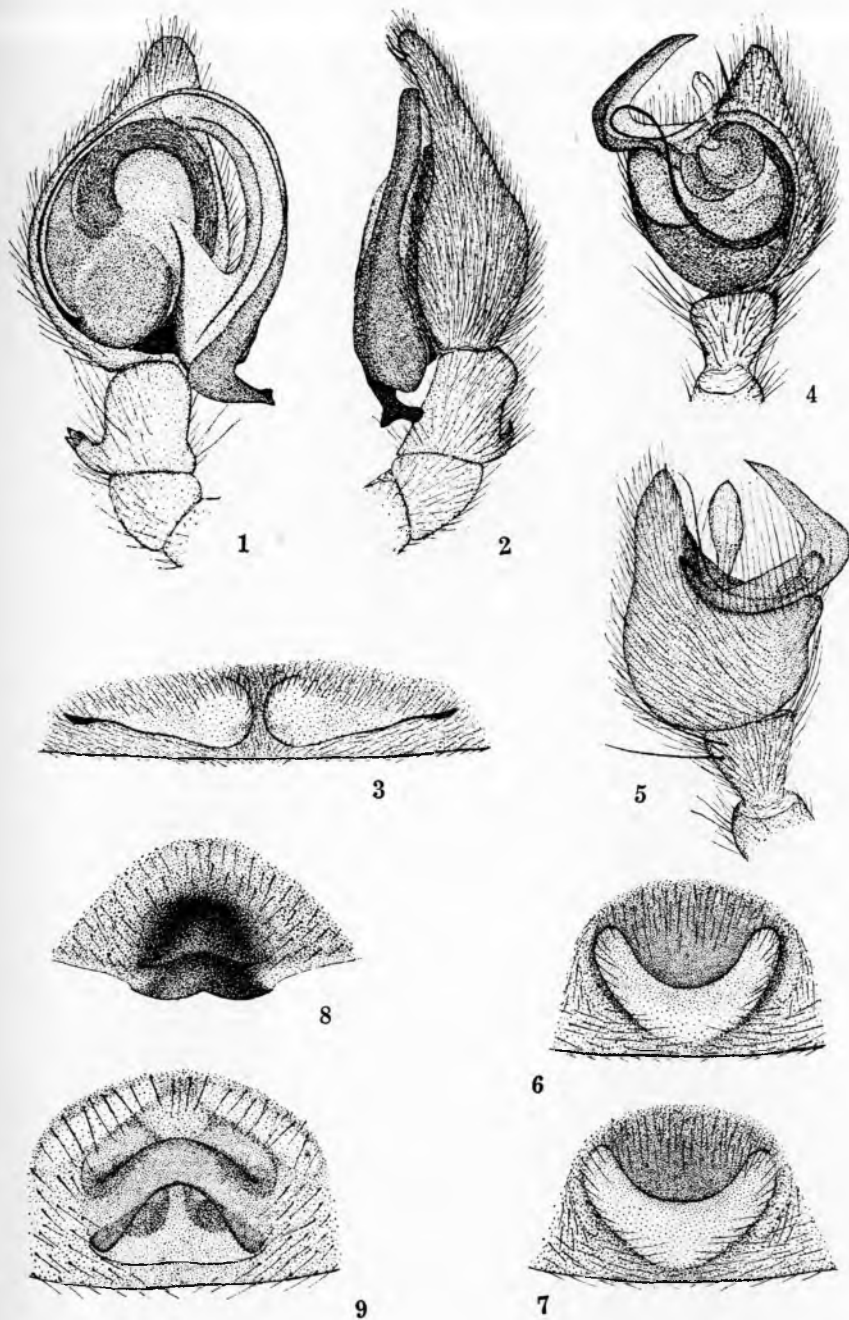


Plate I

Plate II

- Fig. 10. *Garritus vigerens* Chamberlin and Ivie, new species. Ventral view of cephalothorax.
- Fig. 11. Same. Eyes.
- Fig. 12. Same. Tip of tarsus.
- Fig. 13. Same. Leg I of female.
- Fig. 14. Same. Cephalothorax, dorsal view.
- Fig. 15. Same. Cephalothorax, lateral view.
- Fig. 16. Same. Front.
- Fig. 17. Same. Left palpus, dorsal view.
- Fig. 18. Same. Left palpus, ventral view.
- Fig. 19. Same. Left palpus, ectal view.
- Fig. 20. Same. Epigynum.

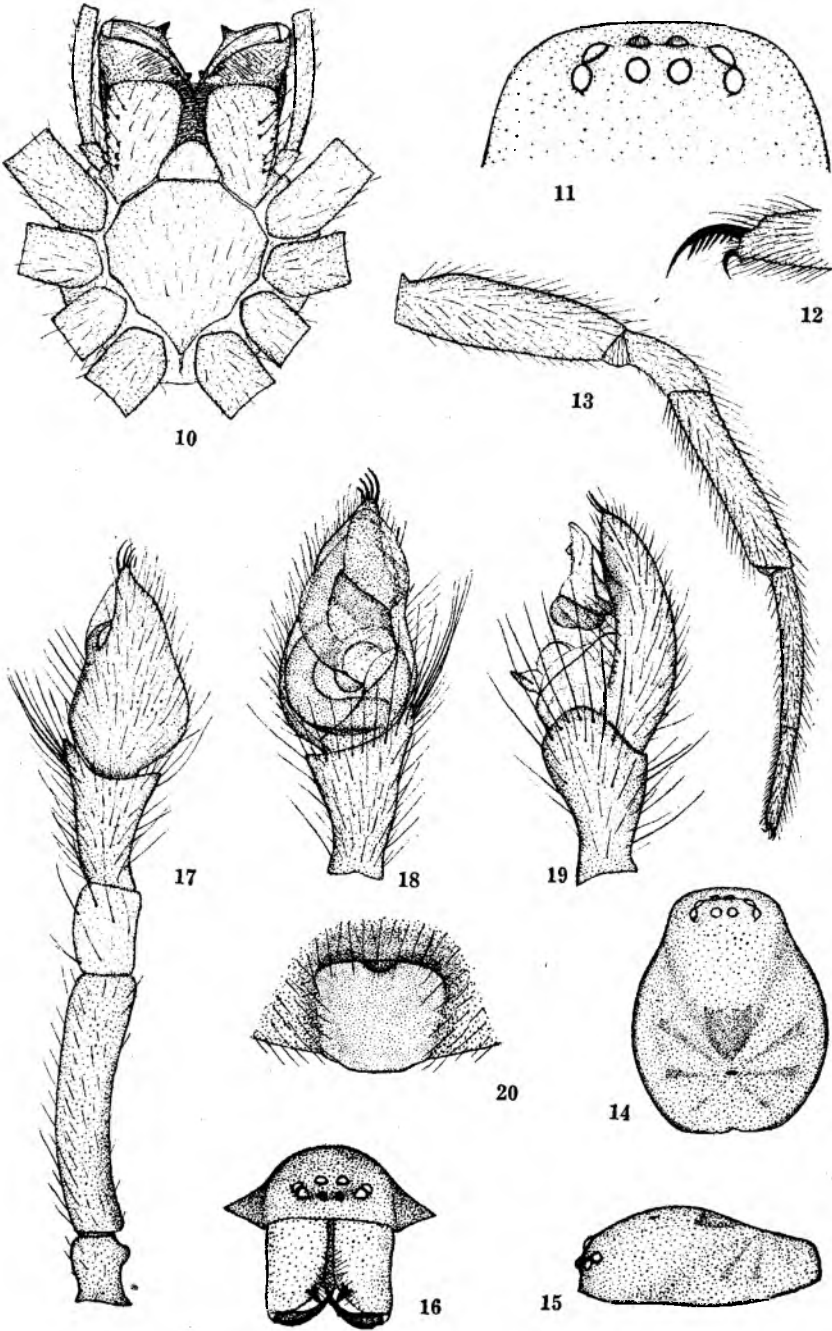


Plate II

Plate IV

- Fig. 28. *Eperigone taibo* Chamberlin and Ivie, new species. Epigynum, anteroventral view.
- Fig. 29. Same. Epigynum, lateral view.
- Fig. 30. Same. Epigynum, ventral view, covered with secretion.
- Fig. 31. Same. Same as above, lateral view.
- Fig. 32. *Catabrithorax clypiellus* Chamberlin. Epigynum.
- Fig. 33. *Eulaira dela* Chamberlin and Ivie, new species. Left palpus, ventral view.
- Fig. 34. Same. Left palpus, ectal view.
- Fig. 35. Same. Left palpus, dorsal view.
- Fig. 36. Same. Epigynum.
- Fig. 37. *Eulaira schediana* Chamberlin and Ivie, new species. Left palpus, ventral view.
- Fig. 38. Same. Left palpus, ectal view.
- Fig. 39. Same. Left palpus, dorsal view.
- Fig. 40. Same. Epigynum.

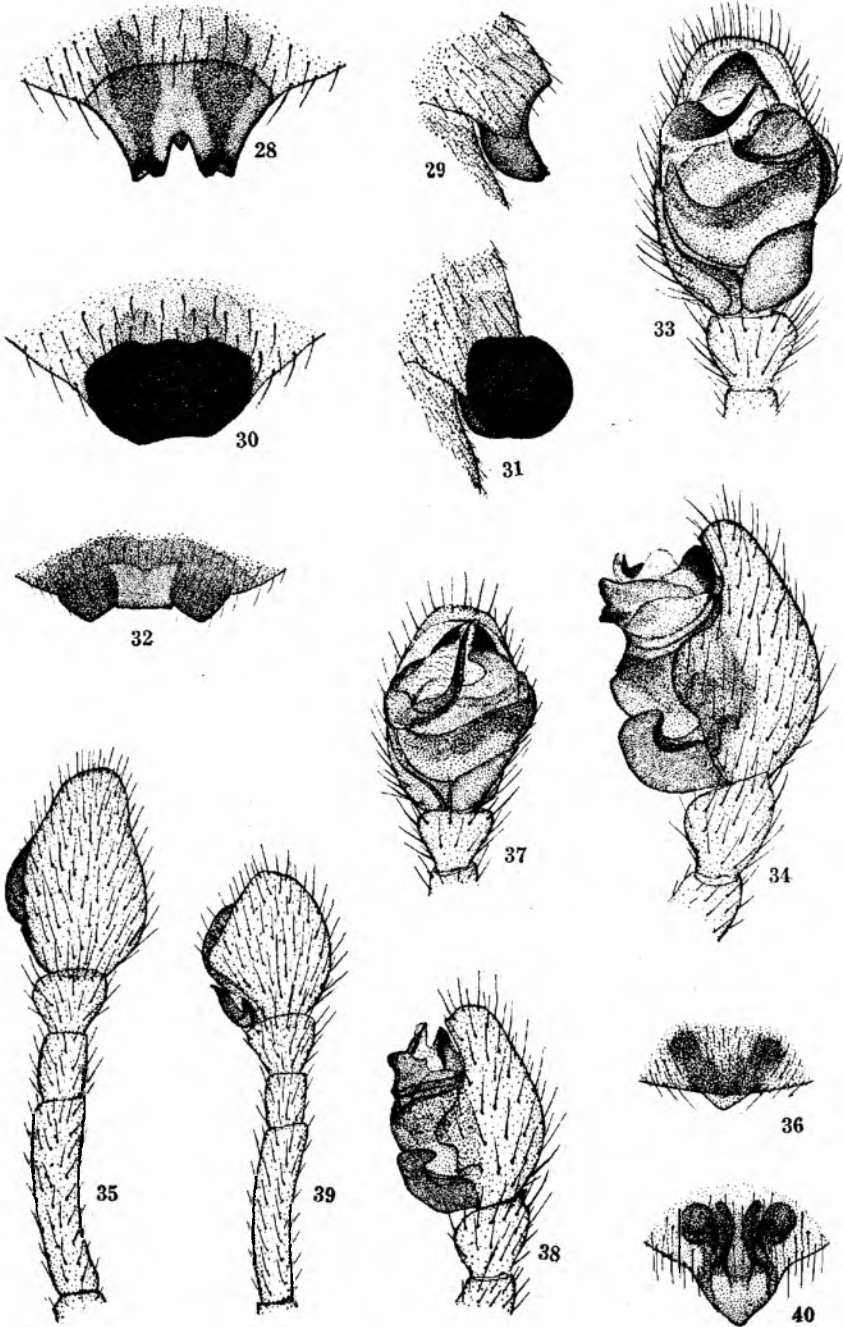


Plate IV

Plate V

- Fig. 41. *Spirembolus mundus* Chamberlin and Ivie, new species. Left palpus, dorsal view.
- Fig. 42. Same. Left palpus, ectal view.
- Fig. 43. Same. Epigynum (septum often much lighter than shown here, sometimes being pure white).
- Fig. 44. *Disembolus stridulans* Chamberlin and Ivie, new species. Left palpus, ventral view.
- Fig. 45. Same. Left palpus, ectal view.
- Fig. 46. Same. Tibia of left palpus, dorso-ectal view.
- Fig. 47. *Ceratinella acerea* Chamberlin and Ivie, new species. Epigynum.
- Fig. 48. *Oedothorax orites* (Chamberlin). Epigynum, showing form with narrow median depression.
- Fig. 49. *Spiropalpus spiralis* Emerton. Epigynum.

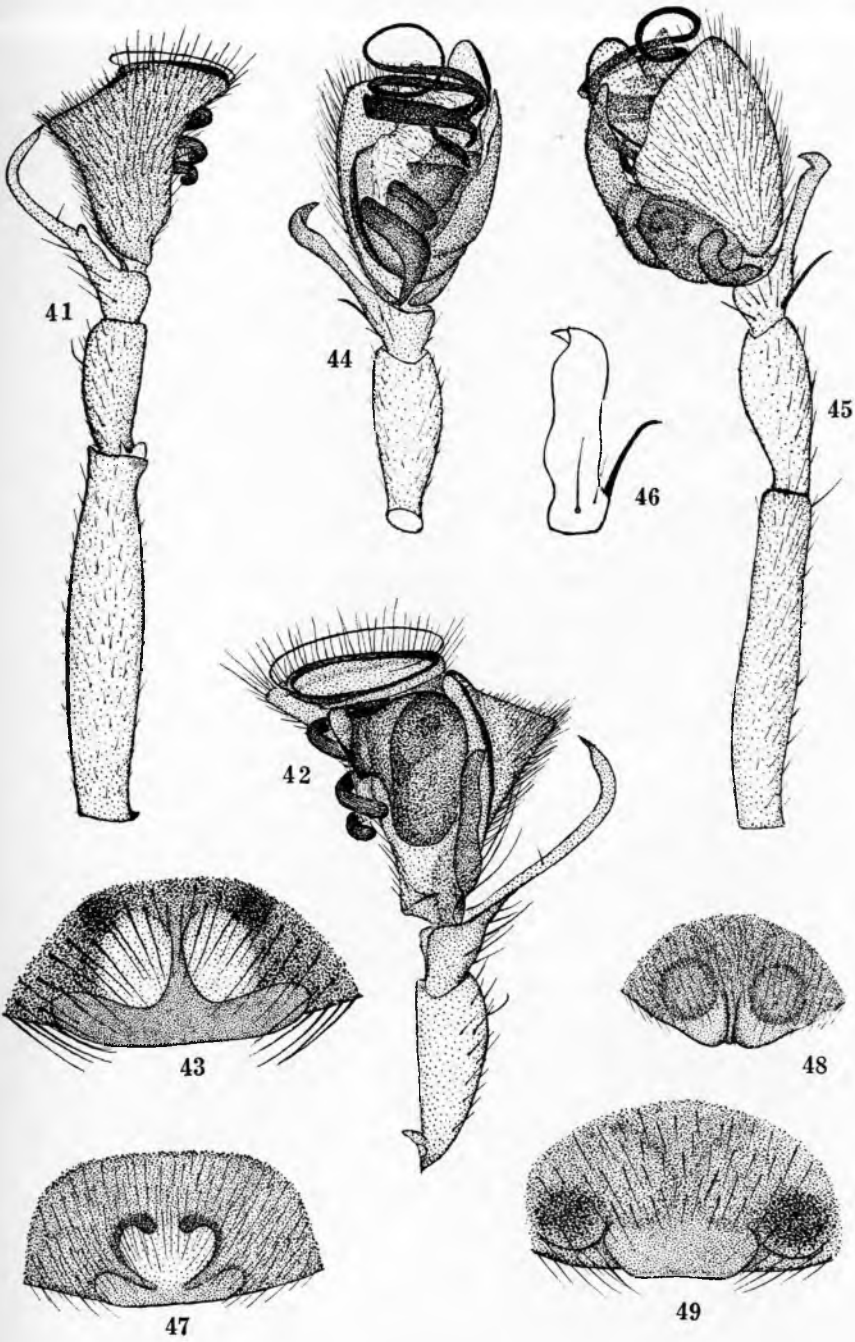


Plate V

Plate VI

- Fig. 50. *Spirembolus mundus* Chamberlin and Ivie, new species. Male, lateral view.
- Fig. 51. Same. Claws of tarsus.
- Fig. 52. Same. Left chelicera.
- Fig. 53. *Spirembolus monticolens* (Chamberlin). Claws of tarsus.
- Fig. 54. Same. Left chelicera.
- Fig. 55. *Disembolus stridulans* Chamberlin and Ivie, new species. Male, lateral view.
- Fig. 56. Same. Claws of tarsus.
- Fig. 57. Same. Left chelicera.
- Fig. 58. *Anacornia microps* Chamberlin and Ivie, new species. Male, lateral view.
- Fig. 59. Same. Left chelicera.
- Fig. 60. Same. Tip of tarsus.
- Fig. 61. *Microneta fratrella* (Chamberlin). Female, lateral view.
- Fig. 62. *Cornicularia thrinax* Chamberlin and Ivie, new species. Male, lateral view.

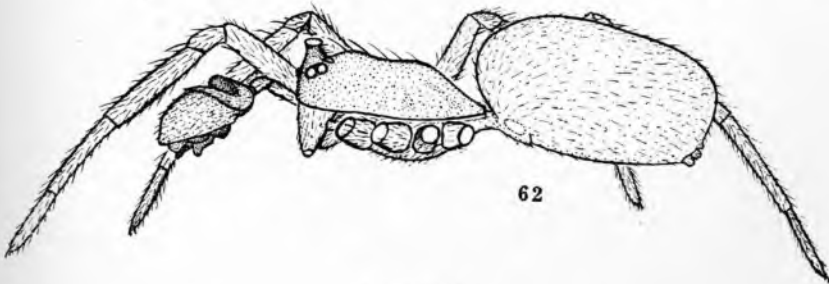
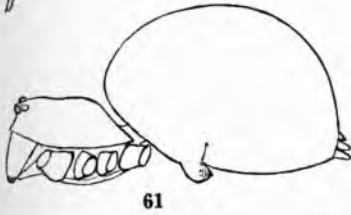
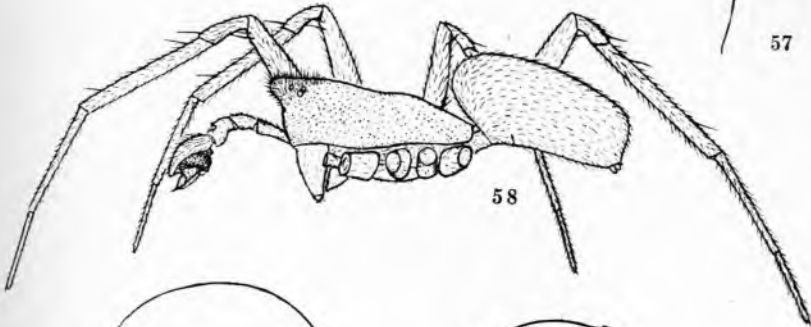
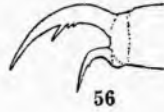
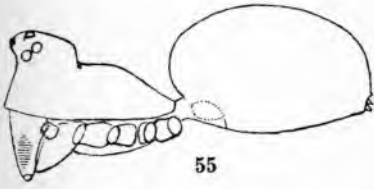
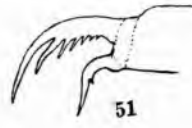
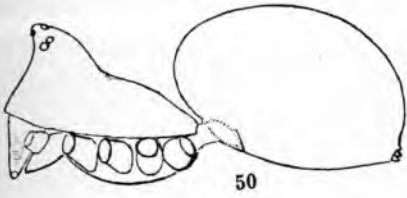


Plate VI

Plate VII

- Fig. 63. *Anacornia microps* Chamberlin and Ivie, new species. Male, dorsal view of cephalothorax.
- Fig. 64. Same. Front.
- Fig. 65. Same. Epigynum.
- Fig. 66. Same. Left palpus, ventral view.
- Fig. 67. Same. Left palpus, ectal view.
- Fig. 68. Same. Tibia of left palpus, meso-dorsal view.
- Fig. 69. *Cornicularia thrinax* Chamberlin and Ivie, new species. Male, dorsal view of cephalothorax.
- Fig. 70. Same. Front.
- Fig. 71. Same. Left palpus, ventral view.
- Fig. 72. Same. Left palpus, ectal view.
- Fig. 73. Same. Left palpus, dorsal view.
- Fig. 74. Same. Epigynum.

Plate VII

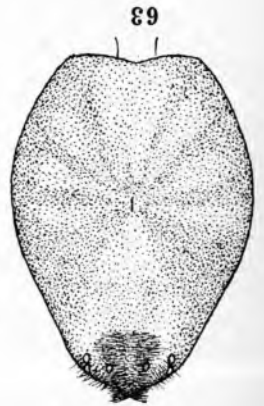
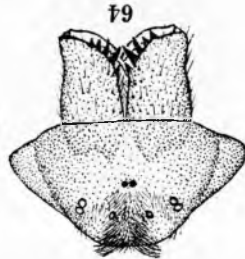
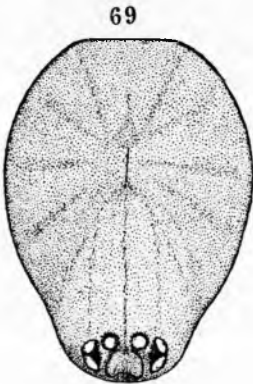
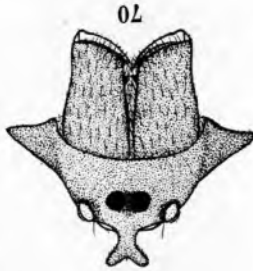
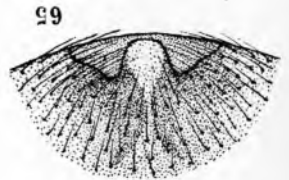
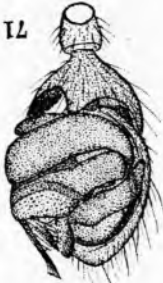
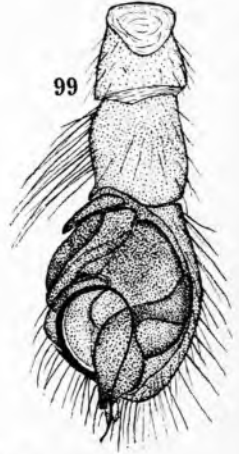
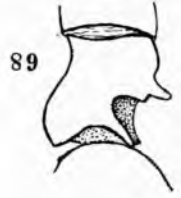
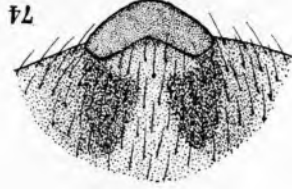


Plate VIII

- Fig. 75. *Nanavia monticola* Chamberlin and Ivie, new species. Left palpus, mesodorsal view.
- Fig. 76. Same. Left palpus, ectal view.
- Fig. 77. Same. Left palpus, ventral view.
- Fig. 78. Same. Spinnerets.
- Fig. 79. Same. Claws of tarsus.
- Fig. 80. Same. Left chelicera of female.
- Fig. 81. Same. Left chelicera of male.
- Fig. 82. Same. Epigynum.
- Fig. 83. *Linyphia ephedra* Chamberlin and Ivie, new species. Epigynum, lateral view.
- Fig. 84. Same. Epigynum, ventral view.
- Fig. 85. *Linyphia orinoma* Chamberlin. Left palpus, ventral view.
- Fig. 86. Same. Left palpus, mesal view.

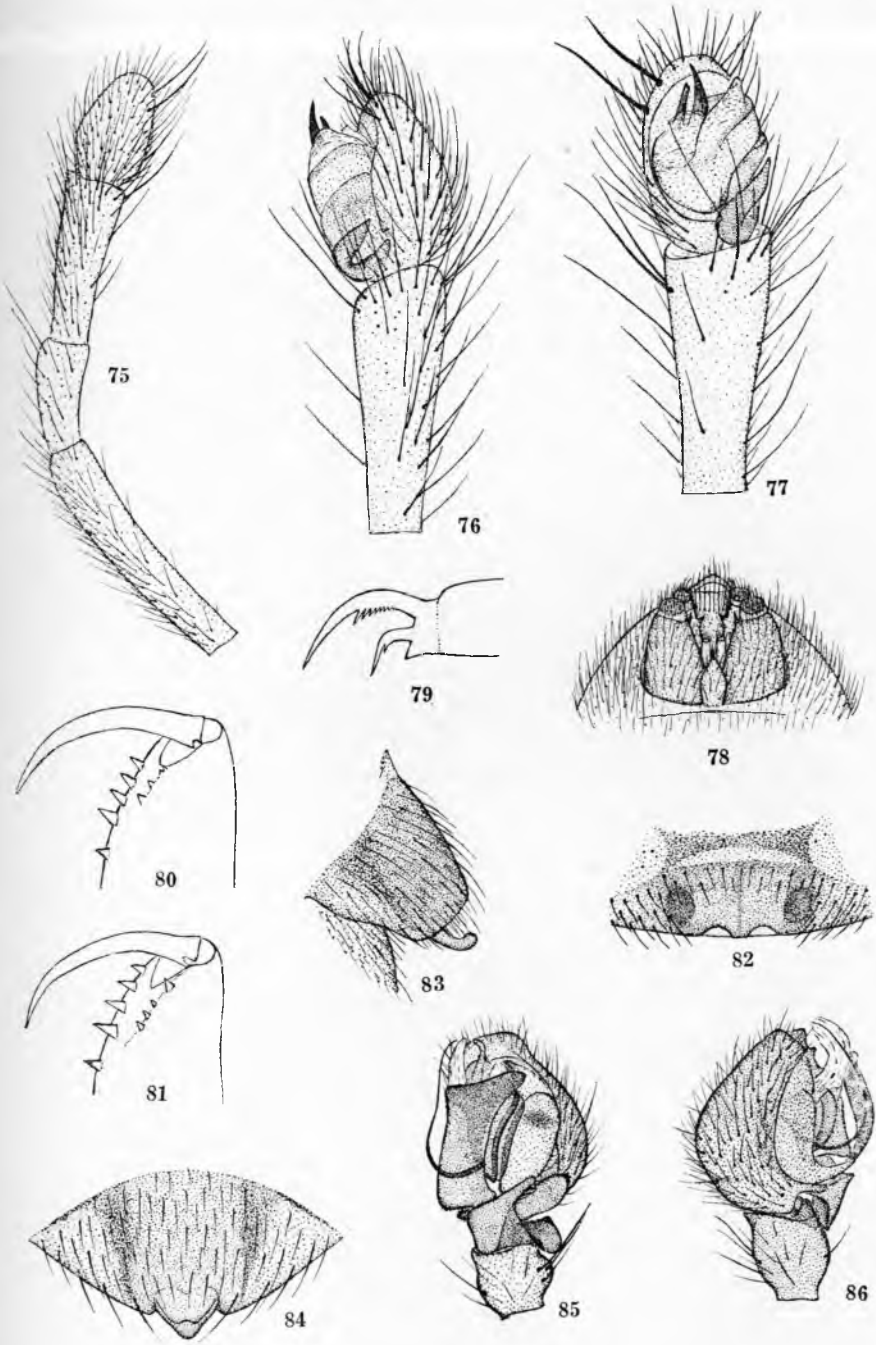
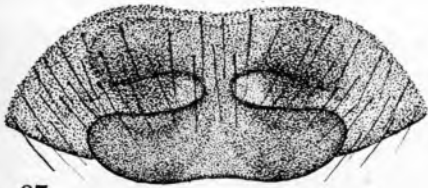


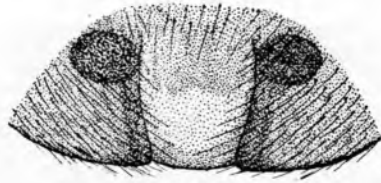
Plate VIII

Plate IX

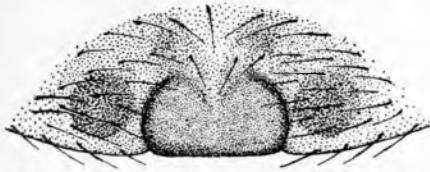
- Fig. 87. *Spirembolus chera* Chamberlin and Ivie, new species. Epigynum.
- Fig. 88. *Ceratinopsis* sp. Epigynum.
- Fig. 89. *Oedothorax* sp. A. Epigynum.
- Fig. 90. *Tunagyna tuoba* Chamberlin and Ivie, new species. Epigynum, dorsal view.
- Fig. 91. Same. Epigynum, ventral view.
- Fig. 92. Same. Epigynum, lateral view.
- Fig. 93. *Microneta fratrella* (Chamberlin). Epigynum, ventral view.
- Fig. 94. Same. Epigynum, lateral view.
- Fig. 95. Same. Detail of epigynum.
- Fig. 96. *Microneta anopla* Chamberlin and Ivie, new species. Left palpus, ventral view.
- Fig. 97. Same. Left palpus, ectal view.
- Fig. 98. Same. Epigynum.
- Fig. 99. *Microneta protrudens* Chamberlin and Ivie, new species. Epigynum.
- Fig. 100. *Microneta tumoa* Chamberlin and Ivie, new species. Epigynum.



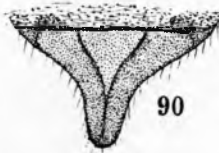
87



88



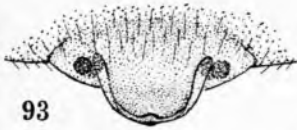
89



90



92



93



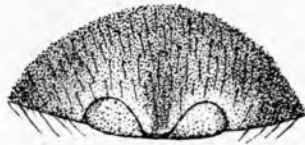
91



95



94



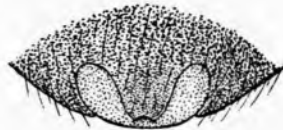
98



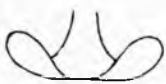
96



97



100



99

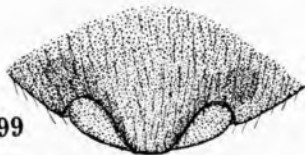


Plate IX

Plate X

- Fig. 101. *Microneta fratrella* (Chamberlin). Left palpus, ventral view.
- Fig. 102. Same. Left palpus, ectal view.
- Fig. 103. *Microneta lophophor* Chamberlin and Ivie, new species. Epigynum, ventral view.
- Fig. 104. Same. Epigynum, dorsal view (expanded).
- Fig. 105. Same. Epigynum, lateral view.
- Fig. 106. Same. Epigynum, lateral view (expanded).
- Fig. 107. *Microneta orines* Chamberlin and Ivie, new species. Epigynum, ventral view.
- Fig. 108. Same. Epigynum, lateral view.
- Fig. 109. *Lepthyphantes furcillifer* Chamberlin and Ivie, new species. Left palpus, ventral view.
- Fig. 110. Same. Left palpus, ectal view.
- Fig. 111. Same. Epigynum, lateral view.
- Fig. 112. Same. Epigynum, antero-ventral view.

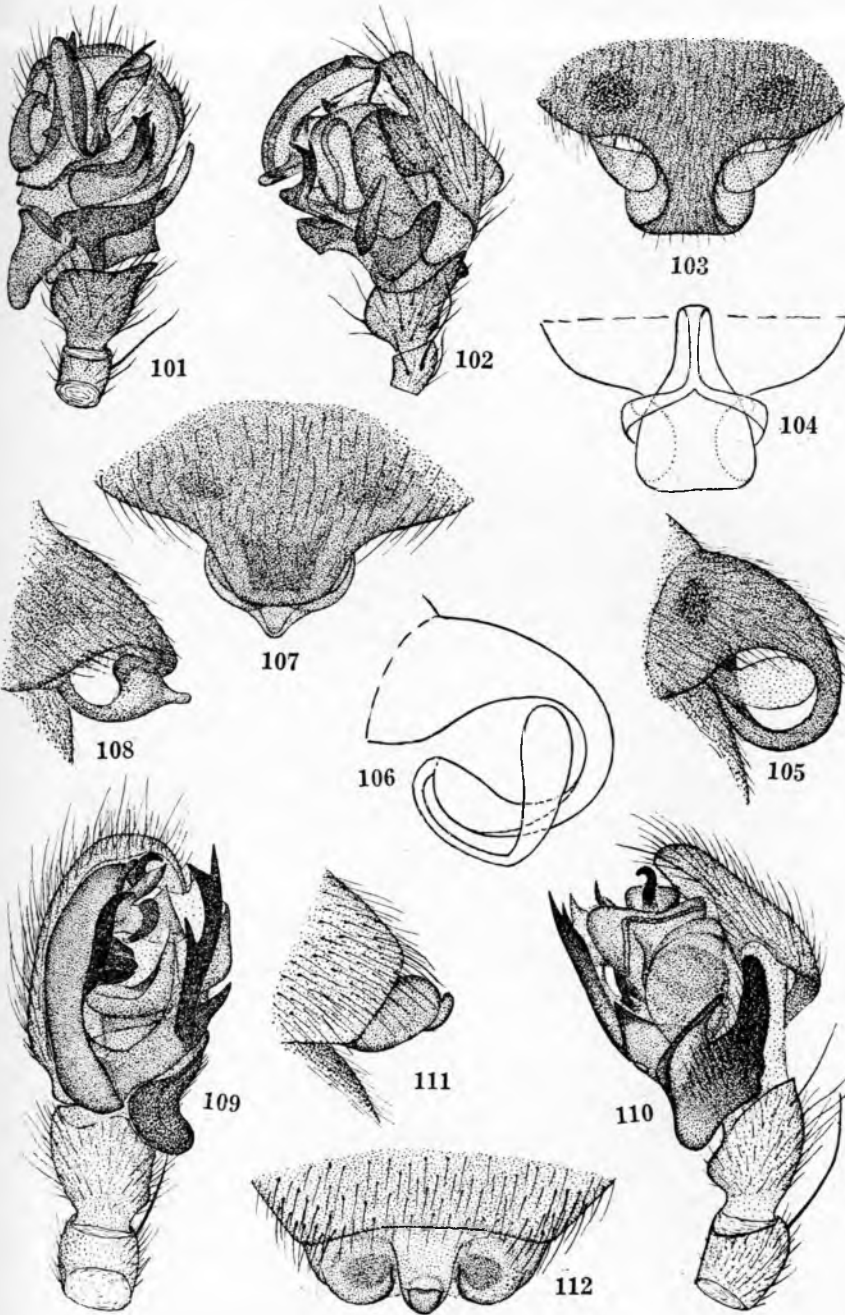


Plate X

Plate XI

- Fig. 113. *Agelena utahana* Chamberlin and Ivie, new species. Left palpus, ectal view.
- Fig. 114. Same. Left palpus, ventral view.
- Fig. 115. Same. Epigynum.
- Fig. 116. *Cicurina intermedia* Chamberlin and Ivie, new species. Left palpus, ectal view.
- Fig. 117. Same. Left palpus, ventral view.
- Fig. 118. Same. Epigynum. (The right side of the drawing shows the usual course of the tubes, the left side shows one of the commoner variations.)

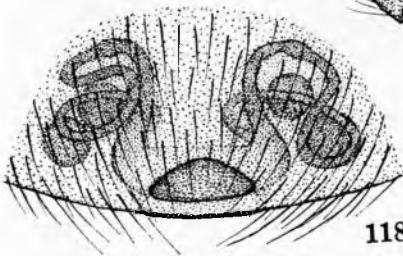
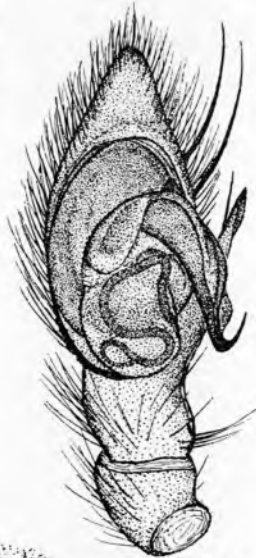
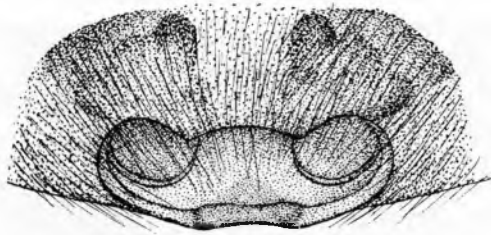
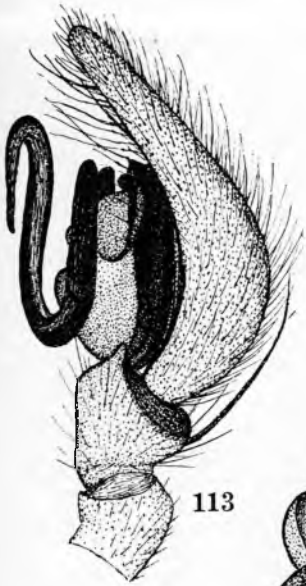


Plate XI

Plate XII

- Fig. 119. *Bathypantes latescens* (Chamberlin). Epigynum, lateral view.
- Fig. 120. Same. Epigynum, ventral view.
- Fig. 121. *Piabuna nanna* Chamberlin and Ivie, new species. Leg I of female.
- Fig. 122. Same. Eyes.
- Fig. 123. Same. Epigynum.
- Fig. 124. *Phrurolithus utus* Chamberlin and Ivie, new species. Epigynum.
- Fig. 125. Same. Left palpus, ventral view.
- Fig. 126. Same. Left palpus, ectal view.
- Fig. 127. *Gnaphosa californica* Banks. Epigynum.
- Fig. 128. *Phidippus asotus* Chamberlin and Ivie, new species. Left palpus, ventral view.
- Fig. 129. Same. Left palpus, ectal view.

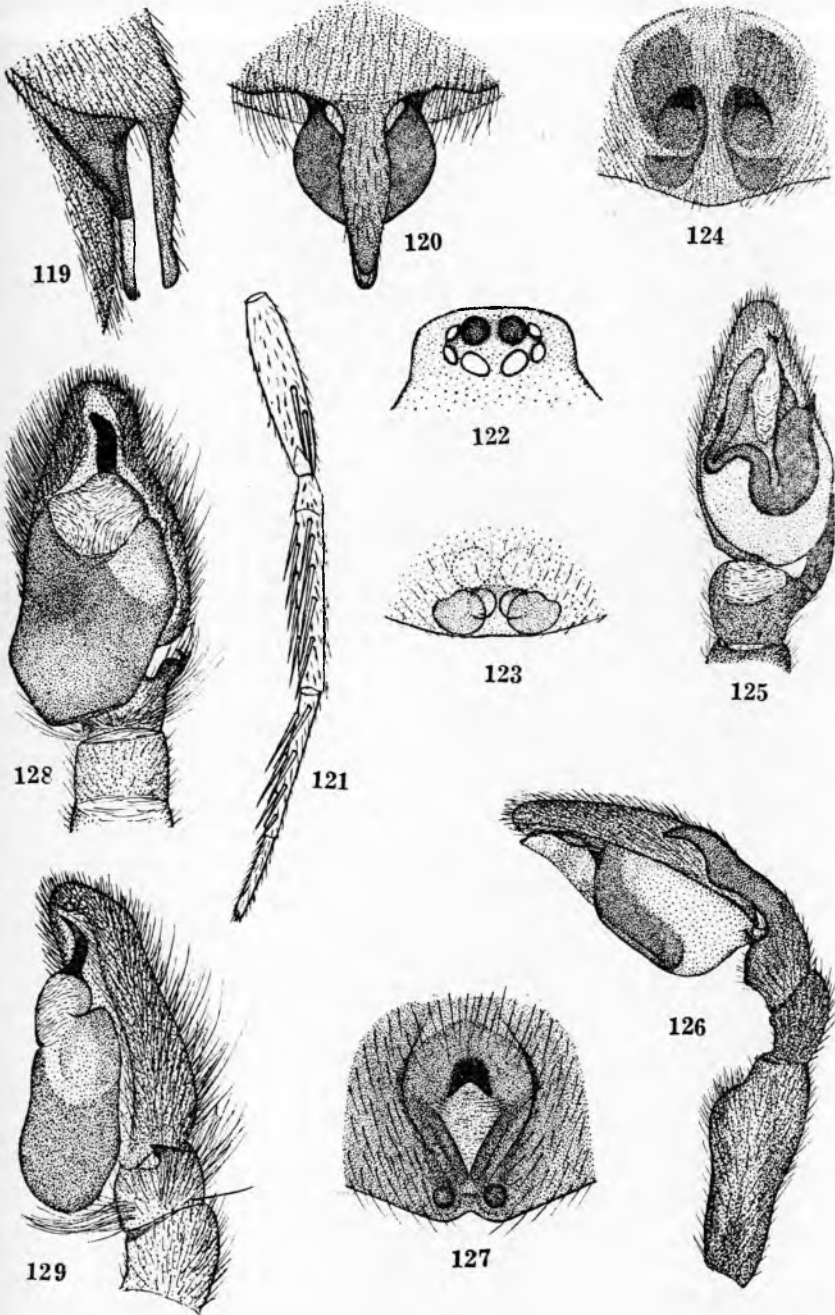


Plate XII