

Revision of the Homopterous genera Cosmoscarta and Phymatostetha, with descriptions of new species: by ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

PLATE VIII.

The Genus *Cercopis* of Walker (*nec Fabricius*) has been very rightly divided by Dr. Stal into the two groups *Cosmoscarta* and *Phymatostetha*, characterized at a glance by the form of the thorax. The following is a revised list of the species at present known to science.

GENUS COSMOSCARTA. *Stal.*

1. *C. tricolor.*

Cercopis tricolor, St. Fargeau and Serville, Enc. Méth. X., p. 604 (1827); Burmeister, Hand. Ent. II., 1, p. 124, n. 1 (1835).

Java. B.M.

2. *C. Siamensis*, *n. sp.*, *fig. 1.*

Allied to *C. tricolor*, but in the form of the thorax more like *C. divisa*. Head and thorax, basi-costal third of corium, and basal fourth of clavus reddish testaceous; wings pale fuscous, the basi-costal veins and base reddish; abdomen above and below blue-black; pectus and legs piceous, tibiæ of hind pair of legs armed with a strong spine. Length 18 mill.; expanse of tegmina 42.

Cambodia (*Mouhot*). Two specimens. B.M.

var. Entire basal third of tegmina reddish testaceous.

Laos (*Mouhot*). Two specimens. B.M.

3. *C. basinotata*, *n. sp.*, *fig 2.*

Form of *C. tricolor*; differs chiefly in having the tegmina crossed at base by a patch of six red spots (that on the

clavus being more or less bifid) instead of the pale testaceous band; and in the narrower and interrupted red bands margining the segments on dorsum of abdomen.

Length 21 mill.; expanse of tegmina 47.

Sarawak (*Wallace*). Five specimens. B.M.

This is certainly distinct from *C. tricolor*, with which, however, it was formerly associated in our collection.

4. *C. fuscipennis.*

Cercopis fuscipennis, St. Fargeau and Serville, Enc. Méth. X., p. 605, n. 6 (1827).

Cercopis plana, Walker, List Homopt. Ins. III., p. 653, n. 10 (1851).

Java and Penang. B.M.

5. *C. nigripennis.*

Cercopis nigripennis, Fabricius, Syst. Rhyng., p. 90, n. 8 (1803).

Cosmoscarta nigripennis, Stal, Hemipt. Fabric., p. 11, n. 2 (1869).

Cercopis fulvicollis, Walker, List Homopt. Ins. III., p. 660, n. 36 (1851).

This is quite distinct from the *C. nigripennis* of Mr. Walker's list.

Java. B.M.

6. *C. megamera*, n. sp., fig. 3.

Cercopis nigripennis, Walker (nec Fabric.) List. Homopt. Ins. III., p. 653, n. 11 (1851).

Form and general coloration of *C. fuscipennis* (*C. plana*, Wlk.), but at once distinguished by its much greater size, black legs, the narrower reddish costal edge, and less pronounced basal reddish diffusion on tegmina; the colour of the thorax and head also vary from piceous to castaneous and bright testaceous. Length 16-19 mill.; expanse of tegmina 39-47.

Silhet; Penang; Laos (*Mouhot*); Hong Kong (*Bowring*). Fifteen specimens. B.M.

7. *C. rufimargo.*

Cercopis rufimargo, Walker, Journ. Linn. Soc. vol. X., p. 277, n. 293 (1867).

Makian, Celebes (*Wallace*). Type. B.M.

8. *C. funeralis*, *n. sp.*, fig. 4.

Form of *C. fuscipennis*, but thorax with a distinct central ridge; head and thorax dark castaneous; scutellum piceous; dorsum of abdomen reddish-orange; tegmina piceous, almost black; wings fuscous; pectus black; venter and legs red; segments transversely banded and laterally spotted with black; proximal extremities of femora blackish. Length 20 mill.; expanse of tegmina 41.

India. Type. B.M.

9. *C. Wallacei*, *n. sp.*, fig. 5.

Form of *C. tricolor*; less coarsely rugulose; ocelli very large; head, thorax, and tegmina reddish piceous, covered with testaceous pubescence; costa and base of tegmina (especially the veins) rufescent; wings fuscous red at base; abdomen and legs red; venter blackish in the centre. Length 15 mill.; expanse of tegmina 33.

Dorey (*Wallace*). Type. B.M.

10. *C. flaccida*, *n. sp.*, fig. 6.

Form of preceding species; head testaceous; thorax dull pale testaceous obsoletely spotted with dusky; centre of front margin dark castaneous with a large black impressed spot on each side; scutellum, abdomen, pectus and legs dark chocolate brown; tegmina dull reddish-brown; wings pale brown. Length 15 mill.: expanse of tegmina 37.

Java. Type. B.M.

11. *C. costalis.*

Cercopis costalis, Walker, List Homopt. Ins. III., p. 651, n. 2 (1851).

Philippines (*Cuming*). Type. B.M.

Possibly a variety, but more probably a local form of *C. theora* of White.

12. *C. theora.*

Cercopis theora, White, Ann. and Mag. Nat. Hist. XV., p. 35 (1845).

Philippines (*Cuming*). Type. B.M.

13. *C. proserpina.*

Cercopis proserpina, White, Ann. and Mag. Nat. Hist. XV., p. 35 (1845).

Philippines (*Cuming*). Type. B.M.

If this be considered a mere variety of *C. theora*, all idea of separating species by pattern must be given up at once.

14. *C. platonica*, n. sp., fig. 7.

Allied to *C. proserpina*. Head and thorax dirty testaceous; scutellum black, piceous behind; abdomen grey-brown, becoming somewhat testaceous towards anus; pectus and venter black; femora and coxae of legs blackish piceous; tibiæ and tarsi dark testaceous, golden pubescent; tegmina black; costal margin and apex dull fulvous; base and a basi-subcostal pyriform streak; an irregular transverse trimacular band crossing first third of tegmina, a subcostal spot at end of second third, and the veins on second third testaceous; wings fuscous, costa lutescent, base rufescent. Length 17 mill; expanse of tegmina 44.

Corea (*Arthur Adams*). Type. B.M.

Very like *C. proserpina*, but smaller, the tegmina differently marked, the clavus, instead of being entirely bright fulvous, has an oval spot (the third of the transverse series) in its centre.

15. *C. Daphne.*

Cercopis Daphne, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 147, n. 5 (1865).

Manilla (*Stal*).

Seems allied to *C. proserpina*, but, according to Stal, very nearly allied to *C. Charon*.

16. *C. Charon.*

Cercopis Charon, White, Ann. and Mag. Nat. Hist. XV., p. 35 (1845).

Philippines (*Cuming*) ; Sarawak (*Wallace*). Type. B.M.

Allied to, but smaller and narrower than *C. viridans* of Guérin ; the hemelytra duller in colour, with costal margin less arched.

17. *C. viridans.*

Cercopis viridans, Guérin in Bélanger's Voyage Ind. Or. Atlas, pl. 3, figs. 7, 7a (1834).

Cercopis latissima, Walker, List Homopt. Ins. III., p. 655, n. 20 (1851).

Java. B.M.

18. *C. rugulosa.*

Cercopis rugulosa, Walker, Journ. Linn. Soc. Zool., vol. I., p. 95, n. 54 (1857).

Mt. Ophir (*Wallace*). Type. B.M.

19. *C. rufipes.*

Cosmoscarta rufipes, Stal. Hemipt. Ins. Phil. in Öfvers. Kongl. Vetensk. Akad. Förh., p. 719, n. 4 (1870).

Philippines (*Stal*).

Allied to *C. Charon*.

20. *C. rutilans*, *n. sp.*, fig. 8.

Head, legs, pectus, venter, and tegmina piceous ; thorax shining black with dark castaneous margin ; scutellum and dorsum of abdomen piceous, with violet metallic shot ; wings hyaline, slightly fuscous, more particularly at costa and abdominal margin. Length 14 mill. ; expanse of tegmina 32.

Sarawak (*Wallace*). Type. B.M.

Allied to *C. rugulosa* and *C. cyaneiventris*.

21. *C. cyaneiventris.*

Cercopis cyaneiventris, Walker, List Homopt. Ins. III., p. 661, n. 37 (1851).

Java. Type. B.M.

22. *C. Malaya.*

Cercopis Malaya, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 147, n. 7 (1865).

Malacca (*Stal*).

Seems to approach *C. xanthorrhina* in markings, but said to be more nearly allied to *C. cyaneiventris*.

23. *C. vilos*, *n. sp.*, fig. 9.

Very close to *C. divisa*, much smaller, the apical third of tegmina not brown; the basal spots less numerous*, interrupted, and of a bright orange colour; costal margin dark castaneous; dorsum of abdomen red; venter red, transversely banded with black; legs fulvous, femora of second and third pairs blackish; wings slightly fuscous. Length 13 mill.; expanse of tegmina 32.

Dorey (*Wallace*). Type. B.M.

24. *C. consequens*, *n. sp.*, fig. 10.

Allied to *C. vilos*. Head, thorax, pectus, scutellum, dorsum, and venter of abdomen black; abdomen with the segments at the sides and on venter narrowly margined with reddish; anus red; legs red; tegmina piceous, crossed near the base by three orange spots, one subcostal, subovate; one subtriangular trifid, immediately below it; the third subovate, on margin of clavus; costal edge dark castaneous; base slightly rufous; wings fuscous, red at base. Length 14 mill.; expanse of tegmina 36.

New Guinea (*Wallace*). Type. B.M.

25. *C. ferociens*, *n. sp.*, fig. 11.

Allied to the preceding; from which it differs in its longer and paler tegmina with two scarlet spots near base, one subcostal, the other on clavus; the scutellum paler and more elongate; tibiæ of first and second pairs of legs and

* In *C. divisa*, they form a transverse band as in *C. tricolor*.

femora of third pair piceous. Length 16 mill.; expanse of tegmina 39.

Mysol (*Wallace*). Type. B.M.

This species in some respects approaches *C. egens*.

26. *C. divisa.*

Cercopis divisa, Walker, Journ. Linn. Soc., vol. X., p. 279, n. 299 (1867).

New Guinea (*Wallace*). Type. B.M.

27. *C. Australis*, n. sp., fig. 12.

Cercopis Urvillei, Walker (nec. St. Fargeau), List Homopt. Ins. Suppl., p. 170 (1858).

Differs from *C. Urvillei* in the purplish black dorsum of abdomen, the blacker thorax and the orange area of tegmina being confined to the basal third and without any indication of a transverse brown band. Length 20 mill.; expanse of tegmina 35.

Australia, and local form Dorey (*Wallace*). B.M.

Specimens from Dorey are of a darker colour and have the outline of the orange area of tegmina undulated.

28. *C. xanthorhina.*

Cercopis xanthorhina, Boisduval, Voy. de l'Astrolabe, Ent., p. 618; pl. 10, fig. 10 (1832—35).

Dorey (*Wallace*). B.M.

Allied to *C. Urvillei*. Speaking of the hemelytra M. Boisduval says—"On voit encore au milieu de chaque élytre, près du bord latéral, un petit point rouge allongé presque nul." This spot is absent in the figure: it occurs on one of our specimens.

29. *C. Urvillei.*

Cercopis Urvillei, St. Fargeau and Serville, Enc. Méth. X., p. 605, n. 3 (1827); Guérin, Icon. Règne Anim. Ins., pl. 59, fig. 8 (1829—1844).

Cercopis nasalis, Walker, Journ. Linn. Soc., vol. X., p. 283, n. 311 (1867).

Offak (St. Fargeau); Aru (*Wallace*). B.M.

The transverse black bar crossing the orange basal half of the hemelytra is but imperfectly indicated in the figure by Guérin.

30. *C. rubrifera.*

Cercopis rubrifera, Walker, Journ. Linn. Soc., vol. X, p. 283, n. 309 (1867).

Aru (Wallace). B.M.

Nearly allied to *C. Urvillei*, from which it may be distinguished by the carmine basal half of the hemelytra, its angular outer edge, more complete transverse black bar, and blackened nervures; the abdomen is also bright red.

31. *C. fervescens*, fig. 13.

Nearly allied to *C. inexacta*; differs in the greater width of the thorax; the jet-black colour of the vertex of head and the thorax, the black scutellum, the blacker tegmina and the much larger scarlet spots towards base of tegmina. Length 16 mill.; expanse of tegmina 42.

Menado (Wallace). Two specimens. B.M.

Evidently a local representative of *C. inexacta* from Makian; and somewhat allied to *C. ferociens*.

32. *C. inexacta.*

Cercopis inexacta, Walker, Journ. Linn. Soc., vol. X., p. 280, n. 301 (1867).

Makian and Macassar (Wallace). Type. B.M.

Walker gives the locality as Tondano, but the type has a ticket bearing the abbreviation "Mak."

33. *C. sexmaculata.*

Cosmoscarta sexmaculata, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 719, n. 5 (1870).

Philippines (Stal).

34. *C. incanescens*, n. sp., figs. 14, 14a.

Cercopis undulifera (nomen bis lectum), Walker, Journ. Linn. Soc. vol. X., p. 276, n. 291 (1867).

New Guinea (*Wallace*). Type. B.M.

The abdomen above purplish black; wings piceous. These characters are not noticed in Mr. Walker's description.

35. *C. tetraspila.*

Cercopis tetraspila, Walker, Journ. Linn. Soc., vol. X., p. 277, n. 292 (1867).

Ternate (*Wallace*). B.M.

36. *C. sequens.*

Cercopis sequens, Walker, Journ. Linn. Soc., vol. X., p. 285, n. 316 (1867).

New Guinea (*Wallace*). Type. B.M.

37. *C. basistriga.*

Cercopis basistriga, Walker, Journ. Linn. Soc., vol. X., p. 280, n. 302 (1867).

Mysol (*Wallace*). Type. B.M.

As in other instances, Mr. Walker has given Morty, instead of Mysol, as the habitat of the species.

38. *C. maculifascia.*

Cercopis maculifascia, Walker, Journ. Linn. Soc., vol. X., p. 279, n. 298 (1867).

Mysol [not Morty] (*Wallace*). Type. B.M.

39. *C. zonata*, n. sp., fig. 15.

Cercopis decisa (nomen bis lectum), Walker, Journ. Linn. Soc., vol. X., p. 278, n. 296 (1867).

Mysol [not Morty] (*Wallace*). Two specimens. B.M.

Basal half of tegmina in type castaneous; wings fuscous; abdomen above glossy black, pectus black, thorax sometimes black.

40. *C. perstrigata*, n. sp., fig. 16.

Head castaneous, vertex piceous; thorax black, testaceous pubescent, with castaneous margin; scutellum piceous, paler behind: abdomen black; pectus dark olivaceous;

legs, femora piceous, tibiæ castaneous, tarsi testaceous; tegmina piceous with central transverse irregular interrupted testaceous band; wings fuscescent. Length 17 mill.; expanse of tegmina 44.

New Guinea (*Wallace*). Type. B.M.

Allied to *C. zonata* and *C. convexa*.

41. *C. convexa*.

Cercopis convexa, Walker, Journ. Linn. Soc., vol. X., p. 278, n. 297 (1867).

New Guinea (*Wallace*). Type. B.M.

42. *C. horrifica*, n. sp., fig. 17.

Cercopis unifascia (nomen bis lectum), Walker, Journ. Linn. Soc., vol. X., p. 278, n. 295 (1867).

New Guinea. Type. B.M.

Wings fuscous (character not mentioned by Mr. Walker).

43. *C. sulcata*.

Cercopis sulcata, Walker, Journ. Linn. Soc., vol. X., p. 281, n. 304 (1867).

Tondano (*Wallace*). Type. B.M.

Allied to *C. Urvillei*, but at once distinguishable by its black head. Attached to the type I found the (? Ms.) name *C. balteata*, Walker.

44. *C. pulchella*, n. sp.

Allied to *C. sulcata* and *C. heros*. Head, thorax, and pectus shining black; abdomen, legs, and tegmina scarlet; the latter with a blackish costal spot just before the middle of the margin; apical third dark piceous, inner edge undulated. Length 10 mill.; expanse of tegmina 24.

Laos (*Mouhot*). Type. B.M.

45. *C. heros*.

Cercopis heros, Fabricius, Syst. Rhyng., p. 89, n. 3 (1803).

Cosmoscarta heros, Stål, Hemipt. Fabric., p. 11, n. 1 (1869).

Cercopis abdominalis, Walker, List Homopt. Ins. III., p. 654, n. 18 (1851).

Hong Kong (*Bowring*) ; China (*Lay*). B.M.

46. *C. chrysomelæna*, n. sp.

Nearly allied to *C. heros*. Thorax distinctly wider, purplish black ; legs with the exception of the terminal tarsal joints entirely orange ; abdomen orange, venter transversely banded with black ; tegmina black, with basal third, and a regular curved band at end of second third, orange ; wings fuscescent, with base slightly orange. Length 10 mill. ; expanse of tegmina 29.

Shanghai (*Fortune*) : Laos (*Mouhot*). B.M.

The Siamese example is larger than the Chinese and has the tarsi completely orange.

47. *C. discrepans*.

Cercopis discrepans, Walker, Journ. Linn. Soc. Zool., vol. I., p. 95, n. 57 (1857).

Cercopis obtusa, Walker, Journ. Linn. Soc. X., p. 287, n. 325 (1867).

Timor and Singapore (*Wallace*). Type. B.M.

48. *C. egens*.

Cercopis egens, Walker, List Homopt. Ins. Suppl., p. 171 (1858).

India ; N. India (*Hooker*). Type. B.M.

var. *fascia coccinea distincta*, paululum angustiore.

Siam (*Mouhot*), Penang and India (*Bowring*). B.M.

49. *C. ducens*.

Cercopis ducens, Walker, List Homopt. Ins. III., p. 655, n. 22 (1851) ; Stal, Ann. Soc. Ent. France, 4, Sér. V., p. 188 (1865).

Silhet. Type. B.M.

50. *C. concisa.*

Cercopis concisa, Walker, Journ. Linn. Soc., vol. X., p. 286, n. 321 (1867).

Tondano and Macassar (*Wallace*). Type. B.M.

51. *C. bivittata.*

Cercopis bivittata, St. Fargeau and Serville, Enc. Méth. X., p. 605, n. 4 (1827).

Cercopis flavifascia, Walker, List Homopt. Ins. III., p. 654, n. 16 (1851).

Java. B.M.

52. *C. feralis*, n. sp.

Allied to *C. bivittata*; larger, broader, not æneous, with narrower bands; head, thorax, pectus, abdomen, legs, and tegmina shining black; the latter crossed by two narrow pale testaceous bands (their edges irregular), dividing the tegmina into three nearly equal parts; wings fuscescent, black at base. Length 20 mill.; expanse of tegmina 48.

Sarawak (*Wallace*). Type. B.M.

53. *C. callizona*, n. sp.

Cercopis semicincta (nomen bis lectum) Walker, Journ. Linn. Soc., vol. X., p. 285, n. 317 (1867).

Makian and Macassar (*Wallace*). Type. B.M.

54. *C. laticincta.*

Cercopis laticincta, Walker, Journ. Linn. Soc., vol. X., p. 285, n. 318 (1867).

Batchian (*Wallace*). Type. B.M.

55. *C. amabilis.*

Cercopis amabilis, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 146, n. 4 (1865).

New Guinea (*Stal*).

Seems allied to *C. laticincta* of Walker.

56. *C. angulifera.*

Cercopis angulifera, Walker, Journ. Linn. Soc., vol. X., p. 286, n. 319 (1867).

Batchian (Wallace). Type. B.M.

57. *C. intermedia.*

Cercopis intermedia, Walker, Journ. Linn. Soc., vol. X., p. 277, n. 294 (1867).

Batchian (Wallace). Type. B.M.

58. *C. Lydia.*

Cercopis Lydia, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 149, n. 12 (1865).

E. India. B.M.

A small species, allied to *C. angulifera*.

59. *C. circe.*

Cercopis circe, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 145 (1865).

Cercopis biangulata, Walker, Journ. Linn. Soc. X., p. 280, n. 303 (1867).

Tondano and Macassar (Wallace). B.M.

Allied to *C. perspicillaris* and to *C. nexa*, but with the hemelytra elongated as in *C. rufimargo* and allies.

60. *C. delineata.*

Cercopis delineata, Walker, Journ. Linn. Soc. Zool., vol. I., p. 165, n. 132 (1857).

Sarawak (Wallace). Type. B.M.

61. *C. trigona.*

Cercopis trigona, Walker, List Homopt. Ins. III., p. 660, n. 34 (1851).

Cercopis amplicollis, Walker, l. c. Suppl., p. 175 (1858).

N. India and Hong Kong. Types. B.M.

62. *C. exultans.*

Cercopis exultans, Walker, List Homopt. Ins. Suppl., p. 171 (1858).

N. China (*Fortune*). Type. B.M.

Allied to *C. bispecularis* and *C. trigona*.

63. *C. decisa.*

Cercopis decisa, Walker, List Homopt. Ins. Suppl., p. 175 (1858).

Darjeeling. Type. B.M.

A second species is described under this name in the Journal of the Linnæan Society X., p. 278, n. 296 (1867).

64. *C. undata.*

Cercopis undata, Walker, List Homopt. Ins. III., p. 659, n. 33 (1851); Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 148, n. 8 (1865).

Silhet (*Stainsforth*); N. India. Type. B.M.

65. *C. flexifascia.*

Cercopis flexifascia, Walker, Journ. Linn. Soc., vol. X., p. 286, n. 320 (1867).

var. *Cercopis subapicalis*, Walker, l. c., p. 287, n. 322 (1867).

Sumatra (*Wallace*). Types. B.M.

In the variety *C. subapicalis* the basal and submedian transverse bands of the hemelytra are obsolete.

66. *C. bimacula.*

Cercopis bimacula, Walker, List Homopt. Ins. III., p. 656, n. 25 (1851).

Cercopis sumtuosa, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 249, n. 1 (1854).

Hong Kong (*Bowring*). Type. B.M.

67. *C. bispecularis.*

Cercopis bispecularis, Walker, List Homopt. Ins. III., p. 656, n. 24 (1851).

Almorah (Warwick); Penang (Bowring). Type. B.M.

68. *C. irresoluta.*

Cercopis irresoluta, Walker, Ins. Saunders. Homopt., p. 85 (1858).

Java. Type. B.M.

More nearly allied to *C. bispecularis* than to any other species.

69. *C. dorsimacula.*

Cercopis dorsimacula, Walker, List Homopt. Ins. III., p. 658, n. 31 (1851).

Cercopis quadrimaculata, Walker, l. c., p. 661, n. 38 (1851).

N. Bengal, N. India, Cahar. Types. B.M.

Mr. Walker describes a second species under the same name (List, p. 663, n. 41); he however subsequently describes the latter as a new species under the name of *C. tomentosa* (Journ. Linn. Soc. X., p. 284).

70. *C. fictilis*, n. sp.

Closely allied to *C. dorsimacula*, but differs in its usually smaller size, narrower thorax, duller and more uniform colouring, and much smaller and more regularly uniform black spots. Length 12 mill.: expanse of tegmina 32.

Penang and India (Bowring); "Silhet, E. Indies" [sic] (Bowring). B.M.

This is probably the southern representative of *C. dorsimacula*; the single example, supposed to be from Silhet, was most probably taken with the other Indian specimens.

71. *C. bifasciata.*

Cercopis bifasciata, Guérin, Belanger's Voy., p. 502 (1834).

Cercopis septempunctata, Walker, List Homopt. Ins. III., p. 659, n. 32 (1851).

Cercopis fulva, Walker, l. c., p. 663, n. 43 (1851).

Java (Guérin); Hab. —? Types. B.M.

72. *C. guttata.*

Cercopis guttata, St. Fargeau and Serville, Enc. Méth. X., p. 605, n. 7 (1825).

Cercopis semicincta, Walker, List Homopt. Ins. III., p. 657, n. 28 (1851).

Java. Type. B.M.

73. *C. concolor.*

Cercopis concolor, Walker, List Homopt. Ins. III., p. 661, n. 36 (1851).

Cercopis proxima, Walker, l. c., p. 664, n. 44 (1851).

Java. Types. B.M.

Very close to the preceding species.

74. *C. dorsalis.*

Cercopis dorsalis, Walker, List Homopt. Ins. III., p. 658, n. 30 (1851).

Cercopis connexa, Walker, l. c., p. 663, n. 42 (1851).

Cercopis ramosa, Walker, Ins. Saunders. Homopt., p. 85 (1858).

N. India. Types. B.M.

75. *C. lacerata.*

Cercopis lacerata, Walker, Journ. Linn. Soc., vol. X., p. 287, n. 324 (1867).

Timor (Wallace). Type. B.M.

Allied to *C. dorsalis* and *C. obtusa*.

76. *C. rotundata.*

Cercopis rotundata, Walker, List Homopt. Ins. Suppl., p. 174 (1858); Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 149, n. 11 (1865).

Laos, Siam (Mouhot); E. India. Type. B.M.

77. *C. nigroguttata.*

Cosmoscarta nigroguttata, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 720, n. 8 (1870).

Philippines (Stal).

Nearly allied to *C. rotundata**¹, the croceous area of the tegmina occupying scarcely more than half the tegmina, black spots smaller and more numerous, the third apical part of the clavus and the greater part of the dorsum of abdomen black.

78. *C. semimaculata*.

Cosmoscarta semimaculata, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 719, n. 6 (1870).

Philippines (Stal).

Allied to *C. rotundata*.

79. *C. semipardalis*.

Cercopis semipardalis, Walker, Journ. Linn. Soc. Zool., vol. I., p. 165, n. 131 (1857).

Sarawak (Wallace). Type. B.M.

80. *C. liturata*.

Cercopis liturata, Walker, Journ. Linn. Soc., vol. X., p. 287, n. 323 (1867).

Flores (Wallace). Type. B.M.

Allied to *C. rotundata* and *C. lateralis*.

81. *C. discolor*.

Cercopis discolor, Boisduval, Voy. de l'Astrolabe, Ent., p. 619; pl. 10, fig. 11 (1832—1835).

Dorey (Wallace). B.M.

82. *C. tetragona*.

Cercopis tetragona, Walker, Journ. Linn. Soc., vol. X., p. 284, n. 314 (1867).

Aru (Wallace). Type. B.M.

* Three out of the four examples of this species in the National Collection have the anterior transverse series of spots on the corium con fluent, as in Dr. Stal's Philippine examples.

83. *C. Papuensis, n. sp.*

Closely allied to *C. tetragona*. Head, thorax, pectus and scutellum fulvous, becoming scarlet at the margins; abdomen black; legs fulvous, tibiæ and tarsi fuscous; tegmina, basal half scarlet, a large black spot near the base and three in a transverse series at end of basal third; apical half black; wings fuscous, base scarlet. Length 14 mill.; expanse of tegmina 35.

New Guinea (*Wallace*). Two specimens. B.M.

84. *C. lateralis.*

Cercopis lateralis, Walker, Journ. Linn. Soc., vol. X., p. 285, n. 315 (1867).

Mysol [not Morty] (*Wallace*). Type. B.M.

Allied to *C. discolor*.

85. *C. pellucida, n. sp.*

Head black; clypeus and thorax dull castaneous; scutellum, pectus, and legs testaceous; abdomen bright castaneous; tegmina pale testaceous, hyaline to end of second third, base and a transverse band at end of second third fulvous; apical third piceous; wings slightly fuscous, fulvous at base. Length 11 mill.; expanse of tegmina 29.

Laos (*Mouhot*). Type. B.M.

86. *C. Timorensis, n. sp.*

Head, thorax, pectus, legs, scutellum, and tegmina bright fulvous; abdomen, a diffused patch on each side of pectus, and two transverse irregular bands across tegmina, piceous; apical third of tegmina brownish testaceous. Length 15 mill.; expanse of tegmina 31.

Timor (*Wallace*). Two specimens. B.M.

Allied to *C. pellucida*, but more nearly approaching *C. nexa* in pattern.

87. *C. octopunctata.*

Cercopis octopunctata, Amyot and Serville, Hist. Nat. Hemipt., p. 559, n. 2; pl. 10, fig. 6 (1843).

Cercopis dorsalis (nomen bis lectum), Walker, Journ. Linn. Soc., X., p. 283, n. 310 (1867).

Java (*Amyot*) ; Sumatra & var. Borneo (*Wallace*). B.M.

88. *C. carinata.*

Cosmoscarta carinata, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 720, n. 11 (1870).

Philippines (*Stal*).

Seems allied to *C. octopunctata* and *C. submaculata*.

89. *C. unifascia.*

Cercopis unifascia, Walker, Journ. Linn. Soc. Zool., vol. I., p. 95, n. 56 (1857).

Singapore (*Wallace*). Type. B.M.

Allied to *C. octopunctata*.

90. *C. submaculata.*

Cercopis submaculata, Walker, List Homopt. Ins. III., p. 657, n. 27 (1851) ; var. l. c. Suppl., p. 172 (1858) ; Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 149, n. 10 (1865).

Java. Type. B.M.

Nearly allied to *C. octopunctata*, but with the scutellum black, and the spots of the second series forming a waved line across the hemelytra.

91. *C. brevistriga.*

Cercopis brevistriga, Walker, Journ. Linn. Soc. X., p. 282, n. 307 (1867).

Tondano (*Wallace*). Type. B.M.

92. *C. impressa.*

Cercopis impressa, Walker, Journ. Linn. Soc. X., p. 281, n. 305 (1867).

Flores (*Wallace*). Type. B.M.

93. *C. Lapeyrousei.*

Cercopis Lapeyrousei, Boisduval, Voy. de l'Astrolabe, Ent. p. 617 ; pl. 10, fig. 9 (1832—35).

Vanikoro ?

Closely allied to *C. impressa*.

94. *C. nexa*.

Cercopis nexa, Walker, Journ. Linn. Soc., vol. X., p. 281, n. 306 (1867).

Flores (*Wallace*). Type. B.M.

Nearly allied to *C. impressa*.

95. *C. inaurata*, *n. sp.*

Closely allied to *C. semilurida*; but differs in the uniform pale golden brown colour of the tegmina, the basal two-thirds of clavus, a large transverse irregular spot at end of first third, and the usual two spots at end of second third of tegmina, testaceous; base red. Length 15 mill.; expanse of tegmina 37.

Morty (*Wallace*). Type. B.M.

Evidently a local representative of *C. spectabilis*.

96. *C. semilurida*.

Cercopis semilurida, Walker, Journ. Linn. Soc., vol. X., p. 282, n. 308 (1867).

Batchian and Gilolo (*Wallace*). Type. B.M.

The specimens mentioned by Mr. Walker as coming from Morty and Kaisa are referable to two distinct species; that from Ternate I have not come across.

97. *C. miranda*, *n. sp.*

Nearly allied to *C. semilurida*, but smaller: abdomen of a more uniform red colour; tegmina with basal two-thirds piceous; the base and two transverse spots crossing the corium and clavus, bright orange; apical third pale fuscous, the costa of a deeper tint; wings slightly fuscescent, red at base. Length 14 mill.; expanse of tegmina 33.

Kaisa (*Wallace*). Two specimens. B.M.

98. *C. spectabilis*.

Cercopis spectabilis, Burmeister, Nov. Act. Phys. Med. Nat. Cur. XVI., Suppl., p. 304; pl. 41, fig. 8 (1833).

Cercopis xanthomelæna, White, Ann. & Mag. Nat. Hist. XV., p. 35 (1845).

Manilla (*Burmeister*) ; Phillipines (*Cuming*). B.M.

Our specimens are a little faded, otherwise they differ in no respect from Burmeister's figure ; Stal, however, considers them to be distinct species.

99. *C. inclusa.*

Cercopis inclusa, Walker, List Homopt. Ins. III., p. 658, n. 29 (1851) ; Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 147, n. 6 (1865).

Ceylon. Type. B.M.

100. *C. pallida.*

Cercopis pallida, Walker, List. Homopt. Ins. III., p. 657, n. 26 (1851).

Cercopis ferruginea, Walker, l. c. p. 660, n. 35 (1851).

India. Types. B.M.

101. *C. elegantula*, *n. sp.*

Allied to *C. pallida* ; head and thorax metallic greenish black ; abdomen purplish black, anus castaneous ; pectus and femora reddish-orange, tibiæ and tarsi brownish testaceous ; tegmina piceous, veins of basal half testaceous ; base and a transverse band at end of second third reddish-orange ; wings slightly fuscous, especially at the margins, base rufous. Length 8 mill. ; expanse of tegmina 20.

India. Type. B.M.

102. *C. bipars.*

Cercopis bipars, Walker, List Homopt. Ins. Suppl., p. 172 (1858).

Java (*Bowring*). Type. B.M.

103. *C. semirosea.*

Cercopis semirosea, Walker, Journ. Linn. Soc. I., p. 165, n. 133 (1857).

Sarawak (*Wallace*). Type. B.M.

104. *C. pictilis.*

Cercopis pictilis, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 249, n. 2 (1854).

E. India (*Stal*).

Seems allied to *C. signifera* of Walker from the description, in which case it would have to be referred to *Phymatostetha*.

Cercopis transversa of Walker (List Homopt. Ins. p. 1151, n. 49) and *C. subdolens* of Walker (Linn. Journ. vol. I., p. 165, n. 135) appear to be species of *Triecphora*; *C. Boitardi* of Montrouzier is an *Aphrophora*; *C. Strongii* of Westwood (E. Ind. in gum animè) seems better placed in *Sphenorhina*.

GENUS PHYMATOSTETHA. *Stal.*1. *P. perspicillaris.*

Cercopis perspicillaris, White, Ann. and Mag. Nat. Hist. XV., p. 35 (1845).

Philippines (*Cuming*). Type. B.M.

Local var. *Cercopis varia*, Walker, Journ. Linn. Soc. X., p. 284, n. 313 (1867).

Tondano and Macassar (*Wallace*). Type. B.M.

Only differs from the Philippine form in having the two black spots on apical third of hemelytra united to one another and to the margins; thus leaving only a red spot at apex.

2. *P. punctifascia.*

Cercopis punctifascia, Walker, Journ. Linn. Soc. vol. X., p. 288, n. 326 (1867).

Batchian (*Wallace*). Type. B.M.

3. *P. undulifera.*

Cercopis undulifera, Walker, Journ. Linn. Soc. Zool. vol. I., p. 165, n. 134 (1857).

Sarawak (*Wallace*). Type. B.M.

4. *P. dislocata.*

Cercopis dislocata, Walker, Journ. Linn. Soc. Zool. vol. I, p. 95, n. 55 (1857).

Singapore (*Wallace*). Type. B.M.

5. *P. Semele.*

Tomaspis Semele, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 151, n. 4 (1865).

Siam, Laos. B.M.

6. *P. inconspicua*, *n. sp.*

Head above and thorax blue-black, rugulose, testaceous pubescent; head below, scutellum, abdomen and legs testaceous; thorax with lateral anterior margins and two central spots, fulvous; scutellum crossed by a black spot, venter crossed by regular series of black spots; pectus black; tegmina piceous, base irregularly testaceous, two irregular transverse bands, dividing them into three equal parts, the inner one interrupted; wings slightly fuscous. Length 9 mill; expanse of tegmina 21.

Ceylon. Two specimens. B.M.

7. *P. Stalii*, *n. sp.*

Tomaspis circumducta Stal (nec Walker), Öfvers. Kongl. Vetensk. Akad. Förh., p. 150, n. 3 (1865).

N. India. B.M.

Dr. Stal unfortunately publishes his belief that this is Walker's *C. circumducta* (Öfvers. Vetensk. p. 721 note, 1870); however, it is so similar to that species in pattern that Mr. Walker accidentally placed the name under it in the cabinet, leaving "*C. costalis*" under the type.

8. *P. triseriata*, *n. sp.*

Allied to *P. Stalii*, larger, with broader tegmina, the transverse bands of which are each broken up into three spots; head red-brown, becoming redder in front, clypeus scarlet; thorax, pectus and legs piceous, the lateral anterior margins of the thorax scarlet; scutellum black, with scarlet

margin; abdomen shining purple black: tegmina piceous, the costal margin, a streak on the outer basal edge of clavus, and two transverse series, each of three spots, scarlet, apical margin bright testaceous; wings slightly fuscous, base scarlet. Length, 14 mill; expanse of tegmina 37.

Laos (*Mouhot*). Two specimens. B.M.

9. *P. circumducta*.

Cercopis costalis (nomen bis lectum) Walker, List Homopt. Ins. III., p. 664, n. 45 (1851).

Cercopis circumducta, Walker, l. c. Suppl. p. 175 (1858).
Malabar. Type. B.M.

10. *P. Borneensis*, n. sp.

Tomaspis costalis, Stal (nec Walker), Öfvers. Kongl. Vetensk. Akad. Förh., p. 151, n. 5 (1865).

Malacca (Stal); Sarawak (Wallace). Two specimens. B.M.

Allied to *P. Stalii*, *circumducta*, and *hilaris*; it differs from the two first in having a conspicuous orange red spot close to apex of tegmina; in other respects it comes nearest to *P. circumducta*.

11. *P. hilaris*.

Cercopis hilaris, Walker, List Homopt. Ins. III., p. 665, n. 46 (1851).

Malabar. Type. B.M.

I do not agree with Dr. Stal in considering this identical with *C. circumducta* of Walker.

12. *P. ? Lessonii*.

Eurymela Lessonii, Boisduval. Voy. de l'Astrolabe, Ent., p. 620, pl. 10, fig. 12 (1832-35).

Amboina.

13. *P. mactans*.

Cercopis mactans, White, Ann. & Mag. Nat. Hist. XV., p. 36 (1845).

Philippines (*Cuming*). Type. B.M.

Certainly not *P. perspicillaris* of White, although considered identical by Dr. Stal (Öfvers. Vetensk. Akad. Förh., p. 721, 1870).

14. *P. Cynthia.*

Tomaspis Cynthia, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 150, n. 1 (1865).

Bourou.

Appears to be allied to *P. mactans* & *P. stellata*.

15. *P. stellata.*

Cercopis stellata, Guérin, Icon. Règne Anim. Texte, p. 368 (1829-44).

Cercopis dorsimacula (nomen bis lectum), Walker, List Homopt. Ins. p. 663, n. 41 (1851).

Cercopis tomentosa, Walker, Journ. Linn. Soc. X., p. 284, n. 312 (1867).

Malacca and Sumatra (*Wallace*); Malabar. (Walker's types.) B.M.

16. *P. Nympha.*

Tomaspis Nympha, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 150, n. 2 (1865).

Malacca (Stal).

According to Stal, "closely allied to *C. stellata* of Guérin."

17. *P. dorsivitta.*

Cercopis dorsivitta, Walker, List Homopt. Ins. III., p. 662, n. 39 (1851).

var. *Cercopis humeralis*, Walker, l. c. n. 40 (1851).

Almorah (*Warwick*); Silhet (*Stainsforth*). Types. B.M.

18. *P. pudica.*

Cercopis pudica, Walker, Ins. Saunders. Homopt., p. 84 (1858).

Silhet. Type. B.M.

Allied to *P. mactans* & *P. signifera*.

19. *P. signifera.*

Cercopis signifera, Walker, List Homopt. Ins. III., p. 655, n. 21 (1851); Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 151, n. 6 (1865).

Silhet & N. India. Type. B.M.

20. *P. dubitabilis.*

Cercopis dubitabilis, Walker, List Homopt. Ins. Suppl., p. 173 (1858).

E. India. Type. B.M.

Allied to *C. signifera*, but the hemelytra red not yellow at base, and with the markings somewhat differently arranged.

21. *P. pudens.*

Cercopis pudens, Walker, List Homopt. Ins. Suppl., p. 174 (1858); Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 151, n. 7 (1865).

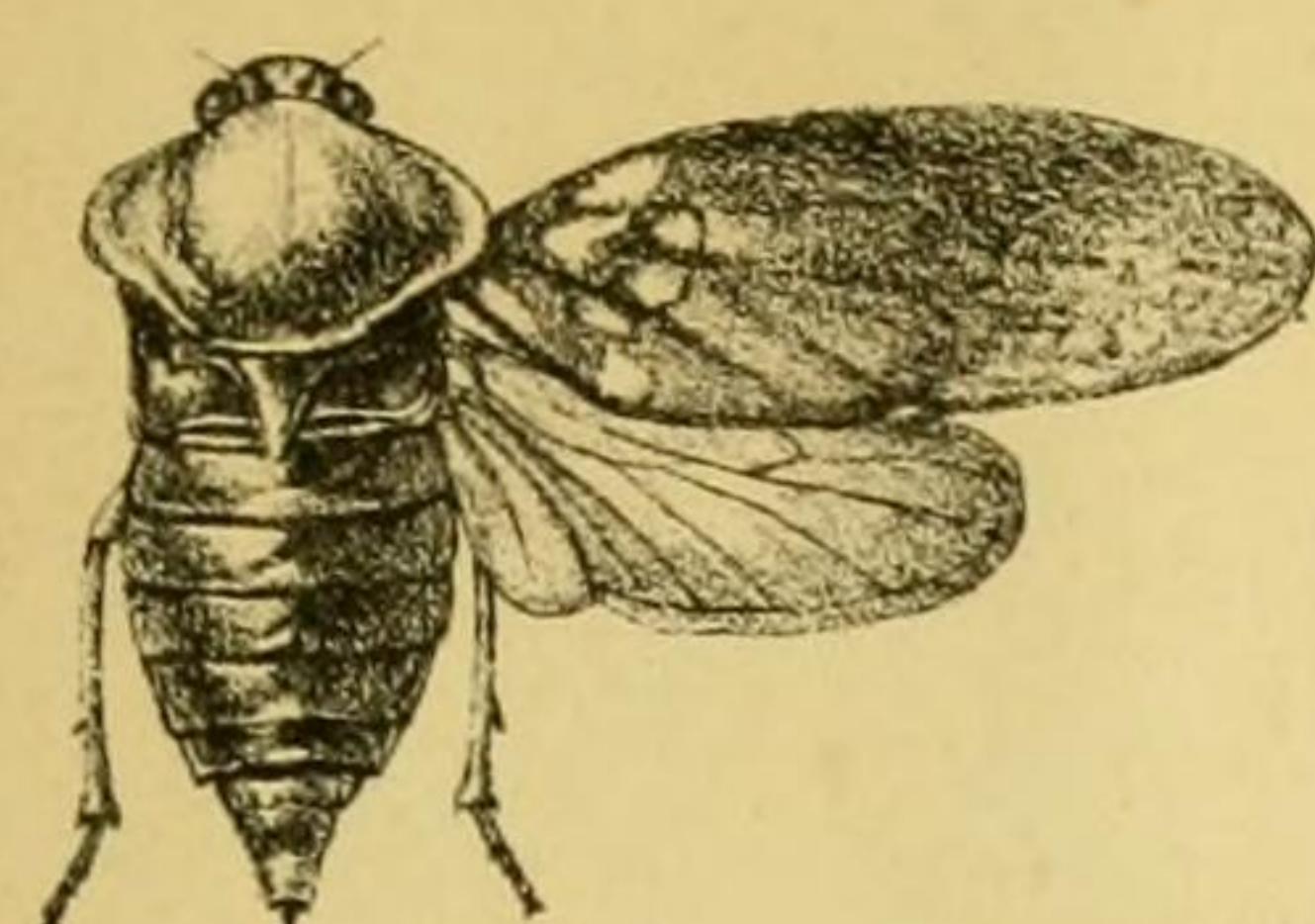
E. India. Type. B.M.

22. *P. basiclava.*

Cercopis basiclava, Walker, List Homopt. Ins. Suppl., p. 172 (1858).

Tomaspis Larinia, Stal, Öfvers. Kongl. Vetensk. Akad. Förh., p. 152, n. 8 (1865).

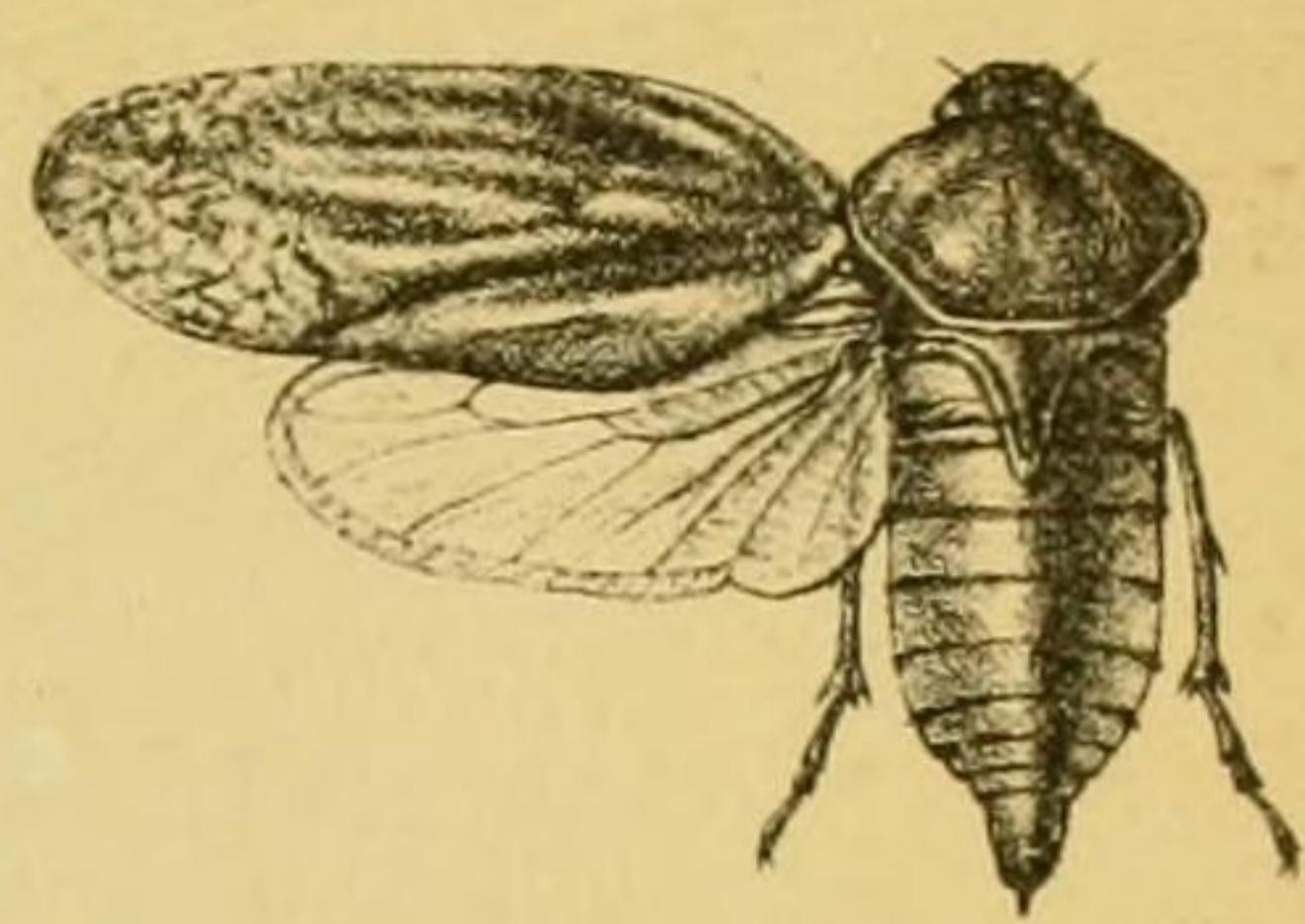
E. India. Type. B.M.



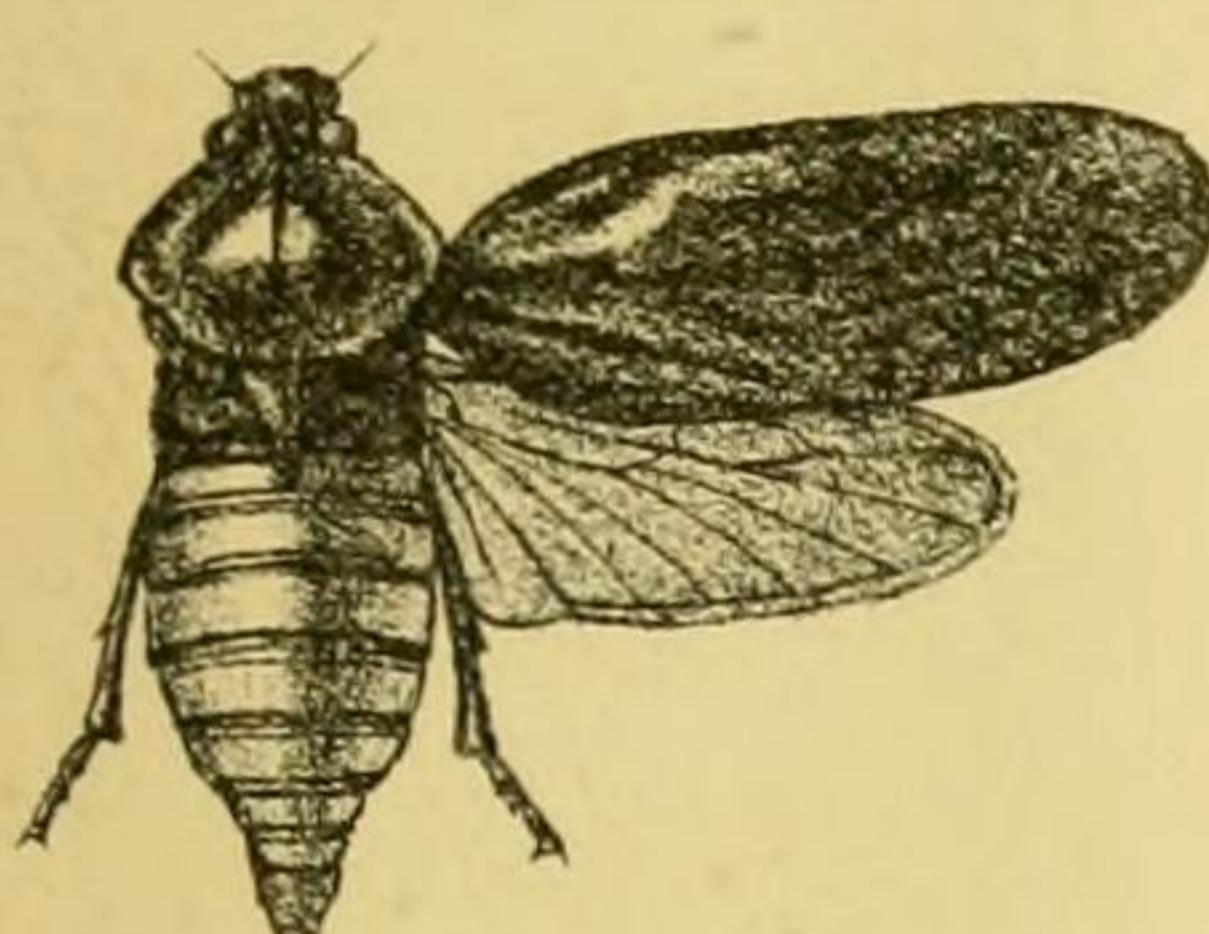
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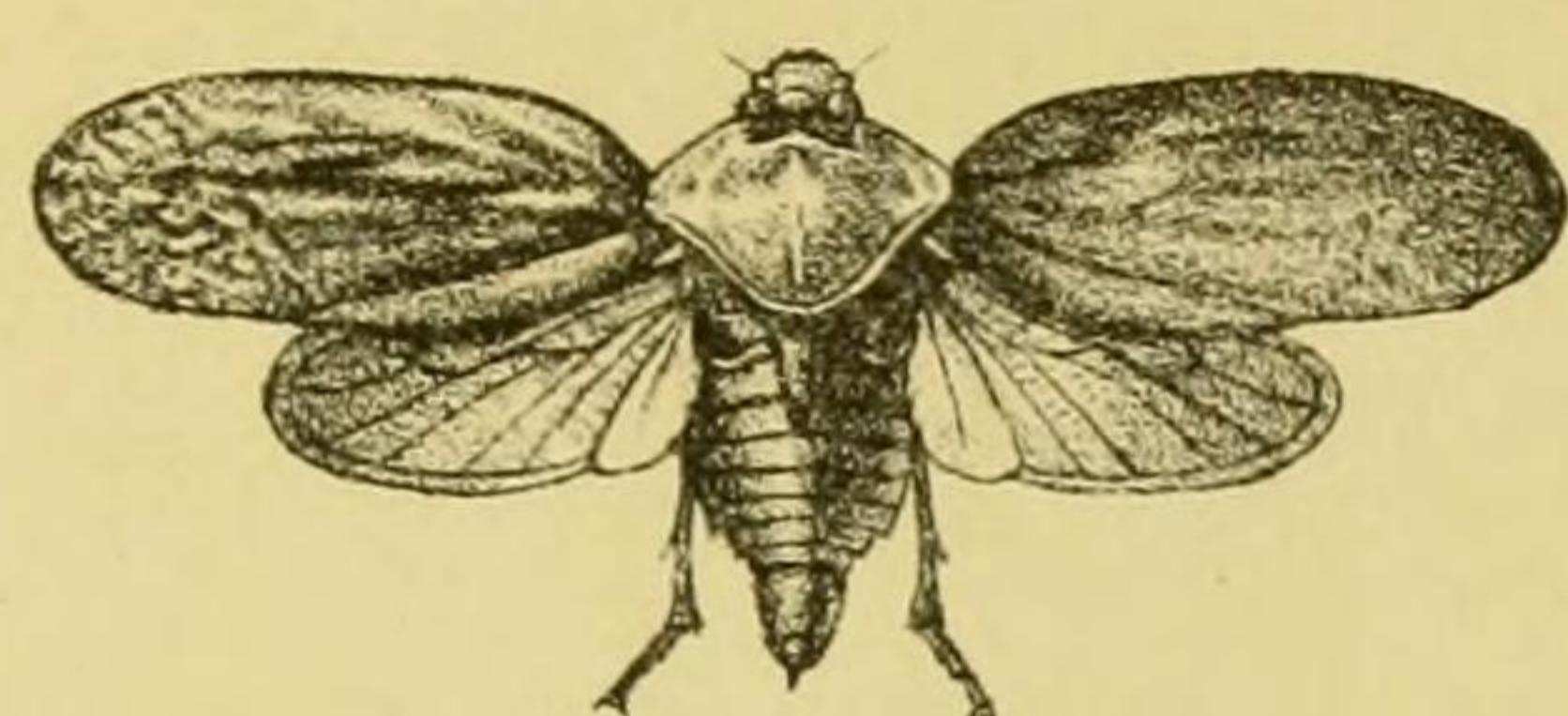
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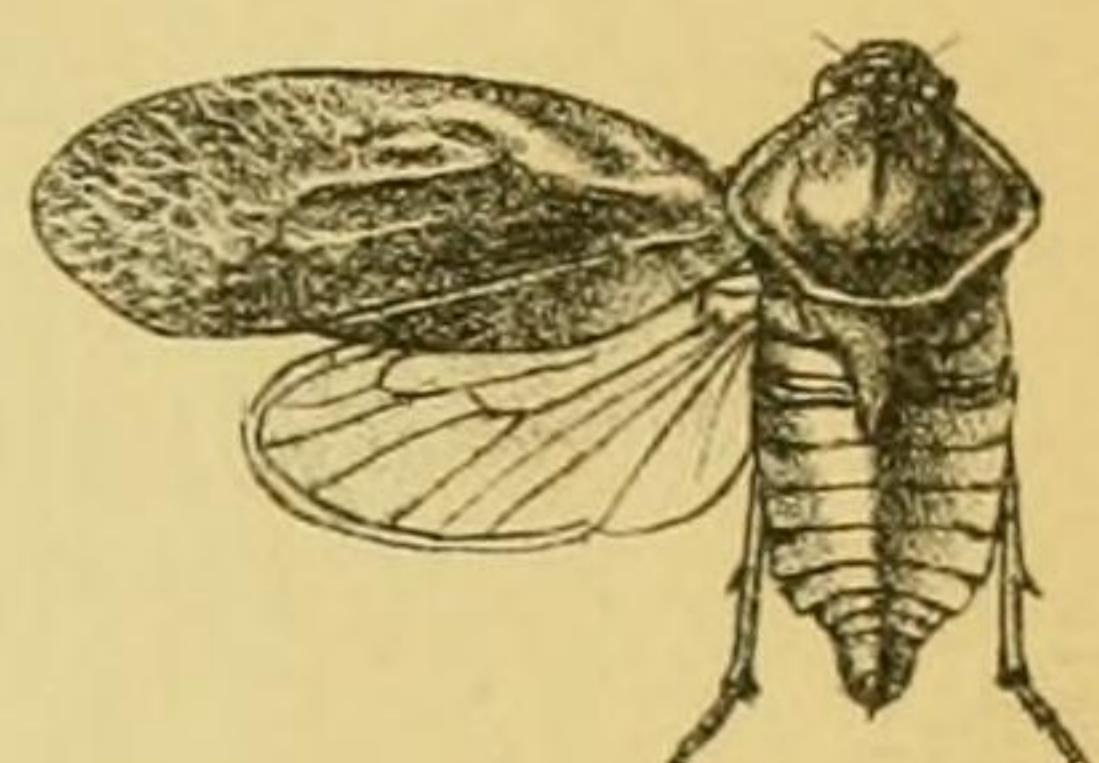
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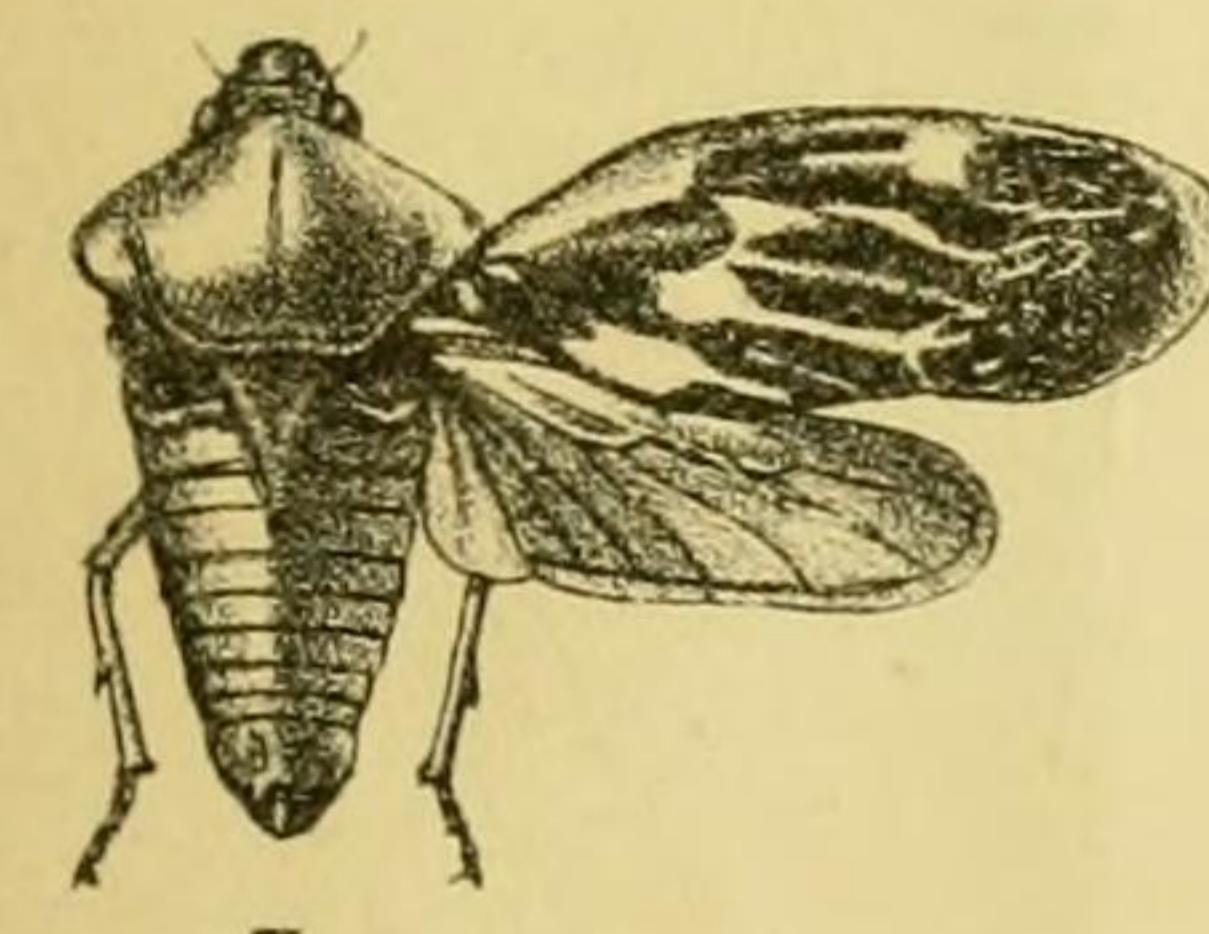
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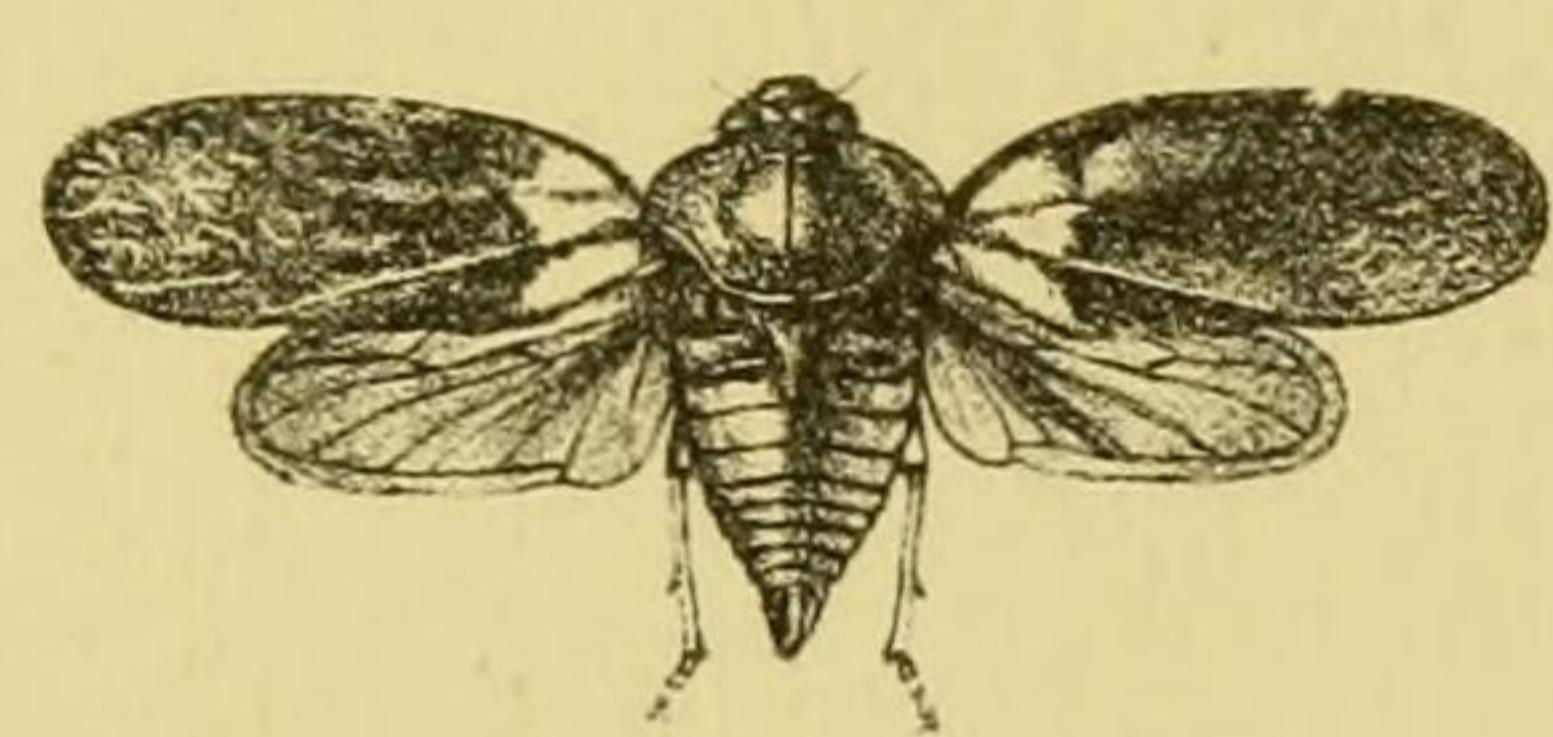
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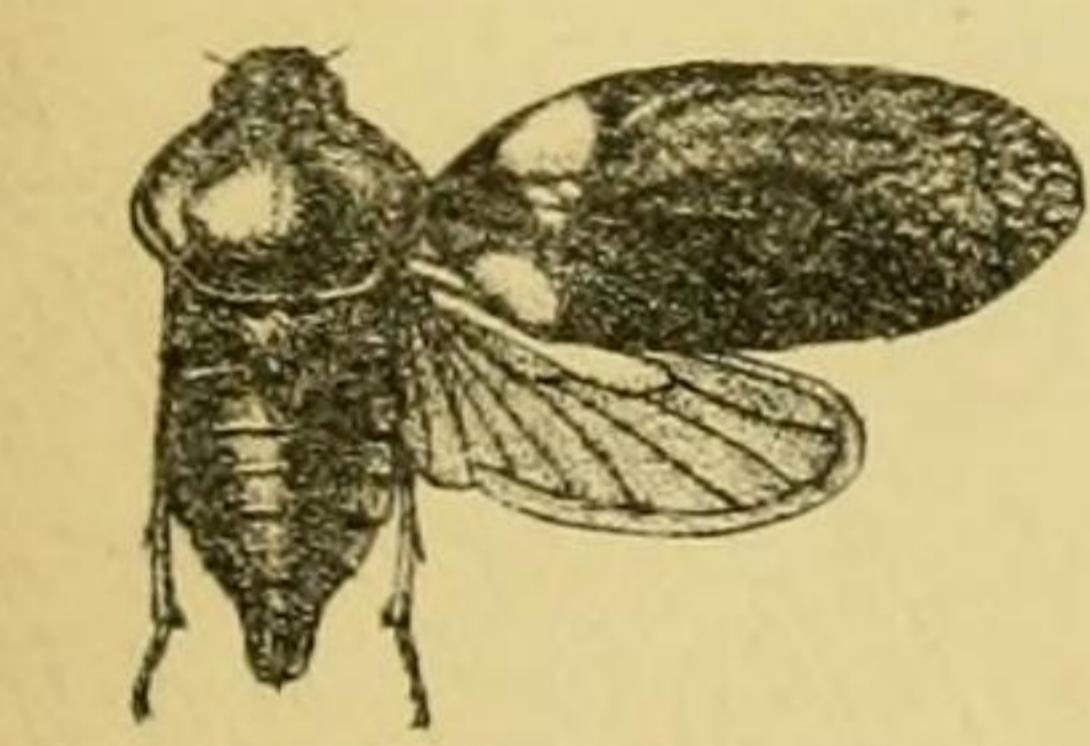
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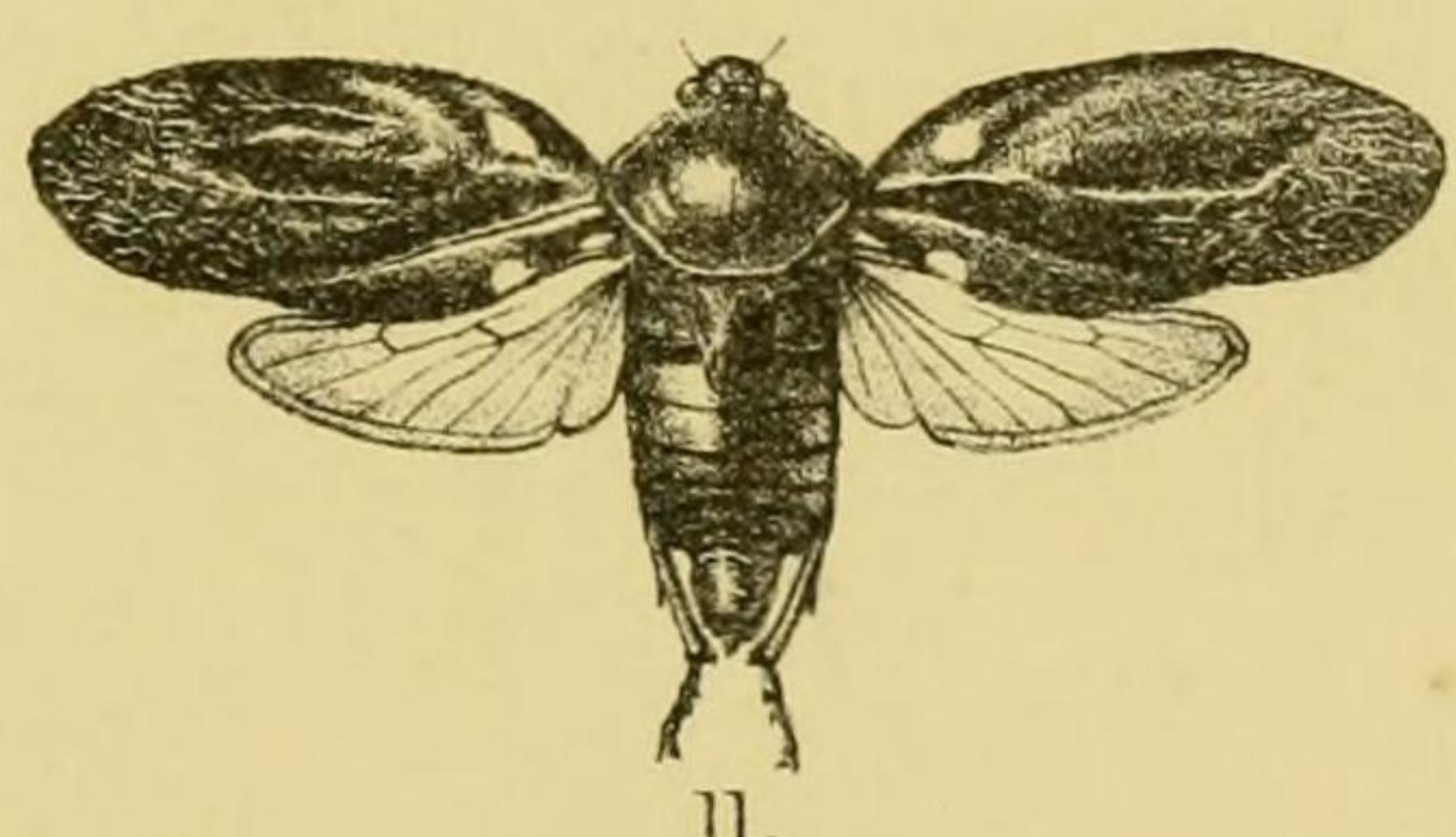
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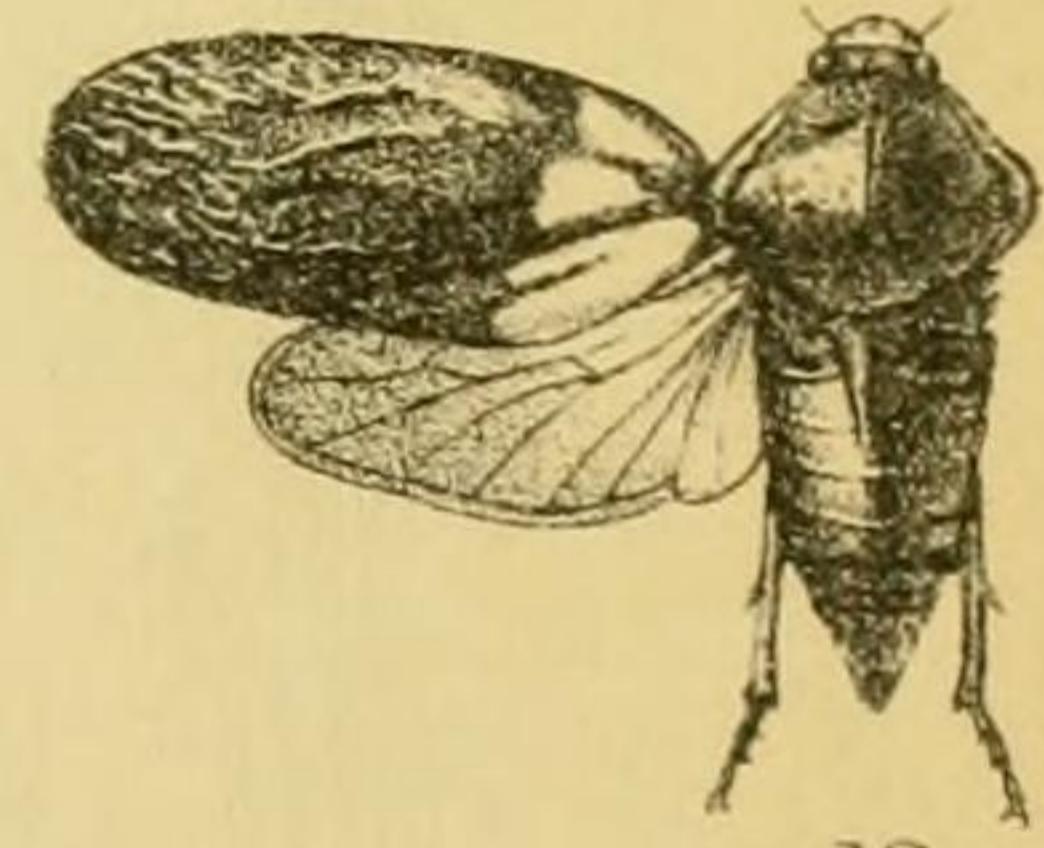
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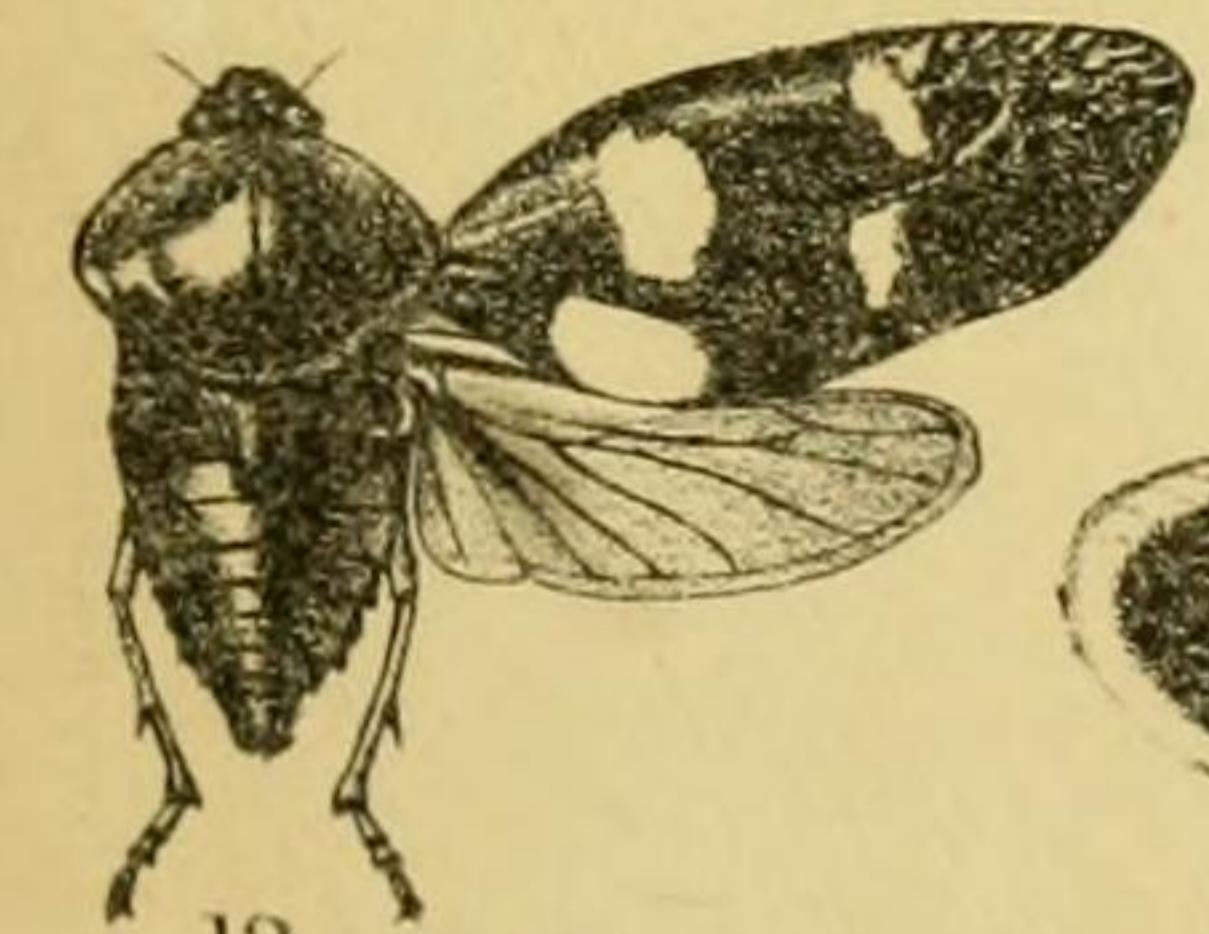
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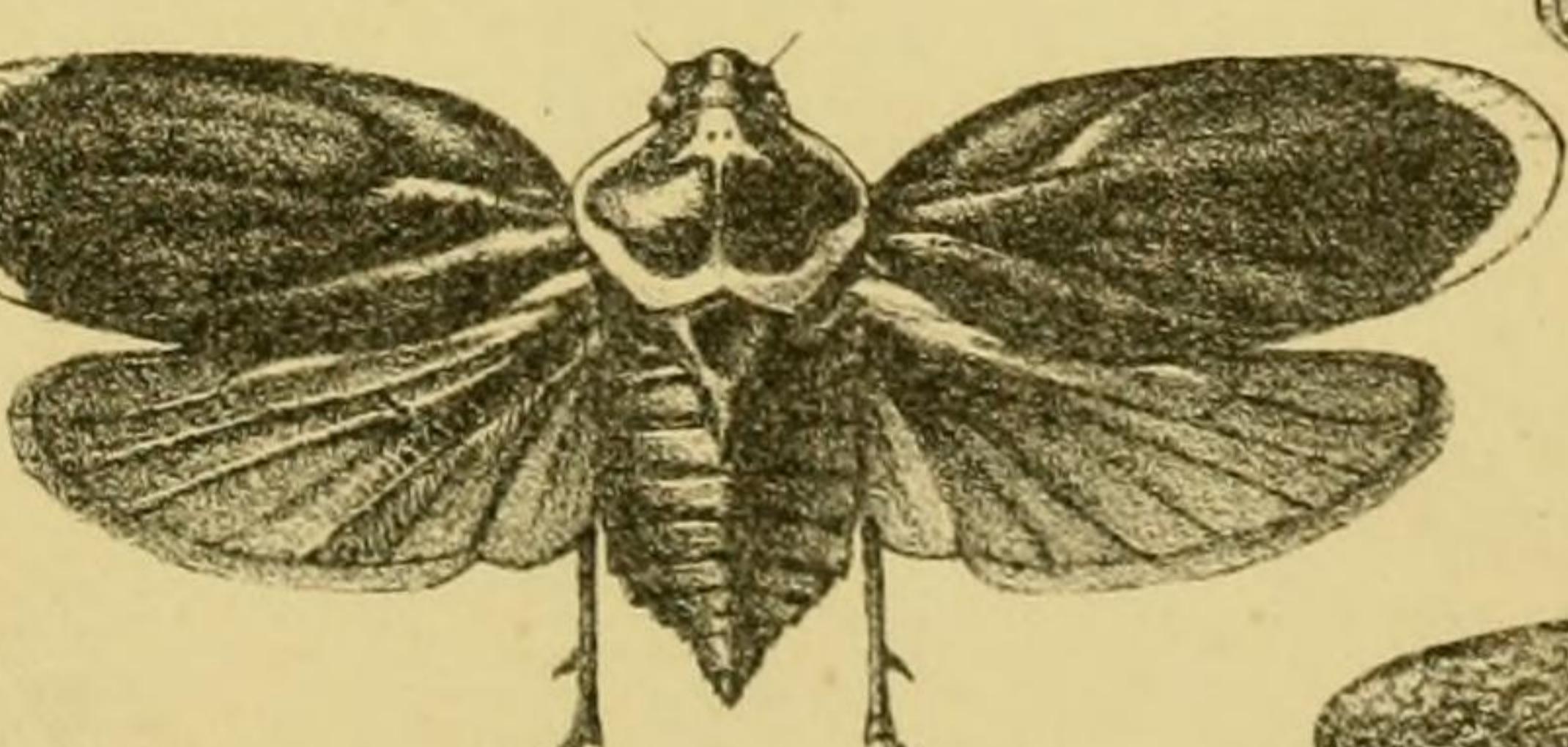
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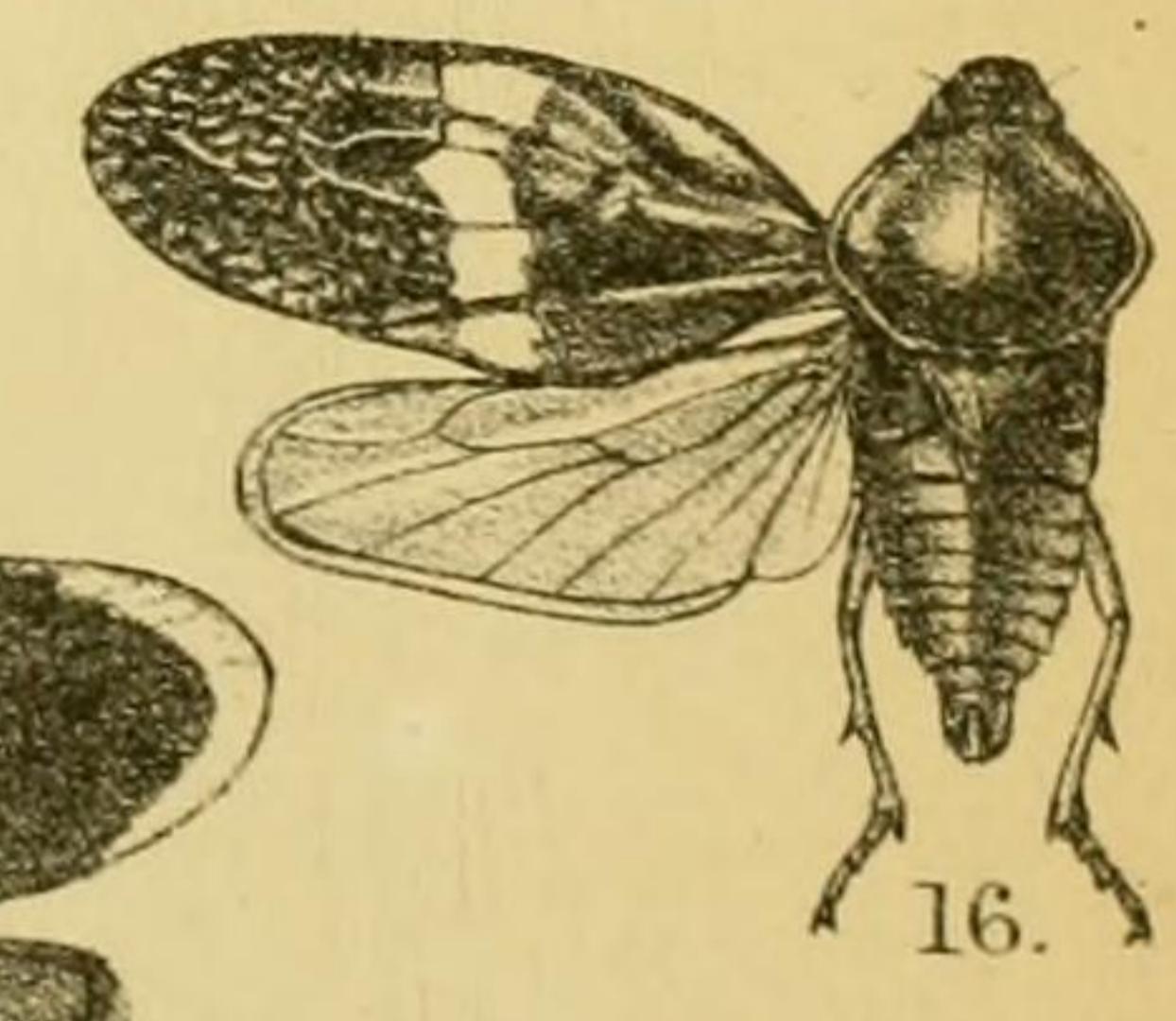
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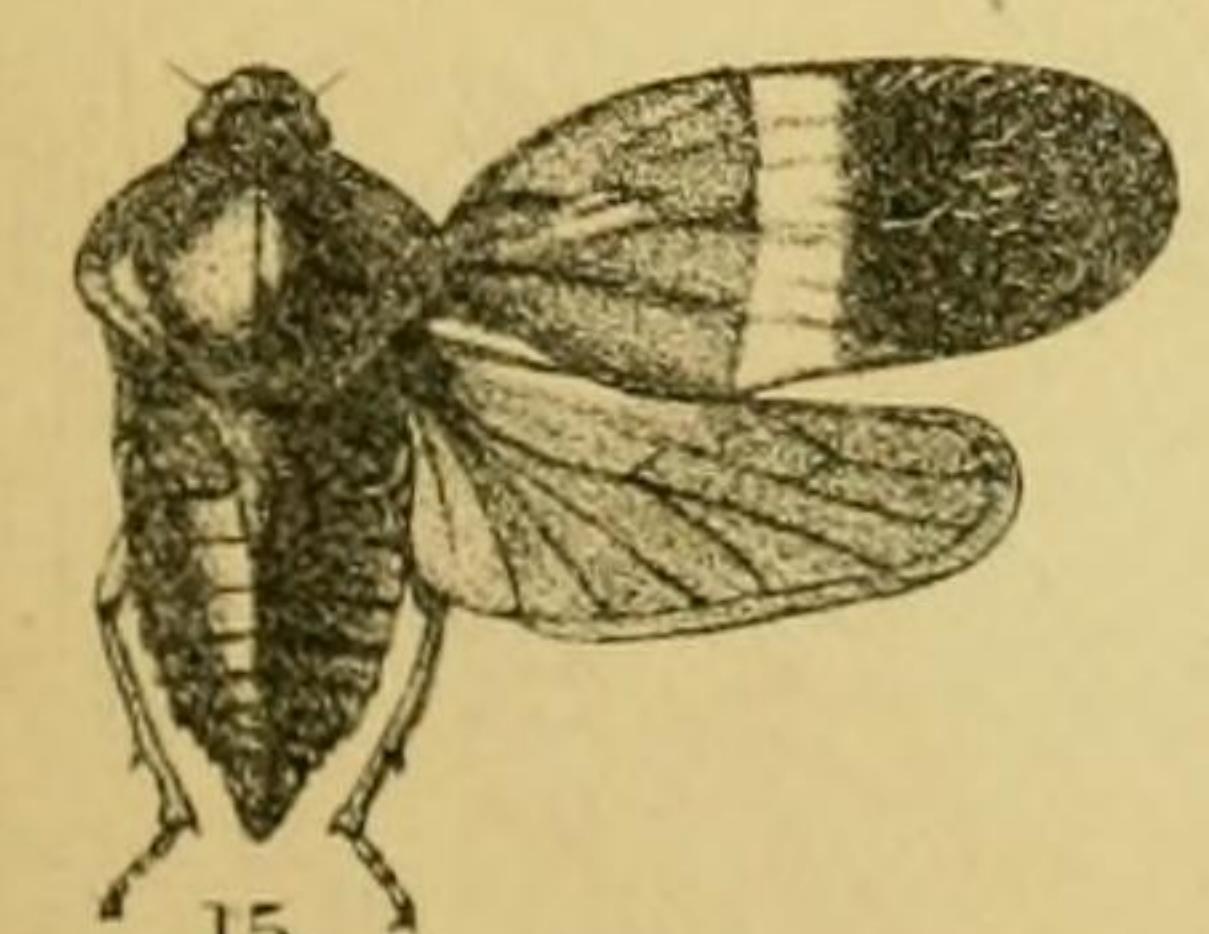
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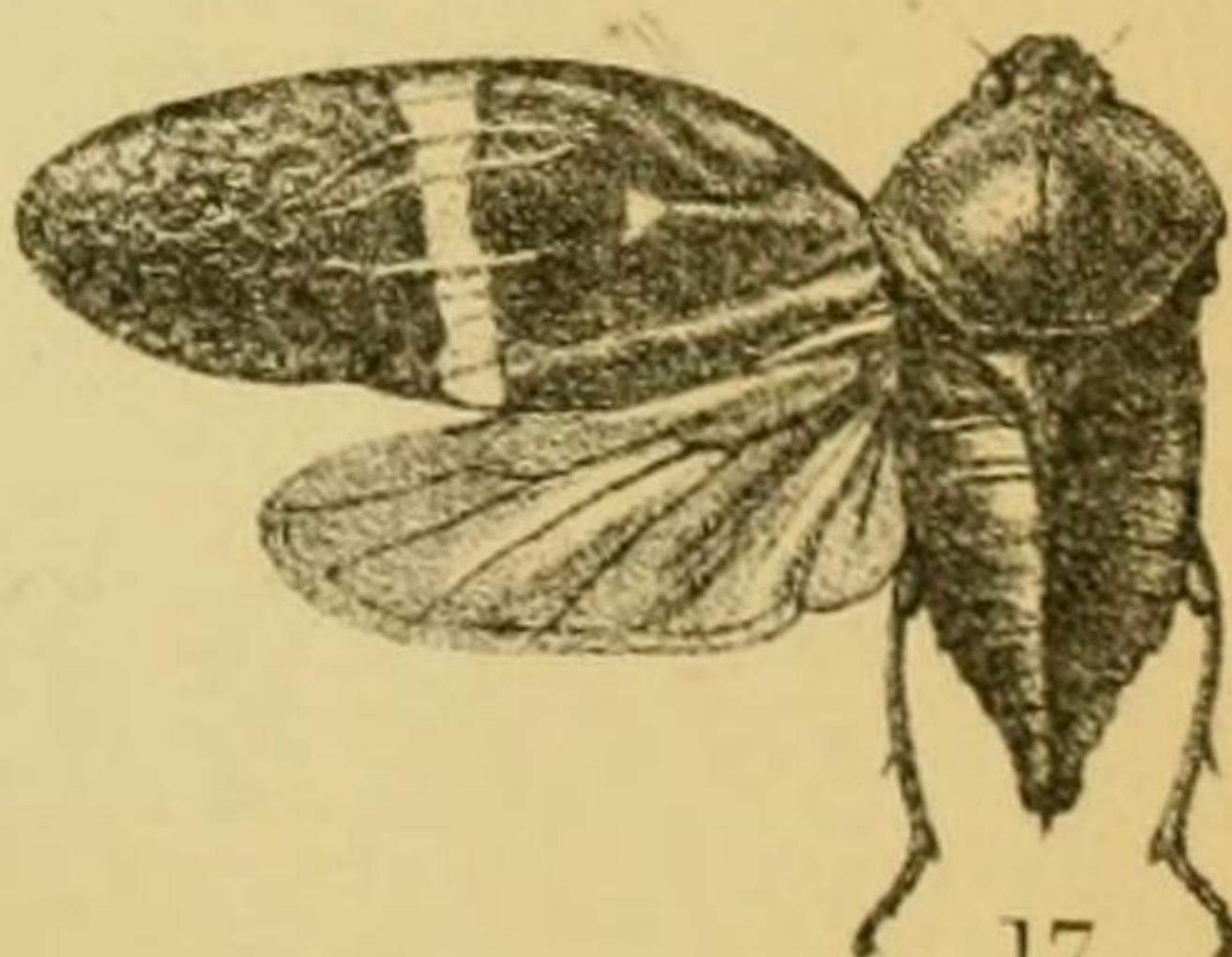
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16.



15.



17.