# NEW OF LUTTLE KNOWN TIPULIDE FROM THE PHILIPPINES (DIFTERA), FART II

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# NEW OR LITTLE-KNOWN TIPULIDÆ FROM THE PHILIPPINES (DIPTERA), PART II <sup>1</sup>

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Through the kindness of Prof. Charles Fuller Baker and Mr. Richard C. McGregor, I have now seen a number of additional species of Philippine crane flies; the undescribed forms are described herein. All of the specimens were taken in Luzon with the exception of a magnificent *Pselliophora* from Sibuyan. Except where stated to the contrary, the types are retained in my collection, through the great kindness of the collectors.

#### LIMNOBIINÆ

## Geranomyia (Geranomyia) cornigera Alexander.

Geranomyia cornigera ALEXANDER, Insec. Inscit. Menst. 1 (1913) 137 to 139.

A male specimen from Manila, January 12, 1922 (*McGregor*). The species was described from material taken at Pettit Barracks, Philippines, October 22–23, 1912, and had not been found again until the present record.

## Dicranomyia (Alexandriaria) brevissima sp. nov.

General coloration yellow, the prescutum, scutal lobes, and parts of the postnotum shiny black; wings faintly tinged with brown, clearer before and beyond the darker brown stigma; Rs transverse, very short, crossing the proximal end of the stigma.

Female.-Length, about 3 millimeters; wing, 4.1.

Rostrum yellow, the palpi dark brown. Antennæ with the scapal segments testaceous; flagellar segments pale brown, the basal segments short-oval, thence passing into elongate-oval. Head yellow; yertex between the eyes very narrow.

Pronotum yellow. Mesonotal prescutum shiny black, the humeral triangles light yellow; scutum black, the median area

For Part I see Philip. Journ. Sci. 21 (1922) 373-384.

brown; scutellum brown; postnotal mediotergite brown, the lateral margins black; pleurotergite black. Pleura light yellow. Legs with the coxæ and trochanters pale Halteres broken. yellow; remainder of the legs broken. Wings with a faint brown tinge, extensively clearer before and beyond the stigma which is dark brown, short-oval; veins brown. Venation: Sc short, the distance between the tip of Sc, and origin of Rs approximately three times the length of Rs; Sc, some distance from the tip of Sc1; Rs very short, perfectly transverse, and in alignment with the transverse basal third of the deflection of  $R_{4+5}$ ; at the juncture of these veins, a long spur juts proximad into cell R; Rs thus crosses the extreme proximal end of the stigma and r its distal end, cell 1st R, being entirely included in the stigma; basal deflection of  $R_{4+5}$  angulated and feebly spurred at one-third its length; basal deflection of Cu, approximately at the fork of M.

Abdomen dark brown, the shields of the ovipositor black; sternites obscure yellow, clearer basally.

LUZON, Mount Maquiling (Baker); type, female.

Type returned to Professor Baker.

Lechria philippinensis sp. nov.

General coloration shiny yellow; wings subhyaline, the costal region distinctly infuscated; cell 1st  $M_2$  very long and narrow; vein 2d A short, the cell narrow.

Male .- Length, about 5.8 millimeters; wing, 6.8 to 7.

Rostrum obscure yellow, the palpi brownish black. Antennæ black throughout, of moderate length only. Head dark gray, the anterior triangle slightly more silvery.

Pronotum obscure yellow, darker medially. Mesonotum shiny fulvous yellow, the disk of the scutellum and the center of the mediotergite more infuscated. Pleura shiny fulvous. without pruinosity. Halteres yellow, the knobs brown. Legs with the coxæ yellow; trochanters yellow, the mesal face at apex with a black spot; femora pale brownish testaceous, the tips indistinctly darkened; tibiæ and tarsi darker brown. Wings subhyaline; cells C, Sc, Sc<sub>1</sub> and the stigma distinctly infuscated; veins brownish black. Venation: r-m only a little less than its own length before the fork of Rs; basal section of R<sub>2</sub> only a little shorter than m-cu; cell 1st M<sub>2</sub> elongate, r-m beyond midlength, m-cu slightly before midlength; basal section of M<sub>3</sub> about equal to or longer than the distal section of R<sub>2</sub>; vein 2d A short, cell 2d A being very narrow.

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Abdomen obscure brownish yellow, the incisures of the segments blackened; subterminal segments darkened to form an ill-defined ring; sternites obscure yellow, the basal lateral angles of the segments darkened; hypopygium yellowish.

LUZON, Manila, April, 1923 (*McGregor*); type, male; paratype, male.

According to my key to the species of Lechria,<sup>2</sup> the present species would run to L. bengalensis Brunetti, from which it differs in the diagnostic characters outlined above.

## Eriocera cinereithorax sp. nov.

Head and thorax grayish pruinose; antennal flagellum brownish yellow, the terminal segment brownish black; femora obscure yellow, the tips blackened; wings dark brown, the base of cells C and Sc yellow; a pale yellow crossband before the cord; basal half of cell 1st A yellow; abdominal segments 1 and 6 to 8 black, the intermediate segments orange-yellow with a narrow black lateral line.

Male.—Length, 11 to 12 millimeters; wing, 10.5 to 12.5.

Female.-Length, 15 millimeters; wing, 12.

Rostrum black, pruinose; palpi black. Antennæ rather short, the basal segment dark brown, pruinose; second segment a little paler; flagellar segments brownish yellow, the last segment abruptly brownish black; flagellar segments gradually decreasing in length to the last. Head light gray, the sides of the vertex behind a little darker.

Mesonotal prescutum gray with four ill-defined dark brown stripes, the lateral margin of the sclerite likewise darkened; scutum, scutellum, and postnotum black, less heavily dusted with Pleura black, sparsely and irregularly dusted with ashy gray. gray. Halteres black, the extreme base of the stem a little paler in some specimens. Legs with the coxæ and trochanters black; femora obscure yellow, the tips rather narrowly blackened; tibiæ brown, the tips blackened; tarsi black. Wings dark brown, the prehumeral cell and basal two-thirds of cells C and Sc bright yellow; a conspicuous paler yellow crossband before the cord, lying in cells 1st R1, R, and M; about the basal half of cell 1st A of the same color; veins black, obscure yellow in the flavous areas. Venation: Sc1 ending beyond the origin of  $R_2$ ,  $Sc_2$  opposite two-thirds the length of  $R_{2+3}$ ; r on  $R_1$  nearly four times its length from the tip and on R<sub>2</sub> a little more than

<sup>2</sup> Proc. Roy. Soc. Queensland 32 (1920) 102 and 103.

twice its length beyond the fork; R<sub>2+3</sub> about equal to terminal section of  $R_1$ ; cell  $M_1$  present but very small in the allotype; basal deflection of Cu, a little less than its length beyond the fork of M.

Abdomen with the basal segment black; segments 2 to 5 orange-yellow, the lateral line narrowly blackened; caudal margin of segment 5 and all of segments 6 to 8 black; hypopygium yellowish brown, especially the basistyles. In the female, the basal shields of the long ovipositor are reddish.

LUZON, Ilocos Norte Province, Solsona, December, 1923 (McGregor); type, male; paratype, male; Piddig, November, 1923 (McGregor); allotype, female.

# Erioptera (Baeoura) semicincta sp. nov.

General coloration blue-gray; scutum pale yellow; wings grayish subhyaline, with a very broad but ill-defined and indistinct darker band at the level of the cord.

Male .- Length, about 3 millimeters; wing, 3.3.

Rostrum and palpi brown. Antennæ black throughout, the verticils conspicuous. Head broad, clear blue-gray.

Pronotum, mesonotum, and pleura dark, blue-gray pruinose, the prescutum with three confluent darker stripes, the scutal lobes slightly darkened; scutellum broad, pale yellow, the extreme base at the middle with a dark spot. Halteres short, dark brown. Legs with the coxæ yellowish testaceous; femora brownish yellow, the tips broadly dark brown; remainder of legs dark brown. Wings grayish subhyaline, with a very broad, indistinct, ill-delimited darker band crossing the wing at the level of the cord; veins black. Venation: Sc1 ending about opposite midlength of  $R_{2+3}$ ; r about its length beyond the fork of  $R_{2+3}$ ; basal deflection of  $Cu_1$  a little more than one-half its length beyond the fork of M; petiole of cell M<sub>3</sub> a little longer than the basal deflection of Cu<sub>1</sub>; arculus oblique.

Abdomen dark brown, the intermediate sternites a trifle paler. Luzon, Ilocos Norte Province, Solsona, December, 1923 (McGregor); type, male.

# Teucholabis quinquemaculata sp. nov.

General coloration yellow, the prescutum and scutum with five shiny black markings; wings subhyaline, with the apex and a narrow brown seam along the cord pale brown; Sc, ending beyond midlength of Rs, Sc<sub>2</sub> shortly beyond the origin of Rs; cell 1st M, closed.

## Alexander: Little-known Tipulidæ (Diptera)

#### Male.-Length, 5 millimeters; wing, 6.

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Rostrum slender, about as long as the head, black; palpi black. Antennæ with the scapal segments obscure brownish yellow; flagellar segments oval, dark brown. Head shiny black above, the anterior part of the vertex and the front silvery pubescent; genæ and postgenæ shiny brownish yellow.

Cervical sclerites slender. Pronotum shiny yellow, margined Mesonotal prescutum and scutum shiny yellow around by black. with five conspicuous shiny black areas, the three on the prescutum representing the usual stripes, the lateral ones transversely subcircular and only narrowly separated from one another by a rufous median line; median spot restricted to the cephalic margin of the sclerite; scutal marks occupying the centers of the lobes; scutellum yellow, the caudomedial region black; postnotum black. Pleura black, the sternopleurites and meron yellow, the ventral region of the anepisternum with appressed microscopic gray pubescence. Halteres with the stems black, the extreme bases paler, the knobs broken. Legs with the coxæ yellow, the fore coxæ shiny dark brown; trochanters yellow; remainder of legs broken. Wings subhyaline, the apex faintly darkened; a relatively narrow pale brown band across the wing at the level of the cord, the cephalic end (stigma) darker; veins brown. Venation: Sc, ending beyond midlength of Rs, Sc, far from its tip and lying only a short distance beyond the origin of Rs, the latter feebly sinuous; r less than its length from the tip of R<sub>1</sub> and approximately the same distance from the fork of Rs; cell 2d R, at wing margin very broad; veins  $R_{2+3}$  and  $R_{4+5}$  running generally parallel; cell 1st M, closed, gently widened distally; basal deflection of Cu, about its own length beyond the fork of M; vein 2d A bent rather strongly to anal margin at its tip.

Abdominal tergites black, the basal sternites brown, the terminal sternites variegated with yellow; sixth sternite with a median hairy organ as in the group; hypopygium black.

LUZON, Mount Maquiling (Baker); type, male.

Type returned to Professor Baker.

#### Teucholabis confluenta sp. nov.

General coloration shiny black; pronotum and scutum orangeyellow; knobs of halteres orange; wings whitish subhyaline, with three brown crossbands, the outer one apical and including more than the distal sixth of the wing; cell 1st  $M_2$  open by the atrophy of the outer deflection of  $M_2$ .

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Male.—Length, 5.6 to 5.8 millimeters; wing, 6.

Rostrum elongate, shiny black, about as long as the head; palpi black. Antennæ with the basal segment of the scape brownish black, the remainder of the organ paler brown; flagellar segments oval, the outer segments becoming more elongated. Head black, slightly pruinose, especially anteriorly.

Pronotum orange-yellow, the elongate cervix black. Mesonotal prescutum uniform shiny black, the scutum uniform orangeyellow; scutellum, parascutella, and postnotum black. Pleura shiny black, the propleura orange. Halteres black, the knobs conspicuously orange. Legs with the coxæ and trochanters obscure orange; remainder of the legs broken. Wings whitish subhyaline, with three brown crossbands, including the broad dark apex that includes more than the distal sixth of the entire wing; a broad, nearly uniformly wide band along the cord, a little darker at the stigma, along the caudal margin of the wing connected narrowly with the apical band; a narrower band at the level of the origin of Rs and tip of vein 2d A, a very little widened at vein Cu; veins dark brown. Venation: Sc, ending just before midlength of Rs, Sc<sub>2</sub> shortly before this origin; r a little more than its length from the tip of R<sub>1</sub> and a short distance beyond the fork of Rs; cell 1st M<sub>2</sub> open by the atrophy of the outer deflection of  $M_3$ ; basal deflection of  $Cu_1$  a little less than one-half its length beyond the fork of M.

Abdomen shiny blue-black throughout, including the hypopygium.

LUZON, Mount Maquiling (*Baker*); holotype, male; paratypes, two males.

Styringomyia flavocostalis sp. nov.

General coloration yellow, the anterior part of the mesonotal prescutum, the lateral margins of the scutal lobes, and the postnotum black; wings tinged with pale brown, variegated with darker brown, the costal margin conspicuously light yellow; r-m lying proximad of  $R_{2+3}$ .

Male.-Length, 5.5 millimeters; wing, 3.5.

Rostrum and palpi brown. Antennæ with the basal segments dark brown, paler dorsally; flagellum broken. Head brown, light gray pruinose.

Pronotum and anterior part of mesonotal prescutum dark brown, silvery pruinose, especially in front, the posterior half of the prescutum and anterior half of the scutum obscure yellow; scutal lobes variegated posteriorly and laterally with

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brown; scutellum black, broadly yellowish medially at base; postnotum black. Pleura yellow. Halteres pale, the knobs slightly infuscated. Legs with the coxæ and trochanters yellow; femora and tibiæ yellow, each with narrow dark brown rings, the femoral rings premedial and postmedial, the tibial rings premedial and apical; tarsi pale, darkening at tips. Wings faintly tinged with brown, the costal margin conspicuously bright yellow; brown clouds along the cord and outer end of cell 1st  $M_2$ , along vein Cu, and at tip of vein 2d A; veins pale brown, darker in the infuscated areas, the costa bright yellow. Venation:  $R_{2+3}$  a short distance beyond r-m, which thus connects with the end of Rs; vein 2d A very strongly bent at tip but not spurred.

Abdomen dark brown, the sternites more testaceous; hypopygium yellow. Male hypopygium with the basistyle terminating in a single long spine.

LUZON, Mount Maquiling (*Baker*); holotype, male; paratype, male.

By Edwards' key to the species of *Styringomyia*, the present form runs out at *S. marshalli* Edwards (Mashonaland), a very different fly.

## TIPULINÆ

# Pselliophora bakeri sp. nov.

General coloration orange-yellow; conspicuously variegated with black; all tibiæ with subbasal white rings; wings black; a conspicuous — I-shaped pale yellow mark in the basal cells; basal half of cell 2d A pale yellow; abdomen cross-banded with black.

Female.-Length, about 16 millimeters; wing, 14.8.

Frontal prolongation of head, including the short nasus, yellow; first segment of palpus pale; segments 2 and 3 dark brown, the ends pale, the elongate terminal segment yellow, the distal fourth dark brown. Antennæ 12-segmented; scape yellow; flagellum dark brown. Head yellow; a narrow transverse dark brown line across the vertex immediately behind the antennal bases, very narrowly interrupted by an orange spot at the summit of the vertical tubercle; a conspicuous brown semicircular occipital mark.

Pronotum orange-yellow, conspicuously blackened laterally. Mesonotum orange-yellow, with a handsome black pattern, distributed as follows: Prescutum with three stripes, the lateral stripes very short and lying close to the long medial vitta; scutal

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lobes each with two marks, a small spot on the anterolateral portion and a much larger mark on the posteromesal portion, the latter with the caudal ends confluent across the median line; scutellum black; postnotum with the median sclerite yellow, the posterior portion largely covered by a black triangle, the point of which is directed cephalad; postnotal pleurotergites black with a small yellow area on the dorsomesal margin of each. Pleura orange-yellow, with a conspicuous black area surrounding the wing root, beginning immediately cephalad of this root on the mesepisternum, crossing the epimeron; halteres surrounded by black; sternopleurite narrowly blackened ventrally. yellow, the knobs conspicuously dark brown. Legs with the coxæ black, the midcoxæ very indistinctly spotted with obscure yellow; trochanters yellow; femora black, the bases narrowly yellow; tibiæ black, each with a narrow but conspicuous snowy white ring immediately beyond the base, these rings of approximately equal extent on all the legs; tarsi black. Wings black, mark occupying the disk, the stem lying in parts of both cells R and M for their entire length, the crossbar lying before the cord in cells 1st  $R_1$ , the basal half of 1st  $M_2$ , and the bases of cells  $M_3$ and Cu<sub>1</sub>; basal half of cell 2d A similarly pale yellow; base of cell 1st A and caudal half of Cu grayish; veins black, yellow in the flavous areas. Venation: r-m very short; cell M<sub>1</sub> rather narrowly sessile; m-cu short but distinct.

Abdomen orange, conspicuously cross-banded with black; tergite 1 black; a broad band beyond midlength of tergite 2, subbasal bands on tergites 3 to 8, these becoming broader and more conspicuous on the outer segments, wider at the lateral margins than on the disk. Ovipositor deep horn color, the bases black.

SIBUYAN (Baker); type, female.

This beautiful Pselliophora is named in honor of Prof. C. F. Baker, to whom I am indebted for many favors in the past.

# Pselliophora mcgregori sp. nov.

Male.-Length, 11.5 to 12 millimeters; wing, 12.

Female.-Length, 17 millimeters; wing, 14.5.

Generally similar to P. idalia (Osten-Sacken).

Frontal prolongation of head with a short nasus. Median area of pronotum yellow. Mesonotum velvety black, the usual stripes confluent, the humeral region and broad lateral margins broadly pale yellow; postnotal mediotergite black with a trans-

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verse yellow band before the base. A conspicuous yellow spot on the meron. Halteres dark brown, the base of the stem yellow. Legs black, only the extreme bases of the fore femora a trifle paler; all tibiæ with a snowy white ring immediately beyond the base. Wings with the ground color black; cell 2d A pale; in the female, cells R, M, and 1st A with pale linear streaks: extreme base of wing pale. Cell M, sessile (male) or short-petiolate (female). Abdomen black; segment 2 with more than the basal half pale yellow; tergites 2 to 5 and sternites 3 to 8 with the caudal margins of the segments conspicuously and broadly banded with yellow; on sternite 8 the yellow color includes more than the apical half of the conspicuously project-Hypopygium elongate-cylindrical, tilted at an ing median lobe. angle to the remainder of the abdomen. In the female, the yellow abdominal markings include, besides the marks on segment 2, narrow rings on tergites 3 and 4 and on sternites 2 to 7, becoming smaller and subobsolete outwardly.

LUZON, Ilocos Norte Province, Bangui, November, 1923 (*Mc-Gregor*); holotype, male; allotype, female; paratype, male.

This handsome crane fly is dedicated to Mr. Richard C. McGregor, as an appreciation of his valuable coöperation in making known the very interesting tipulid fauna of the Philippines.

#### Tipulodina luzonica sp. nov.

27.1

Antennæ of male relatively long; median prescutal stripe conspicuous; fore femora with a pale subterminal ring; fore and middle tibiæ with a snowy white subterminal ring; posterior tibiæ with a subbasal and a subterminal white ring; basitarsi black, only the narrow tips white; wings clear, the center of the cord not or scarcely seamed with darker; no brown cloud near midlength of cell M; spinous dististyle of male hypopygium small and inconspicuous.

Male.—Length, 14 to 15 millimeters; wing, 14 to 15.

Female.-Length, 18 to 19 millimeters; wing, 14.

Frontal prolongation of head pale above, the sides dark brown; nasus very long and slender, pale. Antennæ of male elongate, if bent backward extending to beyond the base of the abdomen; basal segment testaceous, the tip dark brown; second segment brownish testaceous; flagellum black, the incisures of the segments indistinctly whitish. Head dark brownish gray, the anterior part of vertex and the genæ pale whitish ocherous, the vertex with a dusky area on either side behind the eyes.

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Pronotum broadly dark brown medially, the sides buffy yel-Mesonotal prescutum yellow, especially the humeral relow. gion, with a very broad and conspicuous dark brown stripe that is further divided by a capillary darker brown vitta; lateral stripes small and relatively ill defined; scutal lobes obscure yellow, each with two large, dark brown areas; scutellum brownish gray, the parascutella brown; postnotum dark gray. Pleura pale yellow, with a sparse silvery white bloom; postnotal pleurotergite with an oval, silvery area that is bordered, except dorsally, by a conspicuous brown mark immediately before the halteres; a small brown spot immediately ventrad of the metaspiracle. Halteres dark brown, the base of the stem narrowly yellow. Legs with the coxæ pale, whitish pruinose, the posterior coxæ with a small apical brown spot on caudal face; trochanters testaceous yellow, with a brown spot on mesal face of each; fore femora brownish testaceous, brighter basally, with a conspicuous yellowish white ring before the narrower black tip; midfemora bright brown, the tips narrowly blackened; posterior femora brownish testaceous, the tips broadly and conspicuously blackened; fore and middle tibiæ black with a broad, snowy white ring before the slightly broader black apex; posterior tibiæ with a similar white ring and an additional narrower subbasal white ring; basitarsi black, the apex of each narrowly white; remainder of tarsi snowy white, excepting the infuscated terminal segment. Wings clear whitish hyaline, highly iridescent; cell Sc brownish black; stigma oval, dark brown, sending a seam along the anterior cord; Cu, Cu<sub>2</sub>, and basal deflection of Cu, narrowly bordered with brown; wing apex brown, including the apex of cell R<sub>2</sub>; the distal two-fifths of R<sub>3</sub> (the latter inclosing a small subhyaline droplet); about the same extent of cell R<sub>5</sub>; veins M<sub>1</sub> and M<sub>2</sub> seamed with brown, especially the former, the center of cell M1 remaining broadly pale; veins slender, brownish black, very distinct. Venation: Basal deflection of R<sub>4+5</sub> distinct, nearly as long as r-m; cell 1st M<sub>2</sub> large, the fusion of M<sub>s</sub> and Cu<sub>1</sub> equal to or greater than the basal section of M<sub>3</sub> alone; m and petiole of cell M<sub>1</sub> subequal, the latter cell very short and broad; vein 2d A very short, cell 2d A being thus unusually narrow. In the females, the cord and vein  $M_{1+2}$  are narrowly seamed with brown.

Abdominal tergites bright brown, the lateral margins narrowly, the subcaudal region of the segments rather broadly, blackened; caudal margins of the segments narrowly yellowish; base of tergite 3, and more narrowly on the succeeding tergites,

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glabrous, brownish gray; the shorter subterminal tergites are largely black with the bases, lateral margins, and basal lateral angles obscure yellow, more or less pruinose; basal sternites obscure yellow, the subterminal segments gray; hypopygium and eighth sternite yellow to ocherous fulvous. Male hypopygium small, the tergal region very narrow; chitinized hooks of the dististyle small and relatively insignificant, directed dorsad, the acute black tips cephalad.

LUZON, Manila, August, 1923 (*McGregor*); holotype, male; allotype, female; and fourteen paratype males and females.

This handsome fly belongs to the group of the genus with elongate antennæ in the male sex; with no dark spot near midlength of cell M of the wings; and with the male hypopygium small and without conspicuous appendages. This is undoubtedly the same fly that was referred to T. pedata (Wiedemann) by Osten-Sacken,<sup>3</sup> but is certainly not the true pedata. It may likewise be the species referred by Bezzi \* to Tipulodina cinctipes (de Meijere), described from Borneo; the latter species is very distinct in the coloration of the basitarsi. The genus is a very characteristic one in the Oriental fauna but is rather difficult to differentiate from Tipula on characters of the adult flies. The pupæ differ widely from species of Tipula, however, and there is but little doubt of the generic validity of the group. All of the species known pertain to the Ethiopian and Oriental faunæ, although two, Tipulodina joana (Alexander) and T. nipponica (Alexander), occur in the lower regions of Japan as far north as Tokyo.

<sup>a</sup> Berl. Ent. Zeitschr. 26 (1882) 92. <sup>c</sup> Philip. Journ. Sci. § D 12 (1917) 111 and 112. 208379-6