Bibliography of the more important contributions to American economic entomology.

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U. S. DEPARTMENT OF AGRICULTURE.
DIVISION OF ENTOMOLOGY.

BIBLIOGRAPHY

OF

THE MORE IMPORTANT CONTRIBUTIONS

TO

AMERICAN ECONOMIC ENTOMOLOGY.

PREPARED, BY AUTHORITY OF THE SECRETARY OF AGRICULTURE,

BY

SAMUEL HENSHAW.

PART I.

THE MORE IMPORTANT WRITINGS

OF

BENJAMIN DANN WALSH.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1889.

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INTRODUCTION TO PARTS I, II, AND III.

The object of the present lists is to record the principal entomological writings of B. D. Walsh and C. V. Riley. Few will be likely to criticize the association of the names of Walsh and Riley in a list of this kind, so largely devoted to economic entomology, or to question the desirability of collating their writings in advance of others.

As recognized authorities upon entomology, especially from an economic standpoint, their writings have been extensively quoted sometimes with, but frequently without, credit in the agricultural and horticultural journals of the day. These secondary references, though of a certain value when the original is inaccessible, have, as a rule, been omitted. In citing such as are given I have used my personal judgment. To have given all would have increased the size of the list considerably with but a slight increase in its usefulness.

Occasionally, a publisher to meet some popular demand puts the writings of an author into book form without the knowledge of the latter. Such an occurrence has happened more than once with Dr. Riley's writings. To mention but one: In 1877 Messrs. George Rutledge & Sons, of London, published "The Colorado beetle, with suggestions for its repression and methods of destruction," with Dr. Riley's name upon the title-page as author. This is a partial reprint of Potato Pests entirely unsanctioned and published without knowledge of the author. (See *London Times*, October 17, 1887.) These publishers' reprints are omitted from this list. The "S.-b." after the reference of many of the articles from the agricultural and other journals refers to the series of scrap-books used in divisional work.

A biographical sketch of Dr. Walsh is given in the second volume of the *American Entomologist*, Vol. II, No. 3, pp. 65–68, January, 1870.

The chief facts in Dr. Riley's life may be found in the "Commonwealth of Missouri" (1875) and the *National Farmer*, September 20, 1883.

In the preparation of the list I have freely used all data accumulated by the Division, notably the work of Mr. B. P. Mann and a private list of Dr. Riley's.

Many persons, both within and without the Department, have kindly answered my inquiries.—S. H.

BIBLIOGRAPHY OF THE MORE IMPORTANT CONTRIBUTIONS TO AMERICAN ECONOMIC ENTOMOLOGY.

THE WRITINGS OF B. D. WALSH (1860–1873).

1. WALSH, B. D. Bark-lice. <Western Rural. S.-b. No. 3, p. 11.
   Habits of *Lecanium* compared with *Aspidiotus* [=*Mytilaspis*].

2. WALSH, B. D. Entomological notes. <Prairie Farmer, 17 May, 1860, [v. 21], n. s., v. 5, pp. 308–309, figs. S.-b. No. 1, pp. 42–43.
   Notice of *Coccus harrisii* n. sp. [=*Chionaspis furfurus*]; figure of its scales; description and figure of *Capsus oblineatus* [=*Lygus pratensis*] infesting apple, quince, and pear trees; figure of larva case and imago and description of *Phycita nebulo* [=*Acrobasis indiginella*]; figures of imago and of injuries of *Amphicerus bicaudatus;* habits of the same and of *Scolytus* [=*Xyleborus*] *pyri*, *Saperda bivittata* [=*candida*] and *Chrysobothris femorata;* means against the last.

3. WALSH, B. D. "Cutworms." <Prairie Farmer, 9 August, 1860, [v. 22], n. s., v. 6, pp. 82–83, fig. S.-b. No. 1, pp. 84–85.
   Account of the larvæ of *Lachnosterna quercina* [=*fusca*] of *Elateridæ* of *Agrotidæ* and of *Pangus* [=*Harpalus*] *caliginosus;* figures of larvæ and imagos of the same or allied species; also of *Heteronychus* [=*Ligyrus*] *relictus*, *Lopha* [=*Bembidium*] 4-*maculatum* and *Agonoderus pallipes*.

4. WALSH, B. D. [*Ips quadrisignatus*, Say.] <Prairie Farmer, 1860, [v. 22], n. s., v. 6, p. —.
   Ips 4-*signatus* [=*fasciatus*] attacks growing ears of sweet corn.

5. WALSH, B. D.] "Insect Life." < Proc. Agric. Conv.; Ann. meeting Ill. Nat. Hist. Soc.; Comm. Exerc. State Normal Univ. [Bloomington, Ill.], 1860, pp. 11–12.
   Report, compiled from Chicago papers of address delivered before the Illinois Natural History Society; comparison between injurious insects and an invading army; necessity of appropriations for carrying on entomological work; economic entomology in Europe; importance of beneficial insects.

6. WALSH, B. D. Insects injurious to vegetation in Illinois. <Trans. Ill. State Agric. Soc., September, 1861, v. 4, pp. 335–378, figs. 1–11. Separate: 1861, 43 pp., 1 pl. Reprint in part: <Trans. Ill. Nat. Hist. Soc., v. 1. Prairie Farmer, 6 December, 1861, [v. —], n. s., v. —, pp. 370–371.

Ravages of injurious insects; enemies of the same; notes on *Cecidomyia destructor, Saperda bivittata* [=*candida*], *Chrysobothris femorata, Conotrachelus nenuphar* and *Blissus leucopterus;* natural history, ravages and means against *Leucania unipuncta;* figures its larva, pupa and imago; descriptions and figures primary and secondary parasites of the army-worm; figures *Hippodamia* (=*Megilla*) *maculata, Coccinella munda* [=*sanguinea*] and a larval coccinellid.

7. WALSH, B. D. From Benj. D. Walsh. <Illinois Farmer, October, 1861.

Denies statement attributed by C. Thomas (Illinois Farmer, September, 1861), that he (Walsh) believed in the hibernation of the pupa of *Leucania unipuncta.*

8. WALSH, B. D. The army-worm question. <Prairie Farmer, 5 December, 1861, [v. 24], n. s., v. 8, pp. 370–371. S.-b., No. 4, p. 22.

Replies to arguments of C. Thomas (Prairie Farmer, 1861, v. 8, pp. 306–307), on the hibernation of *Leucania unipuncta.*

9. WALSH, B. D. The army-worm question. Mr. Walsh's reply. <Field Notes, 14 December, 1861.

Controversial answer to the assertion of J. H. Klippart (Field Notes, 30 November, 1861), that the larvæ of *Leucania unipuncta* are viviparous.

10. WALSH, B. D. The army-worm and its enemies. <Prairie Farmer, 1861, [v. 24], n. s., v. 8, p. 4. Reprint: <Trans. Ill. Nat. Hist. Soc., v. 1. Prairie Farmer, 6 December, 1861, [v. 24], n. s., v. 8, pp. 370–371.

Popular account of some of the parasites of *Leucania unipuncta.*

11. WALSH, B. D. The army-worm. <Prairie Farmer, 1861, [v. 24], n. s., v. 8, pp. 257–258. Reprint: <Trans. Ill. State Agric. Soc., 1861, v. 4, pp. 373–375.

Hibernation of the egg; spring burning as a means against *Lucania unipuncta;* description of *Hockeria* [=*Haltichella*] *perpulchra* n. sp.; notes on other parasites.

12. WALSH, B. D. The army-worm and its insect foes. <Prairie Farmer, 1861, [v. 24], n. s., v. 8, pp. 322–323; 337–339; 354–355.

Habits and description of larva and imago of *Leucania unipuncta;* hibernation of the egg; figures of larva, pupa and imago; also of *Exorista* [=*Nemorœa*] *leucaniæ, Pezomachus minimus, Microgaster* [=*Apanteles*] *militaris, Hockeria* [=*Haltichella*] *perpulchra* and *Glyphe viridascens.*

13. WALSH, B. D. Bug preying on honey-bee. <Prairie Farmer, 1861. S.-b., No. 4, p. 7.

Unknown heteropteron, said to prey on *Apis mellifica.*

14. WALSH, B. D. The pea and its insect foe. <Prairie Farmer, 1861. S.-b., No. 4, p. 12.

Unknown leaf-miner and leaf-eater on pea; directions for rearing insects.

15. WALSH, B. D. The grain weevil. <Journ. Ill. State Agric. Soc., January, 1862, fig. Reprint: <Trans. Ill. State Agric. Soc. v. 5, pp. 484–485.

Sitophilus [= *Calandra*] *remotepunctata* infests wheat.

16. WALSH, B. D. [*Ithycerus noveboracensis.*] <St. Louis Valley Farmer, March, 1862, v. 14, pp. 82–85, fig.

Ithycerus noveboracensis attacks twigs of fruit trees in nurseries.

17. WALSH, B. D. [Army-worm.] <St. Louis Valley Farmer, 1862, v. 14, p. 161.

Correction of mistake of E. S. Washington (St. Louis Valley Farmer, 1862, v. 14, p. 161), who mistook parasitic larvæ for young *Leucania unipuncta;* economy of parasites of army-worm.

18. WALSH, B. D. [*Brachytarsus variegatus.*] <Journ. Ill. State Agric. Soc., March, 1862, pp. 8–12, fig.

Brachytarsus variegatus parasitic (?) on a large orange-colored cecidomyid (?) larva in stems of wheat.

19. WALSH, B. D. A new insect in wheat, *Bruchus.* <Journ. Ill. State Agric. Soc., April, 1862. Reprint: <Trans. Ill. State Agric. Soc., v. 5, pp. 485–490.

20. WALSH, B. D. [Two apple-tree borers.] <Journ. Ill. State Agric. Soc., June, 1862, pp. 21–23.

Treats of *Chrysobothris femorata* and *Saperda bivittata* [=*candida*].

21. WALSH, B. D. [Colorado potato beetle.] <St. Louis Valley Farmer, July, 1862, pp. 209–210. Reprint (?): <Prairie Farmer, 6 June, 1863, v. —, p. 356, fig.

Doryphora 10-*lineata* infests egg plants, potato and tomato vines, etc., in Kansas and Iowa.

22. WALSH, B. D. Fire-blight. Two new foes of the apple and pear. <Prairie Farmer, 6 September, 1862, [v. 26], n. s., v. 10, pp. 147–149, fig. Separate: pp. 4.

Fire-blight defined; probably caused by attacks of *Chloroneura malefica* [=*Empoasca viridescens*] and *C. maligna* [=*E. obtusa*]; characters, habits, and ravages of the same; synoptic separation of several genera of *Typhlocybini*; two (2) new genera and thirteen (13) new species are described. For a list of the same see the *Systematic Index.* The figures show *C. malefica* and *C. maligna* and the venation of allied forms.

(NOTE.—The descriptive portion with figures is reprinted in Proc. Bost. Soc. Nat. Hist., February, 1864, v. 9, pp. 314–318.)

23. WALSH, B. D. Plant lice, the corn-root louse, a new enemy to the corn. <Journ. Ill. State Agric. Soc., September, 1862, pp. 8–13, fig. Reprint: <Trans. Ill. State Agric. Soc., v. 5, pp. 491–497, fig.

Aphis maidis (?) infests the roots of young Indian corn as well as the stems of the roasting ears.

24. WALSH, B. D. List of the Pseudoneuroptera of Illinois contained in the cabinet of the writer, with descriptions of over forty new species, and notes on their structural affinities. <Proc. Acad Nat. Sci. Phil., September, 1862, pp. 361–402.

One hundred and nine (109) species are enumerated; two (2) new genera and forty (40) new species are described. For a list of the same see the *Systematic Index*.

25. WALSH, B. D. [*Erythroneura tricincta* Fitch.] <St. Louis Valley Farmer, October, 1862, pp. 305–306, fig.

Erythroneura [=*Typhlocyba*] *tricincta* on grape-vines.

26. WALSH, B. D. Grasshoppers and locusts. <Journ. Ill. State Agric. Soc., November, 1862, pp. 1–3. Reprint: <Trans. Ill. State Agric. Soc., v. 5, pp. 497–499.

Injuries of locusts in the Mississippi Valley; differences between locusts and Cicadas.

27. WALSH, B. D. On the genera of *Aphidæ* found in the United States. <Proc. Ent. Soc. Phil., December, 1862, v. 1, pp. 294–311, figs. 1–8.

Synoptic separation of the genera; list of seventy (70) species found in the United States, with food habitat; *Aphis* [=*Nectarophora*] *rudbeckiæ* Fitch, *A. vitis* ? Scop., *A. maidis* ? Fitch, *Lachnus caryæ* Harris, *Thelaxes* [=*Colopha*] *ulmicola* Fitch are described; one (1) new genus and eleven (11) new species are described; see the *Systematic Index* for a list of the same; the figures show venation and other details. Two (2) new ants, *Formica aphidicola* and *F.* [=*Lasius*] *latipes*, are described.

28. WALSH, B. D. [Observations on *Papilio glaucus* and *P. turnus*.] <Proc. Ent. Soc. Phil., February, 1863, v. 1, pp. 349–352.

Reasons for considering *turnus* and *glaucus* identical; the latter a dimorphic ♀ of the former; distribution of the two forms; citation of similar case among *Pieridæ* and of analogous one among *Dytiscidæ*; description of larva from which a black ♀ was raised.

29. WALSH, B. D. [Katydid eggs.] <Prairie Farmer, 28 February, 1863, [v. 27], n. s., v. 11, p. 132, fig.

Oviposition of katydid eggs on apple-twigs.

30. WALSH, B. D. Fire-blight. <Prairie Farmer, 4 April, 1863, [v. 27], n. s., v. 11, p. 212, fig. S.-b., No. 1, p. 10.

Description and figures of eggs of *Chloroneura malefica* [=*Empoasca viridescens*] and the slits in which they are deposited in apple-twigs; cause of fire-blight; suggestion of remedies.

31. WALSH, B. D. Insects injurious to fruit trees. <Prairie Farmer, 2 May, 1863, [v. 27], n. s., v. 11, p. 276, fig. S.-b., No. 1, p. 9.

Fruit and foliage of pear-trees destroyed by *Capsus oblineatus* [=*Lygus pratensis*]; description and figure of imago; habits, food-plants, and remedies.

32. WALSH, B. D. The ten-striped spearman. <Prairie Farmer, 6 June, 1863, [v. 27], n. s., v. 11, p. 356, fig. S.-b., No. 1, p. 7.

History, ravages, and means against *Doryphora* 10-*lineata*; figure of imago; mentions other injurious *Phytophaga*.

33. WALSH, B. D. The plum-gouger; a new foe of the plum. <Prairie Farmer, 13 June, 1863, [v. 27], n. s., v. 11, pp. 372–373, figs. 1–3. S.-b., No. 1, p. 6.

Habits, description, and figures of *Anthonomus ? prunicida* n. sp. [=*Coccotorus scutellaris*], injurious to plums; comparison with *Conotrachelus nenuphar;* figure of the latter.

34. WALSH, B. D. The plum-gouger. <Prairie Farmer, 11 July, 1863, [v. 28], n. s., v. 12, p. 21, 2 figs. S.-b., No. 1, p. 10.

Distribution and ravages of *Anthonomus prunicida* [=*Coccotorus scutellaris*]; list of insects found on plum-trees; description of *Conotrachelus puncticollis* n. sp. [=*C. geminatus*]; usefulness of *Reduvius raptatorius* [=*Sinea diadema*]; figures *A. prunicida* and *R. raptatorius*.

35. WALSH, B. D. A new fruit foe. <Prairie Farmer, 18 July, 1863, [v. 28], n. s., v. 12, p. 37, fig. S.-b., No. 1., p. 11.

Description and figure of imago of *Epicœrus imbricatus;* injuries to fruit trees and gooseberry-bushes; supposed habits of this and allied species; hibernation of the larva of *Conotrachelus;* description of *C. cratægi* n. sp.

36. WALSH, B. D. Leaf-hopper. <Prairie Farmer, 25 July, 1863, [v. 28], n. s., v. 12, p. 53.

Proconia [=*Oncometopia*] *undata* injurious to grape-vines in southern Illinois; its eggs laid in twigs.

37. WALSH, B. D. Locust borers. <Prairie Farmer, 15 August, 1863, [v. 28], n. s., v. 12, p. 101. S.-b., No. 1, p. 12.

Description and habits of *Clytus* [=*Cyllene*] *robiniæ; Clytus* of *Carya* does not attack *Robinia; Cossus robiniæ* mentioned; larvæ and imagos of *Nitidulidæ* found under decaying bark.

38. WALSH, B. D. Insect friends and insect foes. The twice-stabbed lady-bird. <Prairie Farmer, 1863, [v. 28], n. s., v. 12; 22 August, p. 117, figs. 1, 2; 29 August, p. 133, figs. 3, 4. S.-b., No. 1, pp. 11–12.

Description and figure of imago of *Chilocorus bivulnerus;* figure of larva; destruction of injurious insects by predaceous insects; brief description of and means against *Lytta cinerea* [=*Macrobasis unicolor*], found on potato, English bean, and apple, and *L.* [=*Epicauta*] *vittata*, on potato; figures *Lytta atrata* [=*Epicauta pennsylvanica*], found on aster and potato, and larva-cases of *Solenobia* sp. from under bark of apple-trees; note on allies of *Solenobia*.

39. WALSH, B. D. Observations on certain N. A. Neuroptera, by H. Hagen, M. D., of Kœnigsberg, Prussia; translated from the original French MS., and published by permission of the author, with notes and descriptions of about twenty new N. A. species of Pseudoneuroptera. <Proc. Ent. Soc. Phil., October, 1863, v. 2, pp. 167–272, fig.

Dr. Hagen's comments relate to the species described in No. 24; the author's notes supplement these and describe three (3) new genera and twenty-three (23) new species; for a list of these, see the *Systematic Index;* descriptions of previously described species, with notes on their habits, distribution, etc., are also given; *Bætis interlineata* [=*Siphlurus femoratus*] is proposed

39. WALSH, B. D.—Continued.

(p. 190) in case *B.* [= *S.*] *femorata* Walsh is distinct from *B.* [= *S.*] *femorata* Say; in a note (p. 255) *Ophiogomphus mainensis* n. sp. is described from Packard's manuscript; the venation of the *Odonata* and the terminal abdominal characters of *Sialis infumata* are figured.

40. WALSH, B. D. On certain remarkable or exceptional larvæ, coleopterous, lepidopterous, and dipterous, with descriptions of several new genera and species, and of several species injurious to vegetation, which have been already published in agricultural journals. <Proc. Bost. Soc. Nat. Hist., February, 1864, v. 9, pp. 286–318.

Habits of the larva of *Catalpa lanigera*, *Pelidnota punctata*, *Cratonychus* [= *Melanotus*] *incertus*, and *Xylorycles satyrus*; comparative characters of the larva and imago of *Halisidota antiphola* n. sp. [= *tessellaris*]; description of larva, pupa, and imago of *Sphingicampa* (n. g.) *distigma* n. sp. [= *bicolor*]; characters and affinities of *Dryocampa* [= *Sphingicampa*] *bicolor?*; description of imagos of *Limacodes scapha* and *L.?* [= *Phobetron*] *hyalinus* n. sp., and of larva of the last and *L.?* [= *Phobetron?*] *tetradactylus* n. sp.; description of the larva, pupa, and imago of *Hipparchiscus* n. g. *venustus* n. sp. [= *Aplodes mimosaria*]; habits and description of the larva of an undetermined *Tabanus*, description of the pupa; description of the larva, pupa, and imago of *Midas fulvipes* n. sp., habits of its larva. On pp. 309–318 descriptions of several new species, with brief notes of food-habits, etc., are reprinted from various agricultural journals.

41. WALSH, B. D. On dimorphism in the hymenopterous genus *Cynips*; with an appendix containing hints for a new classification of *Cynipidæ* and a list of *Cynipidæ*, including descriptions of several new species, inhabiting the oak-galls of Illinois. <Proc. Ent. Soc. Phil., March, 1864, v. 2, pp. 443–500, fig.

Detailed observations proving the frequent occurrence of dimorphism in the *Cynipidæ*; *Cynips* [= *Amphibolips*] *aciculata*, a dimorphic form of *C. q. spongifica*; concludes from analogy "that *aciculata* ♀ generates galls which produce by parthenogenesis ♂ *spongifica* exclusively, and that ♀ ♀ *spongifica* coupling in June with these ♂ ♂ oviposit in the same month in the young buds of the oak, the eggs lying dormant till the following spring, when some of the eggs produce ♀ *spongifica* in June, and some ♀ *aciculata* in the autumn or early in the following spring, which last in their turn, as before mentioned, generate ♂ *spongifica* to appear in the following June;" interesting details concerning the history of the group are given; relations between the true gall-flies (*Psenides*) and parasitic *Cynipidæ* (*Inquilinæ*); classification and characters of the same; anatomical structure and homologies of the family; the list includes fifteen (15) species inhabiting the various oaks, with descriptions of their galls and of several new species; seven (7) species of *Inquilinæ* are described; for the new species, see the *Systematic Index*; the figures illustrate the anatomy of the abdomen and ovipositor.

42. WALSH, B. D. The four-humped Curculio. A new foe of the apple. <Valley Farmer. Reprint: <Prairie Farmer, 27 August, 1864, [v. 30], n. s., v. 14, p. 131, 2 figs. S.-b., No. 1, p. 28.

Description and figures of *Anthonomus quadrigibbus*, a foe of the apple; comparison with *Conotrachelus nenuphar* and *Anthonomus pruinicida* [= *Coccotorus scutellaris*].

43. WALSH, B. D. On the pupa of the ephemerinous genus *Bætisca* Walsh. <Proc. Ent. Soc. Phil., August, 1864, v. 3, pp. 200–206, fig.

Description and figures of the pupa of *Bætisca obesa* Say.

44. WALSH, B. D. On certain entomological speculations of the New England school of naturalists. <Proc. Ent. Soc. Phil., August–September, 1864, v. 3, pp. 207–249.

Discussion of statements, chiefly by Prof. L. Agassiz, upon questions in general entomology. The memoir is divided into sections; in the first, the distribution of insects in North America is discussed in opposition to the views of Agassiz; in the second section the Darwinian theory of the origin of species is discussed and some remarks on the variation of several species are added; in the third and fourth sections the statements of Prof. Agassiz regarding the worm-like larva stage of insects and the resemblances between the pupæ of insects and the Crustacea are discussed and criticised; in the fifth section the author argues that the relative rank of the different orders of insects must be determined from a consideration of all the characters of each order and not from the significance of any one character; the sixth section is a review of Dana's classification of insects on the principle of cephalization; and in the seventh section several erroneous statements and generalizations in the same author's paper on classification are pointed out.

45. WALSH, B. D. On phytophagic varieties and phytophagic species. <Proc. Ent. Soc. Phil., November, 1864, v. 3, pp. 403–430.

Many species feed exclusively upon a single food-plant, while other species feed upon many kinds; correlated with this are certain larval or imaginal differences; when these different forms interbreed they are considered the same species and are termed phytophagic varieties; these when separated with a single kind of food-plant form phytophagic races, and these again by a continuation of their isolation form phytophagic species. Phytophagous forms are most abundant where the imago is wingless. *Diapheromera velii*, *Tingis* [=*Gargaphia*] *tiliæ*, and *T.* [=*G.*] *amorphæ* are described as new; the following are mentioned in the remarks upon species and varieties: *Haltica* [=*Disonycha*] *alternata*, *Chrysomela scalaris*, *Clytus* [=*Cyllene*] *robiniæ*, *C.* [=*C.*] *pictus*, *Dryocampa* [=*Sphingicampa*] *bicolor*, *Sphingicampa distigma* [=*bicolor*], *Bombyx* [=*Sericaria*] *mori*, *Halisidota tessellaris*, *H caryæ*, *H. antiphola* [=*tessellaris*], *Cynips* [=*Amphibolips*] *q. spongifica*, *C.* [=*Andricus*] *q. punctata*, *C.* [=*A.*] *q. podagræ*, and *C.* [=*Amphibolips*] *q. inanis*.

46. WALSH, B. D. On the insects, coleopterous, hymenopterous, and dipterous, inhabiting the galls of certain species of willow. Part 1st—Diptera. <Proc. Ent. Soc. Phil., December, 1864, v. 3, pp. 543–644.

Structural characters, habits, metamorphoses, etc., of *Cecidomyidæ*; remarks on the unity of habits in genera; synopsis of cecidomyidous galls of *Salix*; descriptions of new species, their galls and inquilines; for a list of the new species, see the *Systematic Index*. See No. 197 for Part 2d.

47. WALSH, B. D. The borer. <Colman's Rural World. Reprint: <Prairie Farmer, 6 May, 1865, v. 15, p. 355.

Notice of soap as a means against borers.

48. WALSH, B. D. The new potato-bug and its natural history. <Pract. Ent., 30 October, 1865, v. 1, pp. 1–4.

Record of the spread eastwards of *Doryphora 10-lineata*; description of the egg; food-plants, enemies, and means against the same; comparative characters of *D. juncta* and *D. 10-lineata;* species of *Meloidæ* injurious to the potato.

49. [WALSH, B. D.] The joint-worm. <Pract. Ent., 27 November, 1865, v. 1, pp. 11, 12.

Reasons for disbelieving that the joint-worm is the larva of one of the *Chalcididæ*.

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57. [WALSH, B. D.] [Codling moth.] <Pract. Ent., 26 February, 1866, v. 1, p. 34.

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58. [WALSH, B. D.] [*Aphididæ*.] <Pract. Ent., 26 February, 1866, v. 1, p. 34.

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65. W[ALSH], B. D. [Mass of eggs.] <Pract. Ent., 26 March, 1866, v. 1, p. 46.

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66. [WALSH, B. D.] [Apple-tree caterpillar; parasites.] <Pract. Ent., 26 March, 1866, v. 1, p. 46.

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71. WALSH, B. D. [Poplar borer.] <Pract. Ent., 30 April, 1866, v. 1, p. 64.

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73. WALSH, B. D. Popular remedies for noxious insects. <Pract. Ent., 28 May, 1866, v. 1, pp. 71–74.

Criticism of various worthless remedies against injurious insects.

74. WALSH, B. D. [*Serica iricolor* Say.] <Pract. Ent., 28 May, 1866, v. 1, p. 77.

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Answer to inquiry of C. Dadant; slits in pear-twigs caused by *Chloroneura malefica* [=*Empoasca viridescens*]; *Proconia* [=*Oncometopia*] *undata* oviposits in grape-vines.

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Answer to inquiry of A. C. Hammond; *Ægeria* [=*Sannina*] *exitiosa* and an elaterid larva attacking plum-trees; the latter probably attracted by decayed matter, the work of the peach borer.

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Summary of published observations concerning *Asopia costalis*; points which need explanation; probable remedy.

84. WALSH, B. D. Click-beetles. <Pract. Ent., 25 June, 1866, v. 1, p. 83.

Note to W.'s "Click-beetles;" snapping of *Elateridæ*; Jaeger's Life of N. Am. Insects and Emmons' N. Y. Report unreliable.

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88. WALSH, B. D. The new potato-bug. <Pract. Ent., 25 June, 1866, v. 1, pp. 88–89.

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89. WALSH, B. D. [The painted borer.] <Pract. Ent., 25 June, 1866, v. 1, p. 89.

Answer to inquiry of T. C. Wright; sexual difference in the antennæ of *Clytus* [=*Cyllene*] *pictus* bred from hickory.

90. WALSH, B. D. [Bug allied to the chinch-bug.] <Pract. Ent., 25 June, 1866, v. 1, p. 89.

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91. WALSH, B. D. [Canker-worms.] <Pract. Ent., 25 June, 1866, v. 1, p. 89.

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92. WALSH, B. D. [Apple-tree tineid.] <Pract. Ent., 25 June, 1866, v. 1, p. 89.

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93. WALSH, B. D. [Spittle insect.] <Pract. Ent., 25 June, 1866, v. 1, p. 89.

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Answer to inquiry of Dr. Trimble; food-habits of *Orthosoma cylindricum*, [= *brunneum*], *Prionus laticollis*, and *P. imbricornis*.

96. WALSH, B. D. [Canker-worms.] <Pract. Ent., 25 June, 1866, v. 1, p. 90.

Answer to inquiry of F. K. Phœnix; season of oviposition of *Anisopteryx*.

97. WALSH, B. D. [White-pine scale.] <Pract. Ent., 25 June, 1866, v. 1, p. 90.

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98. WALSH, B. D. Doctors differ. <Pract. Ent., 30 July, 1866, v. 1, p. 96.

Criticism of communications in agricultural papers; tanners' oil injurious to trees; sulphur plugged in trees does not protect the leaves; sheep in an orchard do not keep away *Conotrachelus nenuphar*.

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The insect attacking small grains in Georgia is probably a plant-louse.

100. WALSH, B. D. Popular names for insects. <Pract. Ent., 30 July, 1866, v. 1, p. 97.

The use of the same vernacular name for different insects causes uncertainty in identifying and in suggesting means against injurious insects.

101. WALSH, B. D. Scientific names. <Pract. Ent., 30 July, 1866, v. 1, pp. 97–99.

Explains the necessity of using Latin for scientific names.

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Answer to inquiry of C. S. Jackson; habits of an undescribed *Fidia;* injuries to vines by plant-louse (*Aphis vitis?*); enemies of *Aphididæ.*

103. WALSH, B. D. [Wire-worms.] <Pract. Ent., 30 July, 1866, v. 1, p. 100.

Answer to inquiry of A. D. Chesebro; summer fallowing as a means against wire-worms.

104. WALSH, B. D. [Bark-lice.] <Pract. Ent., 30 July, 1866, v. 1, p. 100.

Answer to inquiry of L. E. Harmon; life-history and means against *Coccidæ.*

105. WALSH, B. D. [Tortoise beetles.] <Pract. Ent., 30 July, 1866, v. 1, p. 100.

Answer to inquiry of C. K. Yant; food-plants and larval habits of *Cassididæ.*

106. WALSH, B. D. [Grape bark-louse.] <Pract. Ent., 30 July, 1866, v. 1, p. 100.

Answer to inquiry of J. Bird; description and ravages of *Lecanium* [=*Pulvinaria*] *vitis.*

107. WALSH, B. D. [Plum bark-louse.] <Pract. Ent., 30 July, 1866, v. 1, p. 100.

Answer to inquiry of O. B. Douglas; description of *Lecanium* sp.

108. WALSH, B. D. [Saw-fly eggs.] <Pract. Ent., 30 July, 1866, v. 1, p. 100.

Answer to inquiry of L. D. Morse; position of saw-fly eggs on oak-leaf; characters of the larvæ of *Tenthredinidæ.*

109. WALSH, B. D. [Wheat midge.] <Pract. Ent., 30 July, 1866, v. 1, p. 101.

Answer to inquiry of R. F.; ravages, description, habits, and means against *Cecidomyia* [=*Diplosis*] *tritici.*

110. WALSH, B. D. [Wheat midge.] <Pract. Ent., 30 July, 1866, v. 1, p. 101.

Answer to inquiry of M. H. Boye; *Cecidomyia* [=*Diplosis*] *tritici* not infrequently passes from larval to imaginal state in the same season; means against the same.

111. WALSH, B. D. [Grape galls.] <Pract. Ent., 30 July, 1866, v. 1, p. 101.

Answer to inquiry of J. H. Foster, jr.; description of the galls and larvæ of *Cecidomyidæ.*

112. WALSH. B. D. [Apple-tree web-caterpillar.] <Pract. Ent., 30 July, 1866, v. 1, p. 101.

Answer to inquiry of Marion Hobart; description of the eggs of *Clisiocampa americana;* food-plants of the same and of *Hyphantria textor* [=*cunea*].

113. WALSH, B. D. [Grape-vine beetles.] <Pract. Ent., 30 July, 1866, v. 1, p. 101.

Answer to inquiry of M. S. Hill; food-habits of the larva and imago of *Pelidnota punctata* and of *Anomala lucicola*.

114. WALSH, B. D. [Bot-flies.] <Pract. Ent., 30 July, 1866, v. 1, p. 102.

Answer to inquiry of J. B. Fisher; habits and hosts of several species of *Œstridæ;* parasite infesting *Triplax* [= *Tritoma*] *thoracica*. See No. 153.

115. WALSH, B. D. [Spruce-tree saw-flies.] <Pract. Ent., 30 July, 1866, v. 1, p. 102.

Answer to inquiry of J. Barratt; description of cocoon and imago of *Lophyrus abietis;* means against the same. See Pract. Ent., v. 1, p. 114.

116. WALSH, B. D. [Stings of insects.] <Pract. Ent., 30 July, 1866, v. 1, p. 102.

Answer to inquiry of A. O. Brickman; effects of the stings of bees and other insects.

117. WALSH, B. D. [Blackberry scale.] <Pract. Ent., 30 July, 1866, v. 1, p. 102.

Answer to inquiry of G. E. Brackett; characters of *Lecanium* sp. infesting blackberry.

118. WALSH, B. D. [Eggs in sumach.] <Pract. Ent., 30 July, 1866, v. 1, p. 102.

Answer to inquiry of W. M. Smith; eggs of *Orchelimum* sp.? or *Xiphidium* sp.? in pith of sumach.

119. W[ALSH], B. D. The "new potato-bug" in Maine. <Pract. Ent., 27 August, 1866, v. 1, p. 105.

Extract from Maine Farmer, 26 July, 1866, with comments; the larva of *Lema trilineata* mistaken for that of *Doryphora* 10-*lineata*.

120. WALSH, B. D. [The army-worm.] <Pract. Ent., 27 August, 1866, v. 1, p. 107.

Extract from Western Rural, 21 July, 1866, with comments; army-worm mistaken for canker-worm; need of precision in using popular names.

121. W[ALSH], B. D. [Fire-cure for potato-beetles.] <Pract. Ent., 27 August, 1866, v. 1, pp. 107–108.

Extract from letter from M. S. Hill, with comments; burning straw effective as a means against *Meloidæ* infesting potato-vines; its use against *Doryphora* 10-*lineata;* hot water as a means against the onion-maggot and peach-borer.

122. WALSH, B. D. A new humbug. <Pract. Ent., 27 August, 1866, v. 1, pp. 108–110.

Exposure of proposed remedy against *Cecidomyia destructor;* life-habits of the same.

123. W[ALSH], B. D. The striped bug. <Pract. Ent., 27 August, 1866, v. 1, p. 110, figs. 1, 2.

Extract from Western Rural, 21 July, 1866, with comments; characters, habits, means against, and figures of *Diabrotica vittata* and *D.* 12-*punctata*. See No. 148.

124. WALSH, B. D. [Grape-vine caterpillars.] <Pract. Ent., 27 August, 1866, v. 1, p. 111.

Answer to inquiry of B. Borden; description of the early stages of *Procris* [=*Acoloithus*] *falsarius;* characters and habits of the species of *Procris.*

125. WALSH, B. D. [Squash-vine insects.] <Pract. Ent., 27 August, 1866, v. 1, p. 111.

Answer to inquiry of J. Cope; description and habits of *Epilachna borealis*; habits of *Coccinellidæ;* description and means against the larva of *Trochilium cucurbitæ* [=*Melittia ceto*].

126. WALSH, B. D. [Injurious insects.] <Pract. Ent., 27 August, 1866, v. 1, p. 111.

Answer to inquiry of T. Conard; larval habits and means against *Lema trilineata;* work of the grain plant-louse (*Nectarophora granaria*) and of *Trochilium cucurbitæ* [=*Melittia ceto*]; mention of some of the enemies of bees.

127. WALSH, B. D. [Grape-leaf galls.] <Pract. Ent., 27 August, 1866, v. 1, pp. 111, 112.

Answer to inquiry of E. Daggy; description of the leaf-gall of *Phylloxera vitifoliæ* [=*vastatrix*]; reasons for including it in the *Coccidæ;* dipterous enemy of the same. See No. 154.

128. WALSH, B. D. [Grape-vine insects.] <Pract. Ent., 27 August, 1866, v. 1, p. 112.

Answer to inquiry of W. H. S.; description and means against an undescribed gall on the tendrils and leaf-stalks of a grape-vine; life-habits of parasitic *Chalcididæ.* See No. 160.

129. WALSH, B. D. [Grape-vine beetles.] <Pract. Ent., 27 August, 1866, v. 1, pp. 112, 113.

Answer to inquiry of W. J. Lawrence; food-habits of *Pelidnota punctata* and of *Colaspis flavida.*

130. WALSH, B. D. [*Corydalis cornutus.*] <Pract. Ent., 27 August, 1866, v. 1, p. 113.

Answer to inquiry of J. S. Lewis; natural history and habits of *Corydalis cornutus.*

131. WALSH, B. D. [Tobacco-moth.] <Pract. Ent., 27 August, 1866, v. 1, p. 113.

Answer to inquiry of F. W. Noble; transformations and food-plants of *Sphinx* [=*Protoparce*] *carolina*; food-plants of *S. 5-maculata* [=*P. celeus*].

132. WALSH, B. D. [*Datana ministra.*] <Pract. Ent., 27 August, 1866, v. 1, p. 113.

Answer to inquiry of S. S. Lacy; food-plants and transformations of *Datana ministra.*

133. WALSH, B. D. [Grape-vine and fuschia beetles.] <Pract. Ent., 27 August, 1866, v. 1, p. 113.

Answer to inquiry of F. K. Phœnix; *Colaspis flavida* injurious to grape-vine shoots; *Haltica exapta* [=*carinata*] destructive to fuschia; means against flea-beetles.

134. WALSH, B. D. [Blister-beetles.] <Pract. Ent., 27 August, 1866, v. 1, p. 113.

Answer to inquiry of J. Barber; food-plants of *Lytta marginata* [=*Epicauta cinerea*], *L.* [=*E.*] *vittata*, *L. atrata* [=*E. pennsylvanica*], and *L. cinerea* [=*Macrobasis unicolor*].

135. WALSH, B. D. [*Colaspis flavida; Lema trilineata.*] <Pract. Ent., 27 August, 1866, v. 1, p. 114.

Answer to inquiry of J. F. Benner; *Colaspis flavida* destructive to grape-vines; distribution and method of breeding *Lema trilineata*.

136. WALSH, B. D. [Green worms on gooseberries and currants; *Lema trilineata.*] <Pract. Ent., 27 August, 1866, v. 1, p. 114.

Answer to inquiry of H. Burt; gooseberries and currants injured by larva of a saw-fly?; effects of excessive rain, heat, and drought; food-plants of *Lema trilineata*.

137. WALSH, B. D. [Galls.] <Pract. Ent., 27 August, 1866, v. 1, p. 114.

Answer to inquiry of H. Shimer; note of galls made by *Rhodites radicum*, *Trypeta solidaginis*, and *Thelaxes* [=*Colopha*] *ulmicola*.

138. WALSH, B. D. [Potato and corn insects.] <Pract. Ent., 27 August, 1866, v. 1, p. 114.

Answer to inquiry of T. H. Parsons; scarcity of *Lema trilineata* in Illinois; *Doryphora 10-lineata* destroyed by turkeys, but not by fowls; *Gortyna* sp.? injurious to young Indian corn; rules for breeding insects.

139. WALSH, B. D. [Cocoons on apple-trees.] <Pract. Ent., 27 August, 1866, v. 1, p. 114.

Answer to inquiry of M. S. Hill; description of cocoon and imago of *Attacus cecropia;* the interaction of organisms.

140. WALSH, B. D. Imported insects; the gooseberry saw-fly. <Pract. Ent., 29 September, 1866, v. 1, pp. 117–125, fig.

List of some injurious European insects imported into America and of American insects imported into Europe; reasons for the increase and abundance of noxious European insects in America, and why American species do not flourish in Europe; natural history, description, and means against *Nematus ventricosus* [=*ribesii*]; figure of currant-leaf, showing method of deposition of eggs and work of larva; natural history and description of larva and imago of *Pristiphora grossulariæ* n. sp.; number of saw-flies infesting the gooseberry and currant in Europe.

141. WALSH, B. D. [Borers.] <Pract. Ent., 29 September, 1866, v. 1, p. 126.

Answer to inquiry of W. H. R. Lykins; western distribution of *Clytus* [=*Cyllene*] *robiniæ*.

142. WALSH, B. D. [Wheat midge.] <Pract. Ent., 29 September, 1866, v. 1, p. 126.

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143. WALSH, B. D. [Crickets.] <Pract. Ent., 29 September, 1866, v. 1, p. 126.

Answer to inquiry of Marion Hobart; characters and food-habits of *Acheta* [=*Gryllus*] *abbreviatus*; katydids not exclusively vegetarians; *Œcanthus niveus* found feeding on plant-lice.

144. WALSH, B. D. [Walking-stick.] <Pract. Ent., 29 September, 1866, v. 1, p. 126.

Answer to inquiry of L. W. Taylor; characters and habits of *Spectrum* [=*Diapheromera*] *femorata*.

145. WALSH, B. D. [Apple-tree insects.] <Pract. Ent., 29 September, 1866, v. 1, p. 126.

Answer to inquiry of H. B. Beegle; characters and food-plants of *Limenitis ursula*; description and food-plants of the larva of *Lagoa opercularis*; characters of the imago.

146. WALSH, B. D. [Mites on grasshoppers.] <Pract. Ent., 29 September, 1866, v. 1, p. 126.

Answer to inquiry of W. Riddell; *Astoma* [=*Trombidium*] *locustarum* infesting *Caloptenus femur-rubrum*.

147. W[ALSH], B. D. Grasshoppers and locusts. <Pract. Ent., October, 1866, v. 2, pp. 1–5, 22.

Description, migration, and ravages of *Caloptenus spretus*; limits of its range and means of preventing its increase; confusion caused by the use of popular names of insects. On p. 22 a "note," accidentally omitted, gives the comparative length of the wing-covers and antennæ of *Caloptenus spretus* and *C. femur-rubrum*.

148. W[ALSH], B. D. The striped cucumber-bug. <Pract. Ent., October, 1866, v. 2, p. 5.

Diabrotica vittata attacks German asters. See No. 123.

149. W[ALSH], B. D. Fire-blight. <Pract. Ent., October, 1866, v. 2, p. 7.

Extract from Horticulturist, with comments; cause of fire-blight unknown; not produced by *Scolytus* [=*Xyleborus*] *pyri*.

150. W[ALSH], B. D. The Hessian fly. <Pract. Ent., October, 1866, v. 2, p. 7.

Extract from Colman's Rural World, with comments; late sowing as a means against *Cecidomyia destructor*.

151. [WALSH, B. D.] [Injurious caterpillars; plant-lice enemies.] <Pract. Ent., October, 1866, v. 2, pp. 7–8.

Answer to inquiry of T. McGraw; habits, descriptions, and food-plants of larva of *Dryocampa senatoria* and of *Datana ministra*; food-habits of larva allied to *D. ministra*; description and habits of larva of *Scymnus* sp.; *S. hæmorrhous?* bred from gall of *Thelaxes* [=*Colopha*] *ulmicola*.

152. [WALSH, B. D.] [Tomato-worm.] <Pract. Ent., October, 1866, v. 2, p. 8.

Answer to inquiry of A. A. Jackson; description of the larva and pupa of *Protoparce celeus*; food-plants and harmlessness of the larva.

153. [WALSH, B. D.] [Dipterous larva on swallows.] <Pract. Ent., October, 1866, v. 2, p. 8.

Answer to inquiry of J. B. Fisher; larvæ found *on* swallows (see No. 114) belong to the *Muscidæ* and not to the *Œstridæ;* extract from letter of Osten Sacken on larval habits of *Muscidæ* found *with* birds.

154. [WALSH, B. D.] [Bark-louse enemy.] <Pract. Ent., October, 1866, v. 2, p. 8.

Answer to inquiry of E. Daggy; see No. 127; according to Osten Sacken the bark-louse enemy belongs to *Leucopis;* systematic position of the genus.

155. [WALSH, B. D.] [Parasitized tomato-worm.] <Pract. Ent., October, 1866, v. 2, pp. 8–9.

Answer to inquiry of T. C. Wright; habits of *Microgaster*, parasitic on *Protoparce celeus;* habits of ichneumonized larvæ.

156. [WALSH, B. D.] [Beetles on buttercup and azalea.] <Pract. Ent., October, 1866, v. 2, p. 9.

Answer to inquiry of C. H. Peck; identification of *Galeruca* [=*Adimonia*] *rufosanguinea*, found on *Ranunculus acris*, and of *Prasocuris varipes* on *Azalea nudiflora;* synoptic table, by J. L. Leconte, of the species of *Prasocuris.*

157. [WALSH, B. D.] [Flying-bug.] <Pract. Ent., October, 1866, v. 2, p. 9.

Answer to inquiry of E. E. Sheldon; *Aphodius* mistaken for *Cecidomyia destructor.*

158. [WALSH, B. D.] [Parasitic cocoon.] <Pract. Ent., October, 1866, v. 2, p. 9.

Answer to inquiry of H. W. Howarth; description of cocoons made by *Microgaster* and *Pezomachus;* habits of *Ichneumonidæ.*

159. [WALSH, B. D.] [Oak-bark louse.] <Pract. Ent., October, 1866, v. 2, p. 9.

Answer to inquiry of T. Meehan; undetermined *Coccus* on red-oak.

160. [WALSH, B. D.] [Grape-galls.] <Pract. Ent., October, 1866, v. 2, p. 9.

Answer to inquiry of W. H. S.; see No. 128; larva of *Leucopis* sp., an enemy to grape-vine gall-louse; probable identity of the maker of the tendril and leaf-galls; varieties of grape infested by *Phylloxera vastatrix.*

161. [WALSH, B. D.] ["Saddle-back."] <Pract. Ent., October, 1866, v. 2, p. 9.

Answer to inquiry of T. M. Harvey; food-plants, description, and urticating properties of *Empretia stimulea.*

162. [WALSH, B. D.] [Corn-worm.] <Pract. Ent., October, 1866, v. 2, p. 9.

Answer to inquiry of J. B. Ellis; method of work of two lepidopterous larvæ.

163. [WALSH, B. D.] [Insects named.] <Pract. Ent., October, 1866, v. 2, p. 10.

Answer to inquiry of W. C. Fish; comparative characters of *Entilia sinuata* and *E.* [=*Publilia*] *concava.*

164. [WALSH, B. D.] [Grape insects.] <Pract. Ent., October, 1866, v. 2, p. 10.

Answer to inquiry of J. H. Garman; description and habits of larva of *Procris* [= *Harrisina*] *americana*; *Proconia* [= *Oncometopia*] *undata* and several species of *Erythroneura* [= *Typhlocyba*] as grape enemies.

165. [WALSH, B. D.] [*Datana ministra.*] <Pract. Ent., October, 1866, v. 2, p. 10.

Answer to inquiry of J. B.; increase of injuries caused by *Datana ministra*; distinctive characters of the larvæ of *Geometridæ*.

166. [WALSH, B. D.] [*Iulus marginatus.*] <Pract. Ent., October, 1866, v. 2, p. 10.

Answer to inquiry of T. Wiggins; characters and food of *Iulus* [= *Spirobolus*] *marginatus*.

167. [WALSH, B. D.] [Midge.] <Pract. Ent., October, 1866, v. 2, p. 10.

Answer to inquiry of W. G. Morris; characters and habits of the larva and imago of *Chironomus* sp.

168. [WALSH, B. D.] [Rat-tailed larva.] <Pract. Ent., October, 1866, v. 2, p. 10.

Answer to inquiry of J. A. Lapham; characters and habitats of the larvæ of rat-tailed *Syrphidæ*.

169. [WALSH, B. D.] [Beetle on thistle.] <Pract. Ent., October, 1866, v. 2, p. 10.

Answer to inquiry of W. S. Robertson; characters and food-plants of *Phyllobrotica* [= *Diabrotica*] *longicornis*.

170. [WALSH, B. D.] [Grape-vine *Aphis.*] <Pract. Ent., October, 1866, v. 2, p. 10.

Answer to inquiry of H.; grape-vine injured by *Aphis vitis*.

171. W[ALSH], B. D. The new potato-bug. <Pract. Ent., November, 1866, v. 2, pp. 13–16, fig.

Eastern progress of *Doryphora* 10-*lineata*; rate of travel; hand-picking the only effective remedy; description of a horse machine for their destruction; pecuniary loss inflicted by the species.

172. W[ALSH], B. D. The canker-worm <Pract. Ent., November, 1866, v. 2, p. 16.

Tarring trees effective against *Paleacrita vernata*.

173. W[ALSH], B. D. The canker-worm again. <Pract. Ent., November, 1866, v. 2, pp. 16–17.

Critical review of article in New England Farmer; value of tarring as a means against *Paleacrita vernata*.

174. WALSH, B. D. Notes by Benj. D. Walsh. <Pract. Ent., November, 1866, v. 2, pp. 19–20.

Remarks on statement of H. Shimer in his paper, "The grape leaf gall-coccus" (Pract. Ent., pp. 17–19); number of eggs to each ♀; tendril and leaf-galls probably produced by the same insect; old leaves entirely free from bark-lice by the end of summer; characters of the pupa of *Leucopis*; systematic position and food-habits of *Thysanoptera*; criticism of paper by H. Shimer in Prairie Farmer, 3 November, 1861.

175. W[ALSH], B. D. The striped bug. <Pract. Ent., November, 1866, v. 2, p. 20.

Remarks on note by A.; effects of plaster as a means against *Diabrotica vittata*.

176. [WALSH, B. D.] [Currant insects; *Psocus venosus*.] <Pract. Ent., November, 1866, v. 2, p. 20.

Answer to inquiry of I. Hicks; occurrence of *Pristiphora grossulariæ* in the Eastern States; *Ellopia* [=*Eufitchia*] *ribearia* injurious to currant; date of introduction of "sulphur-cure" on peach-trees; characters and habits of *Psocus venosus*.

177. [WALSH, B. D.] [Worm in apple.] <Pract. Ent., November, 1866, v. 2, pp. 20–21.

Answer to inquiry of C. Ward; description and ravages of larva of *Trypeta pomonella*?

178. [WALSH, B. D.] [Insects attracted to light.] <Pract. Ent., November, 1866, v. 2, p. 21.

Answer to inquiry of Practical Pomologist; conditions favorable for attracting insects to light; kinds most frequently attracted; the proportion of injurious species attracted.

179. [WALSH, B. D.] [Zebra caterpillar.] <Pract. Ent., November, 1866, v. 2, p. 21.

Answer to inquiry of J. H. Parsons; description of the larva of *Mamestra picta*; times of transformation.

180. [WALSH, B. D.] [Inquiries answered.] <Pract. Ent., November, 1866, v. 2, p. 21.

Answer to inquiry of J. Pettit; identification of several beetles; galls on golden-rod made by *Euryptychia saligneana* and *Trypeta solidaginis*; characters of short-winged form of *Micropus* [=*Blissus*] *leucopterus*; its occurrence in Canada.

181. [WALSH, B. D.] [Worm in corn.] <Pract. Ent., November, 1866, v. 2, pp. 21–22.

Answer to inquiry of J. B. Ellis; description of larva, habits, transformations, and means against an undetermined noctuid.

182. [WALSH, B. D.] [Bag-worms.] <Pract. Ent., November, 1866, v. 2, p. 22.

Answer to inquiry of C. P. Wickersham; characters and synonymy of *Thyridopteryx ephemeræformis*.

183. [WALSH, B. D.] [Ichneumon cocoons.] <Pract. Ent., November, 1866, v. 2, p. 22.

Answer to inquiry of S. A. N.; characters of cocoons of *Microgaster* sp.?

184. WALSH, B. D. Note. <Proc. Ent. Soc. Phil., December, 1866, v. 5, p. 260.

Withdraws assertion attributed to C. R. Osten Sacken.

185. W[ALSH], B. D. The old-fashioned potato-bugs. <Pract. Ent., December, 1866, v. 2, pp. 25–27, figs.

Natural history and means against *Lema trilineata*, *Lytta* [=*Epicauta*] *vittata*, *L. atrata* [=*E. pennsylvanica*], *L. marginata* [=*E. cinerea*], and *L. cinerea* [=*Macrobasis unicolor*]; figures *L. trilineata* and *E. vittata*.

186. W[ALSH], B. D. Klippart's wheat plant. <Pract. Ent., December, 1866, v. 2, pp. 27–29.

Adverse criticism of the entomological portion of the above-named book.

187. W[ALSH], B. D. Trimble's insect enemies of fruit and fruit trees. <Pract. Ent., December, 1866, v. 2, pp. 29–30.

Favorable review of the above-named book.

188. W[ALSH], B. D. Answer to the above, by B. D. W. <Pract. Ent., December, 1866, v. 2, pp. 31–33, figs.

Answers to questions asked in J. S. Houghton's "Insects in the Orchard" (Pract. Ent., pp. 30–31); food-habits and hibernation of *Conotrachelus nenuphar*; comparative characters and figures of *Aspidiotus conchiformis* [=*Mytilaspis pomorum*] and *Coccus harrisii* [=*Chionaspis furfurus*]; natural history of *C. harrisii*; means against and enemies of the two species; figures *Chilocorus bivulnerus* and *Hippodamia* [=*Megilla*] *maculata;* food-habits and synonymy of *Lytta* [=*Pomphopœa*] *sayi;* flowing as a means against root-feeding insects; inefficacy of salt, lime, ashes, etc., against the same; insects attacking evergreens not likely to injure fruit trees; cannibal habits of spiders; habits of bees and wasps.

189. [WALSH, B. D.] [Cicada; gooseberry-worm.] <Pract. Ent., December, 1866, v. 2, p. 33.

Answer to inquiry of M. S. Hill; *Cicada* [=*Tibicen*] *septendecim* compared with an undescribed species; ravages of *Pristiphora grossulariæ?* on gooseberry bushes.

190. [WALSH, B. D.] [*Vespidæ.*] <Pract. Ent., December, 1866, v. 2, pp. 33, 34.

Answer to inquiry of M. Hobart; life-habits of *Vespidæ.*

191. [WALSH, B. D.] [Meal-worms: Timber-borers.] <Pract. Ent., December, 1866, v. 2, p. 34.

Answer to inquiry of M. C. D.; characters, food-habits, and means against *Tenebrio molitor* and *T. obscurus;* characters of *Ptinus brunneus* infesting pine timber; corrosive sublimate as a means against timber insects.

192. [WALSH, B. D.] [Corn-worm.] <Pract. Ent., December, 1866, v. 2, p. 34.

Answer to J. B. Ellis; number of broods of *Heliothis armigera* in the Northern and Southern States.

193. [WALSH, B. D.] [Thousand-legged worms.] <Pract. Ent., December, 1866, v. 2, pp. 34–35, fig.

Answer to inquiry of G. W. Robinson; description and figure of *Iulus multistriatus* n. sp. [=*Cambala annulata*]; habits and means against the same.

194. [WALSH, B. D.] [Cranberry-galls, etc.] <Pract. Ent., December, 1866, v. 2, p. 35.

Answer to inquiry of W. C. Fish; occurrence of galls made by *Cecidomyia* sp. on leaves of cranberry; identification of several insects.

195. [WALSH, B. D.] Another humbug. <Pract. Ent., December, 1866, v. 2, p. 35.

Extract, with comments, from Cultivator and Country Gentleman, 22 November, 1866, exposing worthlessness of P. B. Sheldon's composition for destroying borers.

196. [WALSH, B. D.] Notices. <Pract. Ent., December, 1866, v. 2, p. 35.

Mention of several agricultural journals.

197. WALSH, B. D. On the insects, coleopterous, hymenopterous, and dipterous, inhabiting the galls of certain species of willow. Part 2d and last. <Proc. Ent. Soc. Phil., December, 1866–January, 1867, v. 6, pp. 223–288.

See No. 46 for Part 1st. Supplementary notes on the *Cecidomyidæ* (gall-makers and guest-flies); criticism of statements of Fitch and Harris; discussion of structure and habits of *Tenthredinidæ* and insects generally; synopsis of tenthredinidous willow-galls; descriptions of the galls, their makers and inquilines; for the new species described, see the *Systematic Index*; remarks on species and varieties; figures fore-wings of *Tenthredo* and *Ichneumon*.

198. W[ALSH], B. D. Plant-lice—their friends and enemies. <Pract. Ent., January, 1867, v. 2, pp. 37–44, figs.

Method of work and mode of reproduction of *Aphididæ*; their relations to ants; plant-lice enemies; figures *Aphis mali* and several enemies of plant-lice; means against *Aphididæ*.

199. W[ALSH], B. D. Birds *versus* insects. <Pract. Ent., January, 1867, v. 2, pp. 44–47.

Insectivorous birds not necessarily beneficial; a bird must be shown to eat at least thirty (30) times as many injurious insects as it does beneficial ones before it can be considered useful.

200. [WALSH, B. D.] [Insects named.] <Pract. Ent., January, 1867, v. 2, p. 47.

Answer to inquiry of J. Pettit; identification of many species, mostly beetles; characters and food-habits of *Clerus nigripes* [=*4-guttatus*]; habitat of *Leptura capitata* and *Tingis* [=*Corythuca*] *ciliata*.

201. [WALSH, B. D.] [Apple-tree insects.] <Pract. Ent., January, 1867, v. 2, p. 47.

Answer to inquiry of M. Hobart; increasing distribution of *Aspidiotus conchiformis* [=*Mytilaspis pomorum*]; enemies of the same; characters of the eggs of *Aphis mali*.

202. [WALSH, B. D.] [Work in entomology.] <Pract. Ent., January, 1867, v. 2, p. 47.

Answer to G. Scarborough; advice for the study of entomology by beginners.

203. W[ALSH], B. D. The true *Thrips* and the bogus *Thrips*. <Pract. Ent., February, 1867, v. 2, pp. 49–52, figs.

Natural history, characters, habits, and figures of *Thrips* sp.; characters of the larva and imago of *Haltica chalybea*; figure of imago; habits of species of *Erythroneura* [=*Typhlocyba*]; description and figures of *E.* [=*T.*] *vitis*.

204. W[ALSH], B. D. Universal remedies. <Pract. Ent., 1867, v. 2, p. 52.

Exposure of proposed universal remedy against fruit-tree insects.

205. W[ALSH], B. D. Poisoning noxious insects. <Pract. Ent., February, 1867, v. 2, pp. 52–53.

Sugaring with poison as a means against *Noctuidæ*.

206. W[ALSH], B. D. Remarks by B. D. W. <Pract. Ent., February, 1867, v. 2, p. 54.

Comments on S. S. Rathvon's "Bag-worms" (Pract. Ent., pp. 53–54); distribution and food-plants of *Thyridopteryx ephemeræformis*.

207. W[ALSH], B. D. Habits of the tree-cricket (*Œcanthus niveus*). <Pract. Ent., February, 1867, v. 2, p. 54, figs.

Characters of eggs and method of deposition; characters, food-habits, and figures of the imago.

208. [WALSH, B. D.] Importing European parasites. <Pract. Ent., February, 1867, v. 2, pp. 54–55.

Imaginary correspondence between Asa Fitch and John Curtis on the importation of parasitic insects.

209. [WALSH, B. D.] [Screw-worm.] <Pract. Ent., February, 1867, v. 2, p. 55.

Answer to inquiry of L. D. Morse; undetermined larva found in osage-orange seed; hominivorous habits of *Lucilia macellaria*.

210. [WALSH, B. D.] [*Attacus cecropia*.] <Pract. Ent., February, 1867, v. 2, p. 55.

Answer to inquiry of T. T. Smith; characters of larva and imago of *Attacus cecropia*; food-plants; method of issuance from cocoon; nature of fluid discharged when emerging from cocoon.

211. [WALSH, B. D.] [Apple-worm.] <Pract. Ent., February, 1867, v. 2, pp. 55–56.

Answer to inquiry of W. C. Fish; characters of the pupa of *Sciara mali*.

212. [WALSH, B. D.] [Oak-gall.] <Pract. Ent., February, 1867, v. 2, p. 56.

Answer to inquiry of W. Muir; characters of an undetermined cynipid gall on oak.

213. [WALSH, B. D.] [*Cicada*: Grape-vine *Procris*.] <Pract. Ent., February, 1867, v. 2, p. 56.

Answer to inquiry of M. S. Hill; variations in the imago of *Cicada* [= *Tibicen*] *septendecim* and in the song of the same; characters of the larva of *Procris* [= *Harrisina*] *americana*.

214. [WALSH, B. D.] [*Nitidulidæ*.] <Pract. Ent., February, 1867, v. 2, p. 56.

Answer to inquiry of W. H. S.; food-habits of *Ips fasciatus* and *Nitidula bipustulata*.

215. [WALSH, B. D.] [Turnip enemy.] <Pract. Ent., February, 1867, v. 2, p. 56.

Answer to inquiry of F. T. Pember; characters and food-habits of *Polydesmus complanatus*.

216. [WALSH, B. D.] [Wheat midge.] <Pract. Ent., February, 1867, v. 2, p. 57.

Answer to inquiry of C. P. Wickersham; nature of the membrane enveloping the full-grown larva of *Diplosis tritici*.

217. [WALSH, B. D.] [Queries answered.] <Pract. Ent., February, 1867, v. 2, p. 57.

Answer to inquiry of R. Middleton; toads, frogs, and spiders beneficial; effects of the stings of various insects.

218. [WALSH, B. D.] [Scales.] <Pract. Ent., February, 1867, v. 2, p. 57.

Answer to inquiry of M. M. S.; characters and ravages of scales on oleander and orange; means against *Coccidæ*.

219. [WALSH, B. D.] [Hundred-legged worm.] <Pract. Ent., February, 1867, v. 2, p. 57.

Answer to inquiry of S. P. Monks; identification of *Polydesmus virginiensis*; distinctive characters of Myriapoda.

220. [WALSH, B. D.] [Bark-borers.] <Pract. Ent., February, 1867, v. 2, pp. 57–58.

Answer to inquiry of C. V. Riley; synoptic table and food-habits of several species of *Scolytus*; descriptions of *S. fagi* n. sp. and *S. caryæ* n. sp. [=*4-spinosus*].

221. [WALSH, B. D.] [Aleurodes.] <Pract. Ent., February, 1867, v. 2, p. 58.

Answer to inquiry of D. F. C.; characters and food-plants of an undescribed species of *Aleurodes*.

222. W[ALSH], B. D. The critic criticized. <Pract. Ent., February, 1867, v. 2, p. 58. Answer [by C. V. Riley]. <Prairie Farmer, 16 March, 1867, [v. 35], n. s., v. 19, p. 169. S.-b., No. 2, p. 58.

Criticism of article by C. V. Riley (Prairie Farmer, 19 January, 1867, [v. 35], n. s., v. 19, p. 37).

223. [WALSH, B. D.] Obituary. <Pract. Ent., February, 1867, v. 2, p. 58.

Notice of the late Brackenridge Clemens.

224. W[ALSH], B. D. Wire-worms. <Pract. Ent., March, 1867, v. 2, pp. 61–62, figs.

Characters of Myriapoda and larvæ of *Elateridæ*, popularly called wire-worms; food-habits of larva of *Ludius attenuatus*; figure of larva and imago of the same; confusion caused by the use of the term "wire-worms" by correspondents of the Country Gentleman.

225. W[ALSH], B. D. Imported insects.—The onion-fly. <Pract. Ent., March, 1867, v. 2, p. 64, figs.

Figures of larva and imago of *Anthomyia ceparum* and of *Ortalis* [=*Tritoxa*] *flexa*; comparative characters of imagos; distribution and means against the two species.

226. W[ALSH], B. D. [Means against cut-worms.] <Pract. Ent., March, 1867, v. 2, p. 66.

Recommends, in reply to J. Townley's inquiry, sugaring with poisoned molasses as a means against cut-worms.

227. W[ALSH], B. D. Entomology indeed run mad. <Pract. Ent., March, 1867, v. 2, pp. 66, 67.

Reprint of "The bud-worm" (N. C. Rural Journ., September, 1866), with criticism and correction of some of the errors.

228. W[ALSH], B. D. The imported gooseberry saw-fly. <Pract. Ent., March, 1867, v. 2, p. 67.

Reason for re-appearance in June and for the non-appearance of the second brood of *Nematus ventricosus* [=*ribesii*] in New York in 1866.

229. W[ALSH], B. D. Tree cut-worms. <Pract. Ent., March, 1867, v. 2, p. 67.

Cut-worm described (Pract. Ent., v. 1, pp. 85–86) identified as *Hadena chenopodii* [=*Mamestra trifoli*]. See Nos. 85, 281.

230. W[ALSH], B. D. Doctoring fruit trees again. <Pract. Ent., March, 1867, v. 2, pp. 67, 68.

Extract from Industrial Gazette, 15 December, 1866, with criticism; calomel, sulphur, and substances insoluble in water not absorbed into the circulation of trees.

231. W[ALSH,] B. D. The grape-vine *Colaspis* (*Colaspis flavida* Say). <Pract. Ent., March, 1867, v. 2, pp. 68–69, fig.

Ravages of *Colaspis flavida;* comparison with allied species; remarks on the law of priority and on certain insects becoming suddenly injurious; figures *C. flavida.*

232. W[ALSH], B. D. Another universal remedy. <Pract. Ent., March, 1867, v. 2, p. 69.

Extract from reprint (?) in Cultivator and Country Gentleman, 10 January, 1867, with criticism of proposed remedy against insects injurious to trees.

233. W[ALSH], B. D. Borers. The plug-ugly theory. <Pract. Ent., March, 1867, v. 2, p. 69.

Criticism of theory that a plug driven into a hole in a tree is death to borers.

234. W[ALSH], B. D. A mass of mistakes. <Pract. Ent., March, 1867, v. 2, p. 70.

Correction of errors in "Remedy for the borer" (Prairie Farmer, 9 February, 1867).

235. W[ALSH], B. D. Hop-growing in the West. <Pract. Ent., March, 1867, v. 2, p. 70.

Extract from Country Gentleman, 31 January, 1867, showing ravages of *Phorodon humuli* in Vermont; danger of its introduction into the Western States.

236. W[ALSH], B. D. Thousand-legged worms. <Pract. Ent., March, 1867, v. 2, p. 70.

Extract from letter of J. H. Parsons, with comments; injuries to onions by *Iulus multistriatus* [=*Cambala annulata*]; *I. multistriatus* undistinguishable from *I. cæruleo-cinctus.*

237. W[ALSH], B. D. Fighting the Curculio. <Pract. Ent., March, 1867, v. 2, p. 71.

Extract from Genesee Farmer for 1853, p. 125; ridicule of additions to "jarring" as a means against *Conotrachelus nenuphar*.

238. W[ALSH], B. D. ["Bushels of butterflies."] <Pract. Ent., March, 1867, v. 2, p. 71.

Extract from Cincinnati Gazette, August, 1866, with comments; occurrence of dead imagos of *Attacus cecropia?* in large numbers ("10 bushels") in Newport, Ohio; food-plants of the larva.

239. [WALSH, B. D.] [Scab on potato.] <Pract. Ent., March, 1867, v. 2, pp. 71–72.

Answer to inquiry of T. L. J. Baldwin; account of blister-like scabs on potatoes, probably caused by *Sciara* sp.; means against the same.

240. [WALSH, B. D.] [Mass of eggs.] <Pract. Ent., March, 1867, v. 2, p. 72.

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241. [WALSH, B. D.] [Food of katydids.] <Pract. Ent., March, 1867, v. 2, p. 72.

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242. [WALSH, B. D.] [Caterpillar nest on wild cherry.] <Pract. Ent. March, 1867, v. 2, p. 72.

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243. [WALSH, B. D.] [Insect eggs.] <Pract. Ent., March, 1867, v. 2, p. 72.

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244. [WALSH, B. D.] [*Attacus polyphemus*, etc.] <Pract. Ent., March, 1867, v. 2, pp. 72–73.

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245. [WALSH, B. D.] [*Cossus robiniæ*, etc.] <Pract. Ent., March, 1867, v. 2, p. 73.

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246. [WALSH, B. D.] [Museum pests.] <Pract. Ent., March, 1867, v. 2, p. 73.

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247. [WALSH, B. D.] [Katydid eggs.] <Pract. Ent., March, 1867, v. 2, p. 73.

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248. [WALSH, B. D.] [Squash-vine borer.] <Pract. Ent., March, 1867, v. 2, p. 73.

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249. [WALSH, B. D.] [Apple-twig borers, etc.] <Pract. Ent., March, 1867, v. 2, pp. 73–74.

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250. [WALSH, B. D.] [Hessian fly.] <Pract. Ent., March, 1867, v. 2, p. 74.

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251. [WALSH, B. D.] [Tree-cricket.] <Pract. Ent., March, 1867, v. 2, p. 74.

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252. [WALSH, B. D.] [Tineids in bee-hives.] <Pract. Ent., March, 1867, v. 2, p. 74.

Answer to inquiry of J. H. Hunt; characters of case and larva of undetermined tineid.

253. W[ALSH], B. D. Jumping to conclusions. <Pract. Ent., March, 1867, v. 2, p. 74.

Criticism of article "THE potato-bug" (Wisconsin Farmer, 2 March, 1867).

254. W[ALSH], B. D. The common Curculio and its allies. <Pract. Ent., April, 1867, v. 2, pp. 75–81.

Characters of the *Rhyncophora*; characters, ravages, life-history, food-habits, number of broods, and means against *Conotrachelus nenuphar*; ravages, habits, characters, and means against *Anthonomus prunicida* [= *Coccotorus scutellaris*] and *A. 4-gibbus*; mention of additional injurious weevils; comparative characters of the three species.

255. W[ALSH], B. D. Remarks by B. D. W. <Pract. Ent., April, 1867, v. 2, p. 82.

Comments on C. V. Riley's article, "The imported apple-tree bark-louse" (Prairie Farmer, 23 March, 1867, [v. 35], n. s., v. 19, p. 184).

256. W[ALSH], B. D. Confessing the corn. <Pract. Ent., April, 1867, v. 2, p. 82.

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257. [WALSH, B. D.] [*Bibio albipennis*.] <Pract. Ent., April, 1867, v. 2, p. 83.

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258. [WALSH, B. D.] [Lice on horses.] <Pract. Ent., April, 1867, v. 2, p. 83.

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259. [WALSH, B. D.] [Cocoon on wild cherry.] <Pract. Ent., April, 1867, v. 2, p. 83.

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260. [WALSH, B. D.] [Lepidopterous case-bearer.] <Pract. Ent., April, 1867, v. 2, p. 83.

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261. [WALSH, B. D.] ["Thousand-legged worms."] <Pract. Ent., April, 1867, v. 2, p. 83.

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262. [WALSH, B. D.] [Toads: Glorified squash-bug.] <Pract. Ent., 1867, v. 2, p. 83.

Answer to inquiry of F. C. Hill; food of toads; poisonousness of *Prionotus novenarius* [= *Prionidus cristatus*].

263. [WALSH, B. D.] [Galls on blackberry.] <Pract. Ent., April, 1867, v. 2, pp. 83–84.

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264. [WALSH, B. D.] [Bark-lice.] <Pract. Ent., April, 1867, v. 2, p. 84.

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265. [WALSH, B. D.] [Plant-lice.] <Pract. Ent., April, 1867, v. 2, p. 84.

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266. [WALSH, B. D.] [Bag-worms.] <Pract. Ent., April, 1867, v. 2, pp. 84–85.

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267. [WALSH, B. D.] [Insects injurious to grape.] <Pract. Ent., April, 1867, v. 2, p. 85.

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268. [WALSH, B. D.] [*Attacus promethea*.] <Pract. Ent., April, 1867, v. 2, p. 85.

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269. [WALSH, B. D.] [Borer in hickory.] <Pract. Ent., April, 1867, v. 2, p. 85.

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270. [WALSH, B. D.] [Apple-tree plant-lice.] <Pract. Ent., April, 1867, v. 2, p. 85.

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271. [WALSH, B. D.] [Tulip-tree bark-louse: Basket-worm.] <Pract. Ent., April, 1867, v. 2, p. 85.

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272. W[ALSH], B. D. The grape-vine Fidia. (*Fidia viticida*, new species.) <Pract. Ent., May, 1867, v. 2, pp. 87–88, fig.

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273. W[ALSH], B. D. Enemies of the rice crop. <Pract. Ent., May, 1867, v. 2, p. 89.

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274. [WALSH, B. D.] The canker-worm once more. <Pract. Ent., May, 1867, v. 2, p. 89. Abstract: <Cultivator and Country Gentleman, 6 June, 1867, v. 29, p. 370.

Extract from and review of W. G. C.'s "My trials with the canker-worms: remedy" (Iowa Homestead, 13 March, 1867); sorghum as a means against *Anisopteryx.*

275. W[ALSH], B. D. None so blind as those who shut their eyes. <Pract. Ent., May, 1867, v. 2, pp. 89–90.

Criticism of error by editors of agricultural papers; rate of eastward progress of *Doryphora 10-lineata.*

276. W[ALSH], B. D. Self-taught entomologists. <Pract. Ent., May, 1867, v. 2, pp. 91–92.

Criticism of misstatements found in agricultural papers; first occurrence of *Doryphora 10-lineata* in Illinois in 1864.

277. W[ALSH], B. D. Pear-tree and apple-tree insects. <Pract. Ent., May, 1867, v. 2, pp. 92–93.

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278. W[ALSH], B. D. More universal remedies. <Pract. Ent., May, 1867, v. 2, p. 93.

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279. W[ALSH], B. D. Hop-growing in the West. <Pract. Ent., May, 1867, v. 2, pp. 93–94.

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280. W[ALSH], B. D. The wheat midge—jumping to a conclusion. <Pract. Ent., May, 1867, v. 2, p. 94.

Extract, with comment, from Maryland Farmer and Mechanic, August, 1865; *Diplosis tritici* not infested with parasites in America; food-habits of *Thrips.*

281. W[ALSH], B. D. Tree cut-worms. <Pract. Ent., May, 1867, v. 2, p. 94.

"Dark-sided cut-worm" an *Agrotis* and not *Hadena chenopodii* [= *Mamestra trifolii*]. See Nos. 85, 229.

282. W[ALSH], B. D. Quacks and physicians. <Pract. Ent., May, 1867, v. 2, p. 95.

Criticism of proposed universal remedy against insects injurious to the rose (Western Rural, 30 March, 1867).

283. W[ALSH], B. D. The ephemeron or May-fly. <Pract. Ent., May, 1867, v. 2, p. 95.

Length of duration of life of *Ephemeridæ*.

284. W[ALSH], B. D. A groundless fear. <Pract. Ent., May, 1867, v. 2, p. 95.

Extract from Mo. Rept. Bureau Agric., February, 1867, p. 62; food-habits of larva and imago of *Lytta atrata* [= *Epicauta pennsylvanica*]; places of oviposition.

285. W[ALSH], B. D. Fire-blight. <Pract. Ent., May, 1867, v. 2, p. 96.

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286. [WALSH, B. D.] [Insect eggs.] <Pract. Ent., May, 1867, v. 2, p. 96.

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287. [WALSH, B. D.] [*Attacus cecropia.*] <Pract. Ent., May, 1867, v. 2, p. 96.

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288. [WALSH, B. D.] [Twig pruners.] <Pract. Ent., May, 1867, v. 2, p. 96.

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289. [WALSH, B. D.] [Blister-beetles.] <Pract. Ent., May, 1867, v. 2, p. 97.

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290. [WALSH, B. D.] [Means against Curculio: *Œstridæ*.] <Pract. Ent., May, 1867, v. 2, p. 97.

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291. [WALSH, B. D.] [Insect eggs.] <Pract. Ent., May, 1867, v. 2, p. 97.

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292. W[ALSH], B. D. The wheat midge. <Pract. Ent., June, 1867, v. 2, pp. 99–101.

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293. W[ALSH], B. D. The new or Colorado potato-bug. <Pract. Ent., June, 1867, v. 2, pp. 101–102.

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294. [WALSH, B. D.] [Gall-flies; saw-flies.] <Pract. Ent., June, 1867, v. 2, pp. 102–103.

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295. [WALSH, B. D.] [Bark-beetles.] <Pract. Ent., June, 1867, v. 2, p. 103.

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296. [WALSH, B. D.] [Apple-tree insects.] <Pract. Ent., June, 1867, v. 2, p. 103.

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297. [WALSH, B. D.] [*Attacus cecropia*.] <Pract. Ent., June, 1867, v. 2, p. 103.

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298. [WALSH, B. D.] [Grape-vine flea-beetle.] <Pract. Ent., June, 1867, v. 2, p. 103.

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299. [WALSH, B. D.] [*Sphyracephala brevicornis*.] <Pract. Ent., June, 1867, v. 2, p. 103.

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300. [WALSH, B. D.] [May-bug.] <Pract. Ent., June, 1867, v. 2, p. 103.

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301. [WALSH, B. D.] [Blister-beetles: plant-louse enemy.] <Pract. Ent., June, 1867, v. 2, p. 104.

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302. [WALSH, B. D.] [Blackberry borers.] <Pract. Ent., June, 1867, v. 2, p. 104.

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303. W[ALSH], B. D. Scientific nomenclature. <Pract. Ent., July, 1867, v. 2, pp. 105–106.

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304. W[ALSH], B. D. Currant plant-lice (*Aphis ribis*). <Pract. Ent., July, 1867, v. 2, p. 106.

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305. [WALSH, B. D.] [*Lucanus elaphus*.] <Pract. Ent., July, 1867, v. 2, p. 107.

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306. [WALSH, B. D.] [New York weevil.] <Pract. Ent., July, 1867, v. 2, p. 107.

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307. [WALSH, B. D.] [Codling-moth.] <Pract. Ent., July, 1867, v. 2, p. 107.

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308. [WALSH, B. D.] [Hickory borer, etc.] <Pract. Ent., July, 1867, v. 2, p. 107.

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309. [WALSH, B. D.] [Wasps.] <Pract. Ent., July, 1867, v. 2, p. 107.

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310. [WALSH, B. D.] [Parasitic flies, etc.] <Pract. Ent., July, 1867, v. 2, pp. 107–108.

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311. [WALSH, B. D.] [Workers among Hymenoptera.]. <Pract. Ent., July, 1867, v. 2, p. 108.

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312. [WALSH, B. D.] [Cut-worms.] <Pract. Ent., July, 1867, v. 2, p. 108.

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313. [WALSH, B. D.] [Potato-beetle enemies.] <Pract. Ent., July, 1867, v. 2, p. 108.

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314. [WALSH, B. D.] [Black-bug.] <Pract. Ent., July, 1867, v. 2, p. 108.

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315. [WALSH, B. D.] [Burying-beetles.] <Pract. Ent., July, 1867, v. 2, p. 108.

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316. [WALSH, B. D.] [Insects named.] <Pract. Ent., July, 1867, v. 2, p. 108.

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317. [WALSH, B. D.] [Spring-tails.] <Pract. Ent., July, 1867, v. 2, pp. 108–109.

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318. [WALSH, B. D.] [Blackberry gall insects.] <Pract. Ent., July, 1867, v. 2, p. 109.

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319. [WALSH, B. D.] [Pine and cedar longicorns.] <Pract. Ent., July, 1867, v. 2, p. 109.

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320. [WALSH, B. D.] [White-pine plant-louse, etc.] <Pract. Ent., July, 1867, v. 2, p. 109.

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321. [WALSH, B. D.] [Cut-worms.] <Pract. Ent., July, 1867, v. 2, p. 109.

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322. [WALSH, B. D.] [Currant plant-louse.] <Pract. Ent., July, 1867, v. 2, pp. 109, 110.

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323. [WALSH, B. D.] [Beetles.] <Pract. Ent., July, 1867, v. 2, p. 110.

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324. W[ALSH], B. D. Fertilizing plants. <Pract. Ent., July, 1867, v. 2, p. 110.

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325. W[ALSH], B. D. The peach-worm. <Pract. Ent., July, 1867, v. 2, p. 110.

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326. W[ALSH], B. D. Valedictory. <Pract. Ent., August–September, 1867, v. 2, p. 111.

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327. W[ALSH], B. D. The State entomologist of Illinois. <Pract. Ent., August–September, 1867, v. 2, p. 111. Reprint: <Can. Farmer, 1 October, 1867, v. 4. S.-b., No. 2, p. 98.

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328. W[ALSH], B. D. The three so-called army-worms. <Pract. Ent., August–September, 1867, v. 2, pp. 111–114.

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329. W[ALSH], B. D. The little Turk and its crescent. <Pract. Ent., August–September, 1867, v. 2, pp. 114–115.

Comments on letter from F. C. Hill; oviposition of *Conotrachelus nenuphar*.

330. [WALSH, B. D.] Apple-worm. (*Carpocapsa pomonella*.) <Pract. Ent., August–September, 1867, v. 2, p. 115.

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331. W[ALSH], B. D. Spindle-worms. <Pract. Ent., August–September, 1867, v. 2, pp. 115–116.

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332. W[ALSH], B. D. A plant growing out of an insect. <Pract. Ent., August–September, 1867, v. 2, p. 116.

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333. [WALSH, B. D.] The imported gooseberry saw-fly. <Pract. Ent., August–September, 1867, v. 2, p. 116.

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334. W[ALSH], B. D. The Colorado potato-bug. <Pract. Ent., August–September, 1867, v. 2, p. 116.

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335. W[ALSH], B. D. Apple-tree plant-lice. (*Aphis mali*.) <Pract. Ent., August–September, 1867, v. 2, pp. 116–117.

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336. W[ALSH], B. D. The tent-caterpillar of the apple-tree. (*Clisiocampa americana*.) <Pract. Ent., August–September, 1867, v. 2, p. 117.

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337. [WALSH, B. D.] A new foe of the corn. <Pract. Ent., August–September, 1867, v. 2, pp. 117–118.

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338. [WALSH, B. D.] [*Rhyssa atrata.*] <Pract. Ent., August–September, 1867, v. 2, p. 118.

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339. [WALSH, B. D.] [Grape-vine beetles.] <Pract. Ent., August–September, 1867, v. 2, p. 118.

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340. [WALSH, B. D.] [Currant insects.] <Pract. Ent., August–September, 1867, v. 2, p. 118.

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341. [WALSH, B. D.] [Rascal leaf-crumpler.] <Pract. Ent., August–September, 1867, v. 2, p. 118.

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342. [WALSH, B. D.] [Strawberry enemy.] <Pract. Ent., August–September, 1867, v. 2, p. 118.

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343. [WALSH, B. D.] [Eight-spotted forester.] <Pract. Ent., August–September, 1867, v. 2, p. 118.

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411. [WALSH, B. D., and C. V. RILEY.] Insect enemies of the Colorado potato beetle. <Amer. Ent., October, 1868, v. 1, p. 37.

Answer to inquiry of S. H. Kriedelbaugh; identification of three insect enemies of *Doryphora 10-lineata*.

412. [WALSH, B. D., and C. V. RILEY.] "Harvest-bugs" in America, misnamed "jiggers." <Amer. Ent., October, 1868, v. 1, p. 38.

Answer to inquiry of M. McKenzie; habits of parasitic *Acarina*; distribution of and injuries caused by *Sarcopsylla penetrans*.

413. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., October, 1868, v. 1, p. 38.

Answer to inquiry of J. T. Smith; food-plants of *Aphis mali* and of *Notodonta* [= *Œdemasia*] *concinna*; *Campoplex* [= *Limneria*] *fugitiva* parasitic on larva of *Euchætes egle*.

414. [WALSH, B. D., and C. V. RILEY.] Grapes cut off by the tree cricket. <Amer. Ent., October, 1868, v. 1, p. 38, fig. 30–31.

Answer to inquiry of J. H. Tice; food-habits of *Œcanthus niveus*; deposition of eggs; figures both sexes.

415. [WALSH, B. D., and C. V. RILEY.] The Buffalo tree-hopper. <Amer. Ent., October, 1868, v. 1, p. 38.

Answer to inquiry of P. Rickert; characters, habits, and means against *Ceresa bubalus*.

416. [WALSH, B. D., and C. V. RILEY.] A scavenger mistaken for a foe. <Amer. Ent., October, 1868, v. 1, p. 38.

Answer to inquiry of Simmons and Tillson; characters and habits of the larva of *Copris carolina*.

417. [WALSH, B. D., and C. V. RILEY.] Insect foes of the bark-louse. <Amer. Ent., October, 1868, v. 1, p. 39, fig. 32.

Answer to inquiry of J. Weed; habits and figures of larva and imago of *Chilocorus bivulnerus*; food-habits and figure of *Epilachna borealis*.

418. [WALSH, B. D., and C. V. RILEY.] Best works on entomology. <Amer. Ent., October, 1868, v. 1, p. 39.

Answer to inquiry of B. M. Reynolds; mention of several important works on entomology.

419. [WALSH, B. D., and C. V. RILEY.] Larvæ in plum-gum. <Amer. Ent., October, 1868, v. 1, p. 39.

Answer to inquiry of P. Rickert; unknown larva (probably dipterous) found in gum of plum tree; *Mycetophila* sp., bred from gum of peach-tree.

420. [WALSH, B. D., and C. V. RILEY.] Insect foes of the hop vine. <Amer. Ent., October, 1868, v. 1, p. 39.

Answer to inquiry of H. C. Freeman; characters and habits of larva of *Saturnia* [=*Hyperchiria*] *io* and of *Vanessa* [=*Grapta*] *interrogationis*.

421. [WALSH, B. D., and C. V. RILEY.] Insect foe of the apple-tree borer. <Amer. Ent., October, 1868, v. 1, p. 39.

Answer to inquiry of J. E. Walker; undetermined carabid larva preying upon larva of *Saperda candida*.

422. [WALSH, B. D., and C. V. RILEY.] Oak tree caterpillars. <Amer. Ent., October, 1868, v. 1, p. 39.

Answer to inquiry of W. W. Daniells; characters and habits of larva of *Edema albifrons*.

423. [WALSH, B. D., and C. V. RILEY.] Bark-lice on apple trees. <Amer. Ent., October, 1868, v. 1, p. 40.

Answer to inquiry of J. G. Fleck; *Mytilaspis pomorum* destroyed by a minute mite.

424. [WALSH, B. D., and C. V. RILEY.] The "saddle-back" caterpillar. <Amer. Ent., October, 1868, v. 1, p. 40.

Answer to inquiries of E. Baxter and O. A. Kenyon; characters, habits, and urticating properties of the larva of *Empretia stimulea*.

425. [WALSH, B. D., and C. V. RILEY.] The regal walnut caterpillar. <Amer. Ent., October, 1868, v. 1, p. 40.

Answer to inquiry of M. Copley; characters and food-plants of larva of *Citheronia regalis*; times of metamorphosis; characters of the imago.

426. [WALSH, B. D., and C. V. RILEY.] The Hessian fly. <Amer. Ent., October, 1868, v. 1, p. 40.

Answer to inquiry of F. D. Carson; ravages of *Cecidomyia destructor*; late sowing as a means of avoiding the same.

427. [WALSH, B. D., and C. V. RILEY.] Red cedar caterpillar. <Amer. Ent., October, 1868, v. 1, p. 40.

Answer to inquiry of R. Peter; habits, characters, and means against *Thyridopteryx ephemeræformis*.

428. [WALSH, B. D., and C. V. RILEY.] Wheat-midge winter killed. <Amer. Ent., October, 1868, v. 1, p. 40.

Answer to inquiry of J. P. Alexander; cause of the scarcity of *Diplosis tritici*.

429. [WALSH, B. D., and C. V. RILEY.] Grape-vine borer. <Amer. Ent., October, 1868, v. 1, p. 40.

Answer to inquiries of A. Barter and J. H. Hogan; undetermined cerambycid larva injurious to grape-vines.

430. [WALSH, B. D., and C. V. RILEY.] Popular names and scientific names. <Amer. Ent., November, 1868, v. 1, p. 49, figs. 49–51.

Indefiniteness of popular names; figures *Julus* sp., and the larva and imago of one of the *Elateridæ*.

431. [WALSH, B. D., and C. V. RILEY.] Entomological ignorance in the North. <Amer. Ent., November, 1868, v. 1, pp. 50–51, figs. 52–54.

Confusion existing in regard to the meaning of the word locust; habits of *Acrididæ* and *Cicadidæ*; figures types of the two families and of twig with eggs of *Cicada* sp.

432. [WALSH, B. D., and C. V. RILEY.] Tit for tat. <Amer. Ent., November, 1868, v. 1, p. 52.

Ridicule of an absurd entomological item.

433. [WALSH, B. D., and C. V. RILEY.] Grasshoppers. <Amer. Ent., November, 1868, v. 1, p. 53.

Abundance and ravages of several species of *Acrididæ* and of *Acheta* [= *Gryllus*] *abbreviatus* in the northern central United States, and scarcity of the same in New York in 1868.

434. [WALSH, B. D., and C. V. RILEY.] To keep seed peas from bugs. <Amer. Ent., November, 1868, v. 1, p. 53.

Habits of and means against *Bruchus pisi*.

435. [WALSH, B. D., and C. V. RILEY.] Mind how you pack insects. <Amer. Ent., November, 1868, v. 1, p. 54.

Care needed to avoid the introduction of noxious insects.

436. [WALSH, B. D., and C. V. RILEY.] The apple growing on a grape vine. <Amer. Ent., November, 1868, v. 1, p. 54.

The "vegetable phenomenon," see Nos. 332, 403, 478, proved to be a gall.

437. [WALSH, B. D., and C. V. RILEY.] The late exhibition of useful and destructive insects at Paris. <Amer. Ent., November, 1868, v. 1, p. 55.

Notice of the formation of the Société d'Insectologie Agricole at Paris, and of the second exhibition of the society.

438. [WALSH, B. D., and C. V. RILEY.] Destroying black ants in gardens. <Amer. Ent., November, 1868, v. 1, p. 55.

Answer to inquiry of W. S. Patten; means against *Formicidæ* in gardens.

439. [WALSH, B. D., and C. V. RILEY.] Entomological quackery. <Amer. Ent., November, 1868, v. 1, p. 56.

Reprint of "The Curculio (Iowa Homestead, 22d July, 1868), with comments; means against *Conotrachelus nenuphar*.

440. [WALSH, B. D., and C. V. RILEY.] The cruel bug-hunters. <Amer. Ent., November, 1868, v. 1, p. 56.

Insects are not susceptible of such feelings of pain and pleasure as are felt by higher animals.

441. [WALSH, B. D., and C. V. RILEY.] Honey bees eating grapes. <Amer. Ent., November, 1868, v. 1, p. 56.

Reprint of a letter by T. W., from Ohio Farmer, with comments; *Apis mellifica* as an enemy of sound fruit.

442. [WALSH, B. D., and C. V. RILEY.] Twigs amputated by some unknown animal. <Amer. Ent., November, 1868, v. 1, p. 57.

Answer to inquiry of G. Burnside; method of work of an undetermined fruit-tree pruner [= *Oncideres cingulata*?].

443. [WALSH, B. D., and C. V. RILEY.] Twigs girdled by some animal. <Amer. Ent., November, 1868, v. 1, p. 57.

Answer to inquiries of Judge Brown and P. Earle; method of work of an undetermined fruit-tree pruner [= *Oncideres cingulata*?]; trees affected.

444. [WALSH, B. D., and C. V. RILEY.] Hop-vine caterpillar. <Amer. Ent., November, 1868, v. 1, p. 57.

Answer to inquiry of H. J. Dunlap; larva of *Grapta interrogationis* feeding on hop-vines.

445. [WALSH, B. D., and C. V. RILEY.] "Galls" on leaves of soft maple. <Amer. Ent., November, 1868, v. 1, p. 57.

Answer to inquiry of A. L. Child; characters of undescribed mite-galls and their architects; mode of formation of leaf-galls by mites.

446. [WALSH, B. D., and C. V. RILEY.] Unsightly galls on the cottonwood. <Amer. Ent., November, 1868, v. 1, p. 57.

Answer to inquiry of A. L. Child; character of galls made by *Pemphigus vagabondus* and *P. populicaulis*; their effects upon the cottonwood and means against them.

447. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., November, 1868, v. 1, p. 57.

Answer to inquiry of E. Baxter; *Gordius aquaticus* a host in *Orchelimum gracile*; *Cetonia* [= *Euphoria*] *inda* destructive to the peach.

448. [WALSH, B. D., and C. V. RILEY.] The stick-bug. <Amer. Ent., November, 1868, v. 1, p. 58. Reprint: <Can. Farmer, 15 January, 1870.

Description, vernacular names, and habits of *Spectrum* [= *Diapheromera*] *femorata*.

449. [WALSH, B. D., and C. V. RILEY.] Woolly lice on the beech. <Amer. Ent., November, 1868, v. 1, p. 58.

Answer to inquiry of F. H. Guiwits; habits and food-plants of *Pemphigus imbricator*.

450. [WALSH, B. D., and C. V. RILEY.] The sheep-bot or head-maggot. <Amer. Ent., November, 1868, v. 1, p. 58.

Answer to inquiry of R. W. Scott; *Œstrus ovis* ordinarily oviparous; sometimes the eggs hatch prematurely inside the body.

451. [WALSH, B. D., and C. V. RILEY.] Leaf-miners of the locust. <Amer. Ent., November, 1868, v. 1, p. 58.

Answer to inquiry of R. W. Scott; characters, habits, ravages, and means against *Hispa scutellaris* [= *Odontota dorsalis*].

452. [WALSH, B. D., and C. V. RILEY.] Leaf-hoppers on celery. <Amer. Ent., November, 1868, v. 1, p. 58.

Answer to inquiry of R. Parnell; mention of two undescribed *Tettigonidæ* infesting early celery.

453. [WALSH, B. D., and C. V. RILEY.] Parsnip caterpillars.—Scorpions. <Amer. Ent., November, 1868, v. 1, p. 59.

Answer to inquiry of F. Brewer; food-plants of larva of *Papilio asterias*; habits of the imago; habits and sting of *Buthus carolinianus*; its occurrence in Missouri.

454. [WALSH, B. D., and C. V. RILEY.] Noxious insects named. <Amer. Ent., November, 1868, v. 1, p. 59.

Answer to inquiry of J. H. Parsons; larval characters and food-plants of *Hyphantria textor* [= *cunea*], *Notodonta* [= *Œdemasia*] *concinna*, *Arctia* [= *Spilosoma*] *virginica*, *Carpocapsa pomonella*, and of *Trypeta pomonella*.

455. [WALSH, B. D., and C. V. RILEY.] Cut-worms destroying recently sown wheat. <Amer. Ent., November, 1868, v. 1, p. 59.

Answer to inquiry of T. R. Allen; characters, habits, and means against undetermined *Noctuidæ* attacking wheat.

456. [WALSH, B. D., and C. V. RILEY.] The spined soldier bug. <Amer. Ent., November, 1868, v. 1, p. 59.

Answer to inquiry of I. Hicks; *Podisus spinosus* as an enemy of *Hyphantria textor* [= *cunea*].

457. [WALSH, B. D., and C. V. RILEY.] The preying Mantis, alias Devil's riding horse, etc. <Amer. Ent., November, 1868, v. 1, p. 59.

Answer to inquiry of A. Pettit; habits of *Mantis* [= *Phasmomantis*] *carolina*; egg-mass of the same.

458. [WALSH, B. D., and C. V. RILEY.] The pigeon Tremex. <Amer. Ent., November, 1868, v. 1, p. 59.

Answer to inquiry of F. Brewer; characters of *Tremex columba*; food-habits and parasites of its larva.

459. [WALSH, B. D., and C. V. RILEY.] Flesh-worms. <Amer. Ent., November, 1868, v. 1, p. 59.

Answer to inquiry of W. J. Stuart; larval habits of an undetermined muscid.

460. [WALSH, B. D., and C. V. RILEY.] Fall web-worm on hickory. <Amer. Ent., November, 1868, v. 1, p. 59.

Answer to inquiry of W. W. Daniels; transformation of *Hyphantria textor* [= *cunea*]; characters of its larva and imago.

461. [WALSH, B. D., and C. V. RILEY.] Butterflies named. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of W. W. Butterfield; characters of *Colias philodice*, *Vanessa* [=*Grapta*] *comma*, and *Danais archippus*.

462. [WALSH, B. D., and C. V. RILEY.] Museum pest. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of T. W. Holt, jr.; means against *Dermestidæ*.

463. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of J. Weed; enemies of plant-lice and bark-lice; food-plant and characters of the larva of *Papilio turnus*.

464. [WALSH, B. D., and C. V. RILEY.] Grapes spoiled by something. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of J. Wood; grapes injured from some unknown cause; juice from wounded grapes as food for moths.

465. [WALSH, B. D., and C. V. RILEY.] White-pine worms. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of J. T. Little; food-plants of larva of *Lophyrus abbotii*; transformations of the same.

466. [WALSH, B. D., and C. V. RILEY.] The Tarantula of Texas. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of J. Bell; manner in which *Pompilus* [=*Pepsis*] *formosa* prepares *Mygale hentzii* for food for its larva.

467. [WALSH, B. D., and C. V. RILEY.] Insect foes of the apple-tree. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of G. C. Brackett; characters of larva of *Carpocapsa pomonella*; means against *Datana ministra* and *Pemphigus pyri* [=*Schizoneura lanigera*].

468. [WALSH, B. D., and C. V. RILEY.] Grape-leaf folders eaten by spiders. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of A. A. Hilliard; larva of *Desmia maculalis* destroyed by a spider.

469. [WALSH, B. D., and C. V. RILEY.] Caterpillar of the Troilus butterfly. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of A. S. Fuller; food-habits of larva of *Papilio troilus*.

470. [WALSH, B. D., and C. V. RILEY.] Potato beetles. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of P. H. Foster; identification of *Epicauta vittata* and *Macrobasis unicolor* as enemies of the potato.

471. [WALSH, B. D., and C. V. RILEY.] Holes round the roots of young ash trees in the nursery. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of I. Hicks; characters and food-habits of the larva of *Xyloryctes satyrus*.

472. [WALSH, B. D., and C. V. RILEY.] Locust borers. <Amer. Ent., November, 1868, v. 1, p. 60.

Answer to inquiry of U. Bruner; destructiveness of the larva of *Clytus* [=*Cyllene*] *robiniæ*.

473. [WALSH, B. D., and C. V. RILEY.] The hellgrammite fly. <Amer. Ent., December, 1868, v. 1, pp. 61–62, figs. 56–57.

Habits of *Corydalus cornutus*; figures the larva, pupa, and imago; description and figure of the eggs of *Belostoma americanum* mistaken for those of *Corydalus*.

474. [WALSH, B. D., and C. V. RILEY.] The periodical Cicada. <Amer. Ent., December, 1868, v. 1, pp. 63–72, figs. 58–64. Extract: <Op. cit., June, 1869, v. 1, p. 202.

Characterization of the 13-year brood of *Cicada* as a new species, *C.* [= *Tibicen*] *tredecim*; dimorphism of the same and of *C.* [= *T.*] *septendecim*; seasons, natural history, transformations, enemies, sting, and injuries of these species; chronological history of their several known broods; figures the several stages of *C.* [= *T.*] *septendecim*, the towers made by the pupa and twigs with eggs.

475. [WALSH, B. D., and C. V. RILEY.] The hateful or Colorado grasshopper, *Caloptenus spretus*, Uhler and Walsh. <Amer. Ent., December, 1868, v. 1, pp. 73–76, fig. 65.

Comparative characters and figures of *Caloptenus spretus* and *C. femur-rubrum*; native habitat, migrations, distribution, and ravages of the former; harmlessness of its second generation in the Mississippi Valley as compared with the first generation; improbability that it will ever become a permanent resident in that region.

476. [WALSH, B. D., and C. V. RILEY.] The twig-girdler, *Oncideres cingulatus*, Say. <Amer. Ent., December, 1868, v. 1, pp. 76–77, fig. 66.

Oviposition and food habits of *Oncideres cingulata*; figure of imago and of amputated twig.

477. [WALSH, B. D., and C. V. RILEY.] An Ichneumon fly mistaken for a wasp. <Amer. Ent., December, 1868, v. 1, p. 77.

Review of paper in *Christian Advocate* on "The stiletto wasp"; *Pimpla* [= *Thalessa*] *atrata* probably mistaken for a wasp.

478. [WALSH, B. D., and C. V. RILEY.] A plant growing out of an insect. <Amer. Ent., December, 1868, v. 1, p. 77.

See Nos. 332, 403, 436; extract from *Sedalia Press*, with comments; larvæ of *Lachnosterna fusca* infested with *Cordyceps*; larvæ supposed to have eaten poisonous seed, which has germinated after killing the larvæ; sowing the seed as a means against the larvæ.

479. [WALSH, B. D., and C. V. RILEY.] On our table. <Amer. Ent., December, 1868, v. 1, p. 78.

Notices of The butterflies of North America by W. H. Edwards.—The Canadian Entomologist.—Guide to the study of insects by A. S. Packard, jr.

480. [WALSH, B. D., and C. V. RILEY.] Eggs of the white-marked tussock moth. <Amer. Ent., December, 1868, v. 1, p. 79, fig. 67.

Answer to inquiry of J. M. Hannah; characters of egg and larva of *Orgyia leucostigma*; sexual differences; parasites; figure of the larva.

481. [WALSH, B. D., and C. V. RILEY.] Currant borers. <Amer. Ent., December, 1868, v. 1, p. 79.

Answer to inquiry of B. N. McKinstry; means against *Trochilium* [= *Ægeria*] *tipuliformis*, *T.* [= *Alcathœ*] *caudatum*, and *Psenocerus supernotatus*.

482. [WALSH, B. D., and C. V. RILEY.] Insect infesting grape seed. <Amer. Ent., December, 1868, v. 1, p. 79, fig. 68.

Answer to inquiry of A. S. Fuller; characters and figure of larva of *Isosoma vitis* infesting grape seed.

483. [WALSH, B. D., and C. V. RILEY.] Museum pests again. <Amer. Ent., December, 1868, v. 1, p. 79.

Answer to inquiry of J. Huggins; means against *Anthreni* in collections of natural history.

484. [WALSH, B. D., and C. V. RILEY.] Grape-vine leaf-hoppers. <Amer. Ent., December, 1868, v. 1, p. 79.

Answer to inquiry of P. C. Holmes; means against grape-vine leaf-hoppers.

485. [WALSH, B. D., and C. V. RILEY.] Apple-tree borer. <Amer. Ent., December, 1868, v. 1, p. 80, fig. 69.

Answer to inquiries of J. T. Zimmerman, C. H. Roberts, and C. R. Babbitt; habits, ravages, and figure of *Bostrichus* [= *Amphicerus*] *bicaudatus*.

486. [WALSH, B. D., and C. V. RILEY.] The murky ground beetle. <Amer. Ent., December, 1868, v. 1, p. 80.

Answer to inquiry of E. T. Dale; food-habits and bombardier discharges of *Harpalus caliginosus*.

487. [WALSH, B. D., and C. V. RILEY.] Curculio and bark-lice. <Amer. Ent., December, 1868, v. 1, p. 80.

Answer to inquiry of D. A. Compton; hibernation of *Conotrachelus nenuphar*; soft soap as a means against *Coccidæ*.

488. [WALSH, B. D., and C. V. RILEY.] Insects to be named. <Amer. Ent., December, 1868, v. 1, p. 80.

Answer to inquiry of E. B. Beach; identification of several lepidopterous larvæ; food-habits of *Dryocampa stigma* and *D. pellucida* [= *virginiensis*].

489. [WALSH, B. D., and C. V. RILEY.] Young pecan trees girdled. <Amer. Ent., December, 1868, v. 1, p. 80.

Answer to inquiry of Mann and Redmond; means against *Oncideres cingulata*.

490. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., December, 1868, v. 1, p. 80.

Answer to inquiry of E. T. Dale; identification of several Coleoptera; supposed food-habits of *Tragidion fulvipenne*; character of cocoons of two species of *Microgaster* infesting *Protoparce celeus*.

491. [WALSH, B. D., and C. V. RILEY.] Eggs of true bugs. <Amer. Ent., December, 1868, v. 1, p. 80.

Answer to inquiry of S. C. Thornton; characters of eggs of *Prionidus cristatus*. See Amer. Ent., v. 1, pp. 96 and 187.

492. [WALSH, B. D., and C. V. RILEY.] Museum pest once more. <Amer. Ent., December, 1868, v. 1, p. 80.

Answer to inquiry of G. M. L.; larvæ of *Anthrenus musæorum* injuring whalebone, woolen goods, etc.

493. [WALSH, B. D., and C. V. RILEY.] The Tarantula of Texas again. <Amer. Ent., December, 1868, v. 1, p. 80.

Answer to inquiry of C. Peabody; distribution of *Mygale hentzii* in Missouri.

494. [WALSH, B. D., and C. V. RILEY.] The Hessian fly on seed wheat. <Amer. Ent., December, 1868, v. 1, p. 80.

Answer to inquiry of U. Scott; broods and times of transformation of *Cecidomyia destructor*.

495. [WALSH, B. D., and C. V. RILEY.] The apple-root plant-louse. *Eriosoma (Pemphigus) pyri*, Fitch. <Amer. Ent., January, 1869, v. 1, pp. 81–84, figs. 70–72.

Habits, ravages, description, enemies, and parasites of, and means against *Eriosoma pyri* [=*Schizoneura lanigera*]; figures injured root, larva, and adult with details of structure; figures adult plant-louse found on cottonwood; description and figure of larva, puparium, and imago of *Pipiza radicum* n. sp.

496. [WALSH, B. D., and C. V. RILEY.] Ants' nests in gardens. <Amer. Ent., January, 1869, v. 1, p. 84.

Means against ants.

497. [WALSH, B. D., and C. V. RILEY.] The parasites of the human animal. <Amer. Ent., January, 1869, v. 1, pp. 84–88, figs. 73–74.

Brief accounts of *Pediculus humanus* [=*vestimenti*], *P. cervicalis* [=*capitis*], *P.* [=*Pthirius*] *pubis*, *Œstrus* [=*Dermatobia*] *hominis*, *Pulex irritans*, *P.* [=*Sarcopsylla*] *penetrans*, *Acanthia lectularia*, *Conorhinus sanguisuga*, and *Acarus* [=*Sarcoptes*] *scabiei*; figures and habits of *Reduvius* [=*Opsicœtus*] *personatus* and of *Pirates* [=*Rasahus*] *biguttatus*; figure of *Conorhinus sanguisuga*; classificatory relations of *Pediculina* and *Mallophaga*.

498. [WALSH, B. D., and C. V. RILEY.] The coffee borer. <Amer. Ent., January, 1869, v. 1, p. 88.

Unnamed coffee borer injurious to coffee trees in Madras.

499. [WALSH, B. D., and C. V. RILEY.] Strawberry worms. <Amer. Ent., January, 1869, v. 1, pp. 89–91, figs. 75–76.

Description, natural history, ravages, means against, and figures of larva and imago of *Anchylopera* [=*Phoxopteris*] *fragariæ*, n. sp.; figures all stages of *Emphytus* [=*Harpiphorus*] *maculatus*; description of its larva and pupa, its natural history, and means against its ravages.

500. [WALSH, B. D., and C. V. RILEY.] Fungoid growths. <Amer. Ent., January, 1869, v. 1, pp. 91–92.

Mention of instances of the growth of fungi on living plants and animals; letter of S. H. Y. Early on the occurrence of fungoid growths on the larvæ of *Lachnosterna fusca*.

501. [WALSH, B. D., and C. V. RILEY.] Plums for the million. <Amer. Ent., January, 1869, v. 1, pp. 92–93.

Means against *Conotrachelus nenuphar*; notes on varieties of plum exempt from the attacks of the same.

502. [WALSH, B. D., and C. V. RILEY.] The "Colorado grasshopper." <Amer. Ent., January, 1869, v. 1, pp. 95–96.

Answer to inquiries of W. N. Byers and V. Devinny; specific names indicating particular districts can not be changed because the insect is found in other regions.

503. [WALSH, B. D., and C. V. RILEY.] Universal remedies. <Amer. Ent., January, 1869, v. 1, p. 97.

Criticism of an advertisement of "Best's patent fruit tree and vine invigorator."

504. [WALSH, B. D., and C. V. RILEY.] Complimentary. <Amer. Ent., January, 1869, v. 1, p. 98.

Notices of several notices of the American Entomologist.

505. [WALSH, B. D., and C. V. RILEY.] Paper-makers. <Amer. Ent., January, 1869, v. 1, p. 98.

Comparison of the manufacture of paper by man and by the *Vespidæ*.

506. [WALSH, B. D., and C. V. RILEY.] On our table. <Amer. Ent., January, 1869, v. 1, p. 98.

Notices of L'Insectologie agricole—Cecil's books of natural history.

507. [WALSH, B. D., and C. V. RILEY.] Look out for the eggs of the apple-tree plant-louse. <Amer. Ent., January, 1869, v. 1, p. 99.

Abundance of eggs of *Aphis mali* in winter of 1868–'69, in Missouri and Illinois; means against the same.

508. [WALSH, B. D., and C. V. RILEY.] Greenhouse plants [=pests]. <Amer. Ent., January, 1869, v. 1, p. 99.

Means against *Aphididæ*, *Coccidæ*, and *Tetranychus telarius*.

509. [WALSH, B. D., and C. V. RILEY.] How to hatch pupæ. <Amer. Ent., January, 1869, v. 1, p. 99.

Answer to inquiry of D. P. Smith; methods of raising insects.

510. [WALSH, B. D., and C. V. RILEY.] Drug-store pests. <Amer. Ent., January, 1869, v. 1, p. 99.

Answer to inquiry of J. M. Good; characters of larva of undertermined ptinid; food-habits of *Ptinus brunneus*; food-habits, characters, and means against *Calandra oryzæ* and *C. granaria*. (See No. 551.)

511. [WALSH, B. D., and C. V. RILEY.] Apple-tree worms. <Amer. Ent., January, 1869, v. 1, p. 99.

Answer to inquiry of J. J. Thomas; habits, food-plants, and means against *Phycita nebulo* [=*Acrobasis indiginella*].

512. [WALSH, B. D., and C. V. RILEY.] Crane-fly larvæ. Amer. Ent., January, 1869, v. 1, p. 100.

Answer to inquiries of R. D. Alexander and — Hickman; habits of *Tipula* sp.; food-habits of *T. trivittata*.

513. [WALSH, B. D., and C. V. RILEY.] Punctured grape canes. <Amer. Ent., January, 1869, v. 1, p. 100.

Answer to inquiry of B. L. Kingsbury; description of punctures in grape canes probably caused by *Orocharis saltator*; means against tree-crickets.

514. [WALSH, B. D., and C. V. RILEY.] Insects to be named. <Amer. Ent., January, 1869, v. 1, p. 100.

Answer to inquiry of W. R. Marine; identification of several insects found in apple and peach nurseries.

515. [WALSH, B. D., and C. V. RILEY.] Supposed cause of yellows in peach trees. <Amer. Ent., January, 1869, v. 1, p. 100, fig. 77.

Answer to inquiry of C. H. Roberts; yellows of peach-trees a vegetable disease; figure of healthy and diseased limb; affected trees more subject to the attacks of insects than healthy trees.

516. [WALSH, B. D., and C. V. RILEY.] Eggs of katydid. <Amer. Ent., January, 1869, v. 1, p. 100.

Answer to inquiry of A. A. Hilliard; character of the eggs of *Platyphyllum* [= *Cyrtophyllus*] *concavus*.

517. [WALSH, B. D., and C. V. RILEY.] Apple-twig borer. <Amer. Ent., January, 1869, v. 1, p. 100.

Answer to inquiry of J. T. Zimmerman; ravages of *Bostrichus* [= *Amphicerus*] *bicaudatus*.

518. [WALSH, B. D., and C. V. RILEY.] Galls and their architects. <Amer. Ent., February, 1869, v. 1, pp. 101–110, figs. 78–90.

Definition, classification, and variation of galls; accounts of some galls made by *Cynipidæ*, *Cecidomyidæ*, and *Aphididæ* and of the gall-makers; natural history, descriptions, and figures of *Cynips* [= *Amphibolips*] *q.-spongifica*, *C.* [= *A.*] *q.-inanis*, *C.* [= *A.*] *q.-prunus* n. sp., *Cecidomyia s.-strobiloides*, *C. s.-brassicoides*, *C. v.-pomum* n. sp., *C. v.-coryloides* n. sp., *Pemphigus vagabundus*, *P. rhois* and *Colopha ulmicola*; description of the imago of *Cynips q.-prunus* and of *Pemphigus ulmifusus* n. sp., and of the larvæ of the new species of *Cecidomyia*; dimorphism of gall-makers; presence of inquilines and parasites in galls. (See No. 821.)

519. [WALSH, B. D., and C. V. RILEY.] The bogus Colorado potato-bug, *Doryphora juncta*, Germar. <Amer. Ent., February, 1869, v. 1, p. 110.

Food-habits of *D. juncta*.

520. [WALSH, B. D., and C. V. RILEY.] Ants and aphides. <Amer. Ent., February, 1869, v. 1, p. 110.

Inquiry of W. Batchelor, with answer; secretion of honey-dew by *Aphididæ* and harvesting of the same by ants.

521. [WALSH, B. D., and C. V. RILEY.] The Tarantula of Texas, *Mygale hentzii*, Girard. <Amer. Ent., February, 1869, v. 1, p. 11, fig. 91.

Figure of *Mygale hentzii*; habits of *Pompilus* [= *Pepsis*] *formosa*; quotes from G. Lincecum's "The Tarantula killers of Texas" (Amer. Nat., v. 1, pp. 137–141).

522. [WALSH, B. D., and C. V. RILEY.] The melancholy chafer. <Amer. Ent., February, 1869, v. 1, p. 111.

Ravages and figure of the imago of *Euphoria melancholica*.

523. [WALSH, B. D., and C. V. RILEY.] Apple worms (*Carpocapsa pomonella*, Linn.). <Amer. Ent., February, 1869, v. 1, pp. 112–114, fig. 93.

Natural history, ravages, and means against *Carpocapsa pomonella*; figures injured apple, larva, pupa, and imago.

524. [WALSH, B. D., and C. V. RILEY.] The asparagus beetle (*Crioceris asparagi*, Linn.). <Amer. Ent., February, 1869, v. 1, pp. 114–115, fig. 94.

Introduction into the United States; natural history, ravages, parasites of, and means against *Crioceris asparagi*; figure of eggs, larvæ, and imago of the same.

525. [WALSH, B. D., and C. V. RILEY.] A popular delusion. <Amer. Ent., February, 1869, v. 1, p. 116.

No insect passes through all the stages of its growth within one day; life history of *Ephemeridæ*.

526. [WALSH, B. D., and C. V. RILEY.] The squirrel bot. <Amer. Ent., February, 1869, v. 1, v. 117.

Comments on paper by S. S. Rathvon; emasculation of the striped squirrel by *Cuterebra buccata*.

527. [WALSH, B. D., and C. V. RILEY.] [Periodical Cicada.] <Amer. Ent., February, 1869, v. 1, p. 117.

Comments on letter of R. H. Warder; oviposition of *Cicada* [=*Tibicen*] *septendecim* in evergreens.

528. [WALSH, B. D., and C. V. RILEY.] Transformations of insects. <Amer. Ent., February, 1869, v. 1, p. 118.

Brief statement of the stages of growth of insects.

529. [WALSH, B. D., and C. V. RILEY.] Do bees injure raspberries? <Amer. Ent., February, 1869, v. 1, p. 118.

Comments on discussion before New York Fruit Growers' Club as to the effects of bees on flowers and fruits.

530. [WALSH, B. D., and C. V. RILEY.] Best's fruit-tree invigorator again. <Amer. Ent., February, 1869, v. 1, p. 119.

Notice of invention of a new "invigorator" by B. Best.

531. [WALSH, B. D., and C. V. RILEY.] The insect extinguisher, by Joseph Treat, N. J. <Amer. Ent., February, 1869, v. 1, p. 119.

Critical review of pamphlet by J. Treat.

532. [WALSH, B. D., and C. V. RILEY.] More good words. <Amer. Ent., February, 1869, v. 1, p. 119.

Notice of favorable notices of the American Entomologist.

533. [WALSH, B. D., and C. V. RILEY.] Lacewing fly. <Amer. Ent., February, 1869, v. 1, p. 119.

Answer to inquiry of J. Huggins; characters of *Chrysopa* sp.; its hibernation as a pupa and imago.

534. [WALSH, B. D., and C. V. RILEY.] Gigantic water-bug. <Amer. Ent., February, 1869, v. 1, p. 119.

Answer to inquiry of S. E. Munford; food-habits of *Belostoma grandis* [=*americanum*].

535. [WALSH, B. D., and C. V. RILEY.] The white-marked tussock moth again. <Amer. Ent., February, 1869, v. 1, p. 120.

Answer to inquiry of A. S. Fuller; mention of seven parasites attacking *Orgyia leucostigma*.

536. [WALSH, B. D., and C. V. RILEY.] Grasshopper eggs—will they hatch? <Amer. Ent., February, 1869, v. 1, p. 120.

Answer to inquiry of C. J. Jones; frosts not likely to prevent the hatching of the eggs of *Caloptenus spretus*.

537. [WALSH, B. D., and C. V. RILEY.] Injured apple-trees. <Amer. Ent., February, 1869, v. 1, p. 120.

Answer to inquiry of G. C. Broadhead; means against *Chrysobothris femorata*.

538. [WALSH, B. D., and C. V. RILEY.] Bag worms. <Amer. Ent., February, 1869, v. 1, p. 120.

Answer to inquiry of W. W. Butterfield; means against *Thyridopteryx ephemeræformis*.

539. [WALSH, B. D., and C. V. RILEY.] Eggs of the apple-tree plant-louse. <Amer. Ent., February, 1869, v. 1, p. 120.

Answer to inquiry of M. W. Seaman; effect of frosts upon the eggs and larvæ of *Aphis mali*.

540. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer Ent., February, 1869, v. 1, p. 120.

Answer to inquiry of J. B. Merwin; identification of insects sent; characters of *Vanessa antiopa* and *Cynthia* [=*Pyrameis*] *atalanta*.

541. [WALSH, B. D., and C. V. RILEY.] White grubs. <Amer. Ent., February, 1869, v. 1, p. 120.

Answer to inquiry of W. C. Holmes; undetermined white-grub injuring grass and osage orange.

542. [WALSH, B. D., and C. V. RILEY.] The polyphemus moth, *Attacus polyphemus*, Linn. <Amer. Ent., March, 1869, v. 1, pp. 121–122, fig. 95.

Attacus [=*Telea*] *polyphemus*, *A. cynthia*, and *Bombyx* [=*Sericaria*] *mori* as silk-producers; food-plants, description of larva, habits, and seasons of *A.* [=*T.*] *polyphemus*; figure of the imago; ravages of *A. cecropia*; antennæ mistaken for wings; mention of Lepidoptera having fissured wings.

543. [WALSH, B. D., and C. V. RILEY.] Wasps and their habits. <Amer. Ent., March, 1869, v. 1, pp. 122–143, figs. 96–112.

Structure, classification, and habits of North American predatory Hymenoptera; comparative characters of the digger and true wasps; figure to show the folding of the wing in true wasps; habits and figures of imagos of *Chlorion cæruleum*, *Bembex fasciata*, *Sphex ichneumonea*, *Ammophila pictipennis*, *Pepsis formosa*, *Stizus grandis* [=*Sphecius speciosus*], *S.* [=*S.*] *speciosus*, *Pelopœus lunatus* [=*cementarius*], *Agenia bombycina*, *Trypoxylon albitarse*, *Ceropales rufiventris*, *Eumenes fraternus*, *Vespa maculata*, and *Polistes rubiginosus*; figure of imago of *Cryptus* [=*Linoceras*] *junceus* and of several nests of wasps. (See No. 375.)

544. [WALSH, B. D., and C. V. RILEY.] Do toads eat worker bees? <Amer. Ent., March, 1869, v. 1, p. 144.

Reprint and review of article by C. Dadant, and of comments of editors of American Bee Journal; usefulness of toads.

545. [WALSH, B. D., and C. V. RILEY.] Best's invigorator once again. <Amer. Ent., March, 1869, v. 1, p. 145.

Condemnation of B. Best's patent fruit tree and vine invigorator.

546. [WALSH, B. D., and C. V. RILEY.] On our table. <Amer. Ent., March, 1869, v. 1, p. 146.

Notices of Nos. 1 and 2 of *Le Naturaliste Canadien*.

547. [WALSH, B. D., and C. V. RILEY.] Sugar-tree borer. <Amer. Ent., March, 1869, v. 1, p. 146.

Answer to inquiry of E. Simms; characters and means against *Arhopalus* [=*Plagionotus*] *speciosus*.

548. [WALSH, B. D., and C. V. RILEY.] Swellings on apple scions. <Amer. Ent., March, 1869, v. 1, p. 146.

Answer to inquiry of W. Colwell; dipterous galls on apple scions and basswood twigs.

549. [WALSH, B. D., and C. V. RILEY.] Gas-waste *vs.* Curculio. <Amer. Ent., March, 1869, v. 1, p. 147.

Answer to inquiry of H.; merits of gas-waste as an insect destroyer.

550. [WALSH, B. D., and C. V. RILEY.] Eggs of the apple-tree plant-louse again. <Amer. Ent., March, 1869, v. 1, p. 147.

Answers to inquiries of C. Williams and W. L. French; means against *Aphis mali*.

551. [WALSH, B. D., and C. V. RILEY.] Drug-store pests. <Amer. Ent., March, 1869, v. 1, p. 147.

Answer to inquiry of J. M. Good; food-habits of *Lasioderma serricorne*. See No. 510.

552. [WALSH, B. D., and C. V. RILEY.] Small galls and minings on apple-twigs. <Amer. Ent., March, 1869, v. 1, p. 147.

Answer to inquiry of O. O. A. Gardner; characters of undetermined galls and borings in twigs of apple-trees.

553. [WALSH, B. D., and C. V. RILEY.] Stinking bugs. <Amer. Ent., March, 1869, v. 1, p. 147.

Answer to inquiry of C. L. Janney; habits of an undescribed *Brachyrhynchus*.

554. [WALSH, B. D., and C. V. RILEY.] Eggs in peach-twigs. <Amer. Ent., March, 1869, v. 1, p. 147.

Answer to inquiry of G. Fisher; character of eggs of *Œcanthus niveus*.

555. [WALSH, B. D., and C. V. RILEY.] Flat-headed apple-tree borer. <Amer. Ent., March, 1869, v. 1, p. 147.

Answer to inquiry of B. F. Mudge; means against *Chrysobothris femorata*.

556. [WALSH, B. D., and C. V. RILEY.] A bundle of entomological queries. <Amer. Ent., March, 1869, v. 1, p. 148.

Answer to inquiry of W. W. Butterfield; mentions several desirable entomological books.

557. [WALSH, B. D., and C. V. RILEY.] Grape-berry moth. <Amer. Ent., March, 1869, v. 1, p. 148.

Answer to inquiry of M. C. Read; means against *Penthina vitivorana* [= *Eudemis botrana*].

558. [WALSH, B. D., and C. V. RILEY.] Hairy caterpillar. <Amer. Ent., March, 1869, v. 1, p. 148.

Answer to inquiry of T. S. Gold; characters of the larva and imago of *Arctia* [= *Pyrrharctia*] *isabella*.

559. [WALSH, B. D., and C. V. RILEY.] Borer in plum-twigs. <Amer. Ent., March, 1869, v. 1, p. 148.

Answer to inquiry of W. Caldwell; undetermined borer, allied to the oak-pruner, in plum-twigs. See No. 606.

560. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., March, 1869, v. 1, p. 148.

Answer to inquiry of W. W. Butterfield; identification of insects sent; comparative characters of *Arhopalus* [= *Cyllene*] *pictus* and *A.* [= *C.*] *robiniæ*; variation in *Clytus* [= *Neoclytus*] *capræa*; generic characters of *Arhopalus* and *Clytus*. (See No. 582.)

561. [WALSH, B. D., and C. V. RILEY.] Pear-root borer. <Amer. Ent., March, 1869, v. 1, p. 148.

Answer to inquiry of P. Earle; larva of *Prionus laticollis* injurious to the pear and grape.

562. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., March, 1869, v. 1, p. 148.

Answer to inquiry of M. H. Boye; *Gryllotalpa longipennis* [= *columbia*] a dimorphic form of *G. borealis*.

563. [WALSH, B. D., and C. V. RILEY.] The joint-worm (*Isosoma hordei* Harris). <Amer. Ent., April, 1869, v. 1, pp. 149–158, figs. 113–118.

Natural history, variation, parasites, ravages, and means against *Isosoma hordei*; unity of habits in insects; generic classification of the joint-worm fly; figures male and female imago; figures ♂ and ♀ imagos of *Semiotellus chalcidiphagus* n. sp., *Eurytoma* sp., and *Decatoma* sp., and of ♀ imago of *Antigaster* [= *Eupelmus*] *mirabilis*.

564. [WALSH, B. D., and C. V. RILEY.] The wavy-striped flea-beetle. (*Haltica* [*Phyllotreta*] *striolata* Illiger). <Amer. Ent., April, 1869, v. 1, pp. 158–159, fig. 119.

Description, habits, and ravages of *Phyllotreta striolata* [= *vittata*]; figures larva, pupa, and imago of the same; quotes from H. Shimer's "The wavy-striped flea-beetle" (Amer. Nat., December, 1868, v. 2, pp. 514–517).

565. [WALSH, B. D., and C. V. RILEY.] Concerning certain smart bugs. <Amer. Ent., April, 1869, v. 1, p. 160.

Preferences of *Phylloxera vitifoliæ* [= *vastatrix*] and *Macrodactylus subspinosus* for certain varieties of grape-vines, of *Doryphora 10-lineata* and *Lema trilineata* for certain varieties of potato-vines, and of *Mytilaspis pomicorticis* [= *pomorum*] and *Carpocapsa pomonella* for certain varieties of apple.

566. [WALSH, B. D., and C. V. RILEY.] Curculio remedies. <Amer. Ent., April, 1869, v. 1, p. 161.

Comments on essay of L. C. Francis on the plum; coal oil not effective against *Conotrachelus nenuphar*.

567. [WALSH, B. D., and C. V. RILEY.] How great wits jump together. <Amer. Ent., April, 1869, v. 1, p. 161.

Stopping holes with hard soap ineffective against borers.

568. [WALSH, B. D., and C. V. RILEY.] On our table. <Amer. Ent., April, 1869, v. 1, p. 165.

Notices of Harris's Insects injurious to Vegetation, L'Insectologie agricole, and several other works not entomological.

569. [WALSH, B. D., and C. V. RILEY.] Eggs of the oblong-winged katydid. <Amer. Ent., April, 1869, v. 1, p. 166, fig. 120.

Answer to inquiries of T. A. Thop, J. L. Rice, B. J. Campbell, H. Cheeney, and A. McMoore; eggs of *Phylloptera* [= *Amblycorypha*] *oblongifolia* compared with those of *Platyphyllum* [= *Cyrtophyllus*] *concavum*; figures of the eggs of *A. oblongifolia*.

570. [WALSH, B. D., and C. V. RILEY.] Mossy rose gall. <Amer. Ent., April, 1869, v. 1, p. 166.

Answer to inquiry of F. W. Collins; characters of *Rhodites rosæ* and its gall.

571. [WALSH, B. D., and C. V. RILEY.] Caterpillars on lombardy poplars. <Amer. Ent., April, 1869, v. 1, p. 166.

Answer to inquiry of J. F. Gurley; characters of larva, habits, food-plants, and parasites of *Acronycta acericola* [= *americana*].

572. [WALSH, B. D., and C. V. RILEY.] Museum pests. <Amer. Ent., April, 1869, v. 1, p. 166, fig. 121.

Answer to inquiries of F. W. Hoit, jr., G. M. L., and J. Huggins; figures larva, pupa, and imago of *Anthrenus* sp.; *A. varius* compared with *A. museorum*.

573. [WALSH, B. D., and C. V. RILEY.] Cockroach eggs. <Amer. Ent., April, 1869, v. 1, p. 166.

Answer to inquiry of H. C. Freeman; character of the egg-cases and adult of *Platamodes unicolor*; occurrence of *Ectobia germanica* in Illinois; ravages of species of *Blattidæ*.

574. [WALSH, B. D., and C. V. RILEY.] Apple-tree leaf-crumplers. <Amer. Ent., April, 1869, v. 1, p. 166.

Answer to inquiry of J. F. Jones; result of the work of the larvæ of *Phycita nebulo* [= *Acrobasis indiginella*] on the growth of apple-trees.

575. [WALSH, B. D., and C. V. RILEY.] A most precious bug. <Amer. Ent., April, 1869, v. 1, p. 167.

Answer to inquiry of E. S. Holmes; characters and variety of *Hylecœtus lugubris*; destructiveness of *Lymexylon navale*; use of the maxillary palpi in the ♂ ♂ of *Lymexylidæ*.

576. [WALSH, B. D., and C. V. RILEY.] Blackberry-cane borers. <Amer. Ent., April, 1869, v. 1, p. 167.

Answer to inquiry of C. Parry; characters and habits of larva of unnamed borer [= *Bembecia marginata*]; plants affected by species of *Ægeriadæ*.

577. [WALSH, B. D., and C. V. RILEY.] Rows of eggs in pear-twigs. <Amer. Ent., April, 1869, v. 1, p. 167.

Answer to inquiry of H. C. Freeman; characters of unknown eggs found in pear-twigs.

578. [WALSH, B. D., and C. V. RILEY.] An orchard giving out. <Amer. Ent., April, 1869, v. 1, p. 168.

Answer to inquiry of W. M. Clemens; habits and means against *Saperda bivittata* [= *candida*] and *Chrysobothris femorata*.

579. [WALSH, B. D., and C. V. RILEY.] Plant-louse eggs on apple and mountain ash. <Amer. Ent., April, 1869, v. 1, p. 168.

Answer to inquiry of W. Stewart; eggs of *Aphis mali* on apple-twigs and probably on those of mountain ash; *Aspidiotus harrisii* [= *Chionaspis furfurus*] infests both trees.

580. [WALSH, B. D., and C. V. RILEY.] Gigantic rhinoceros beetle. <Amer. Ent., April, 1869, v. 1, p. 168.

Answer to inquiry of F. G. Smith; characters of *Dynastes tityrus*.

581. [WALSH, B. D., and C. V. RILEY.] Bee queries. <Amer. Ent., April, 1869, v. 1, p. 168.

Answer to inquiry of W. R. Howard; *Galleria cereana* always injurious; a new swarm composed of both old and new bees.

582. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., April, 1869, v. 1, p. 168.

Answer to inquiry of W. W. Butterfield; characters of *Clytus* [=*Neoclytus*] *caprœa*. (See No. 560.)

583. [WALSH, B. D., and C. V. RILEY.] Elm-tree borer. <Amer. Ent., April, 1869, v. 1, p. 168.

Answer to inquiry of W. M. Gregory; *Saperda lateralis* and *Dryobius sexfasciatus* attack the elm in the larva state. (See No. 696.)

584. [WALSH, B. D., and C. V. RILEY.] The chinch-bug (*Micropus leucopterus* Say). <Amer. Ent., 1869, v. 1, May, pp. 169–177, fig. 122; June, pp. 194–199, figs. 135–139. Reprint: <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 15–37, figs. 1–10.

See No. 1127 for synopsis of contents.

585. [WALSH, B. D., and C. V. RILEY.] The grape-berry moth (*Penthina vitivorana*, Packard). <Amer. Ent., May, 1869, v. 1, pp. 177–179, figs. 123–125.

Natural history, ravages, and means against *Penthina vitivorana* [=*Eudemis botrana*]; figures, larva, pupa, cocoon, imago, and injured grape.

586. [WALSH, B. D., and C. V. RILEY.] Poisonous flour. <Amer. Ent., May, 1869, v. 1, p. 179.

Application of the term weevil; vesicatory properties of *Sitophilus* [=*Calandra*] *granaria*; poisonous nature of flour made from wheat infested by these insects.

587. [WALSH, B. D., and C. V. RILEY.] Mounding peach-trees. <Amer. Ent., May, 1869, v. 1, pp. 180–181, fig. 126.

Mounding as a means against *Sannina exitiosa*; figures ♂ and ♀ of the same.

588. [WALSH, B. D., and C. V. RILEY.] Going it blind. <Amer. Ent., May, 1869, v. 1, pp. 182–183.

Remarks on the failure of persons to observe correctly.

589. [WALSH, B. D., and C. V. RILEY.] Another new Curculio humbug. <Amer. Ent., May, 1869, v. 1, p. 183.

Extract from "agricultural paper," with comments on proposed means against *Conotrachelus nenuphar*.

590. [WALSH, B. D., and C. V. RILEY.] Rear-horses *vs.* grasshoppers. <Amer. Ent., May, 1869, v. 1, p. 184, figs. 127–128.

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591. [WALSH, B. D., and C. V. RILEY.] Apple tree plant-lice. (*Aphis mali*, Linn.) <Amer. Ent., May, 1869, v. 1, p. 184.

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592. [WALSH, B. D., and C. V. RILEY.] Crack-jaw names. <Amer. Ent., May, 1869, v. 1, p. 184.

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593. [WALSH, B. D., and C. V. RILEY.] Send plenty of specimens. <Amer. Ent., May, 1869, v. 1, p. 185.

Reasons why several specimens of insects should be sent for examination.

594. [WALSH, B. D., and C. V. RILEY.] White-grub fungus. <Amer. Ent., May, 1869, v. 1, p. 186, fig. 129.

Answer to inquiries of J. Smith and of T. J. Freeman; larva of *Lachnosterna fusca* infested with *Cordyceps ravenelii*; figure of infested larva.

595. [WALSH, B. D., and C. V. RILEY.] "Buck fly." <Amer. Ent., May, 1869, v. 1, p. 186.

Answer to inquiry of G. W. Copley; characters of larva and imago of *Saturnia* [= *Hemileuca*] *maia*; food-plants of the larva.

596. [WALSH, B. D., and C. V. RILEY.] Swarms of minute flies in rooms. <Amer. Ent., May, 1869, v. 1, p. 186.

Answer to inquiry of S. S. Rathvon; habitat of larva of *Sciara* sp.

597. [WALSH, B. D., and C. V. RILEY.] Worms in osage orange seed. <Amer. Ent., May, 1869, v. 1, p. 186.

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598. [WALSH, B. D., and C. V. RILEY.] Insects to be named. <Amer. Ent., May, 1869, v. 1, p. 186.

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599. [WALSH, B. D., and C. V. RILEY.] The spotted lady-bird. <Amer. Ent., May, 1869, v. 1, p. 186, fig. 130.

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600. [WALSH, B. D., and C. V. RILEY.] Eggs of the white-marked tussock moth. <Amer. Ent., May, 1869, v. 1, p. 186.

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601. [WALSH, B. D., and C. V. RILEY.] Owl's pellets. <Amer. Ent., May, 1869, v. 1, p. 187.

Answer to inquiry of C. H. G.; presence of injurious insects in the pellets disgorged by owls [= hawks]. See No. 643.

602. [WALSH, B. D., and C. V. RILEY.] Crab-apple borers. <Amer. Ent., May, 1869, v. 1, p. 187.

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603. [WALSH, B. D., and C. V. RILEY.] Mosquitoes. <Amer. Ent., May, 1869, v. 1, p. 187.

Answer to inquiry of A. M. Abbott; life-habits of *Culicidæ*; benefits derived from the same.

604. [WALSH, B. D., and C. V. RILEY.] Large silken cocoon. <Amer. Ent., May, 1869, v. 1, p. 187.

Answer to inquiry of W. W. Butterfield; food-habits of *Attacus promethea*.

605. [WALSH, B. D., and C. V. RILEY.] Bugs in alcohol. <Amer. Ent., May, 1869, v. 1, p. 187.

Answer to inquiry of D. P. Smith; alcohol as a means of preserving insects.

606. [WALSH, B. D., and C. V. RILEY.] Borer in plum-twig. <Amer. Ent., May, 1869, v. 1, p. 187.

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607. [WALSH, B. D., and C. V. RILEY.] Eggs of cut-worm moth. <Amer. Ent., May, 1869, v. 1, p. 188, fig. 131.

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608. [WALSH, B. D., and C. V. RILEY.] Snow fleas. <Amer. Ent., May, 1869, v. 1, p. 188.

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609. [WALSH, B. D., and C. V. RILEY.] Fuzzy galls on blackberry-twigs. <Amer. Ent., May, 1869, v. 1, p. 188.

Answer to inquiry of J. Huggins; characters of *Diastrophus cuscutæformis* and its gall.

610. [WALSH, B. D., and C. V. RILEY.] Pithy galls on blackberry-twigs. <Amer. Ent., May, 1869, v. 1, p. 188.

Answer to inquiry of T. W. Gordon; characters of the gall made by *Diastrophus nebulosus*.

611. [WALSH, B. D., and C. V. RILEY.] Moth eggs. <Amer. Ent., May, 1869, v. 1, p. 188.

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612. [WALSH, B. D., and C. V. RILEY.] Horse-hair snakes. <Amer. Ent., May, 1869, v. 1, p. 188.

Answer to inquiry of A. M. Abbott; characters and habitats of *Gordiacæa*.

613. [WALSH, B. D., and C. V. RILEY.] Imitative butterflies. <Amer. Ent., June, 1869, v. 1, pp. 189–193, figs. 132–134.

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614. [WALSH, B. D., and C. V. RILEY.] Cabbage-worms upon gilly-flowers. <Amer. Ent., June, 1869, v. 1, p. 199.

Habits and food-plants, seasons, and synonyms of *Plutella cruciferarum*.

615. [WALSH, B. D., and C. V. RILEY.] "Wasps and their habits." <Amer. Ent., June, 1869, v. 1, p. 200.

Comments on letter of S. S. Rathvon; species having essentially different habits though externally indistinguishable should be considered specifically distinct.

616. [WALSH, B. D., and C. V. RILEY.] The social wasps. <Amer. Ent., June, 1869, v. 1, p. 201.

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617. [WALSH, B. D., and C. V. RILEY.] Mounding peach-trees. <Amer. Ent., June, 1869, v. 1, pp. 201–202.

Comments on letter of R. L. Wells; success of the mounding system against *Ægeria* [=*Sannina*] *exitiosa*.

618. [WALSH, B. D., and C. V. RILEY.] Out of evil there cometh good. <Amer. Ent., June, 1869, v. 1, p. 202.

Probable abundance of the fruit crop in southern Illinois and in Missouri in 1869 due to the pruning of the trees by *Tibicen septendecim* in 1868.

619. [WALSH, B. D., and C. V. RILEY.] The periodical Cicada. <Amer. Ent., June, 1869, v. 1, p. 202.

Extract from No. 474; request for information of the appearance of *Cicada* [=*Tibicen*] *septendecim* in any part of the United States in 1869.

620. [WALSH, B. D., and C. V. RILEY.] The Curculio scarcer than last year. <Amer. Ent., June, 1869, v. 1, p. 202.

Extract from letter of A. M. Brown; comparative scarcity of *Conotrachelus nenuphar* in 1869.

621. [WALSH, B. D., and C. V. RILEY.] The American Entomological Society. <Amer. Ent., June, 1869, v. 1, p. 203.

Notice of the formation, publications, aims, and needs of the American Entomological Society; proposition for the raising of a fund for the support of the society.

622. [WALSH, B. D., and C. V. RILEY.] Remarkable peculiarity in the insect world. <Amer. Ent., June, 1869, v. 1, p. 204.

Insects contrasted with animals of other groups; as a rule they produce but one brood of offspring in the course of their lives.

623. [WALSH, B. D., and C. V. RILEY.] On our table. <Amer. Ent., June, 1869, v. 1, pp. 204–205.

Notices of: The Harris correspondence; The butterflies of North America, by W. H. Edwards; Guide to the study of insects, by A. S. Packard, jr.

624. [WALSH, B. D., and C. V. RILEY.] Cannibal mites. <Amer. Ent., June, 1869, v. 1, p. 205.

Answer to inquiry of C. S. Davis; *Trombidium* sp. found preying on grasshopper eggs.

625. [WALSH, B. D., and C. V. RILEY.] Gnats. <Amer. Ent., June, 1869, v. 1, p. 205.

Answer to inquiry of W. O. Hiskey; distinctive characters of *Culex* and *Chironomus*; appearance of "clouds" of *Chironomus*.

626. [WALSH, B. D., and C. V. RILEY.] Cut-worms severing cabbage plants. <Amer. Ent., June, 1869, v. 1, p. 205.

Answer to inquiry of N. C. Burch; characters of the larva of *Agrotis telifera* [=*ypsilon*].

627. [WALSH, B. D., and C. V. RILEY.] Beetle named. <Amer. Ent., June, 1869, v. 1, p. 205.

Answer to inquiry of J. M. Shaffer; *Anisodactylus baltimorensis* flying in great numbers at Fairfield, Iowa.

628. [WALSH, B. D., and C. V. RILEY.] Tiger beetles. <Amer. Ent., June, 1869, v. 1, p. 205.

Answer to inquiry of J. M. Shaffer; habitat of *Cicindela vulgaris*.

629. [WALSH, B. D., and C. V. RILEY.] Cocoons and chrysalids named. <Amer. Ent., June, 1869, v. 1, p. 206.

Answer to inquiry of A. S. Fuller; characters of larva and imago of *Ceratocampa* [= *Citheronia*] *regalis*; food-plants of its larva; characters of the cocoons of *Attacus promethea*, *A. cecropia*, *A.* [= *Telea*] *polyphemus*, and of *Thyridopteryx ephemeræformis*.

630. [WALSH, B. D., and C. V. RILEY.] White-lined morning Sphinx. <Amer. Ent., June, 1869, v. 1, p. 206.

Answer to inquiry of S. Blanchard; characters, transformations, habits, and distribution of *Deilephila lineata*; food-plants of its larva.

631. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., June, 1869, v. 1, p. 206.

Answer to inquiry of W. W. Butterfield; identification of insects sent; differences between the spring and autumn broods of *Drasteria erechtea*.

632. [WALSH, B. D., and C. V. RILEY.] Peach-twig borer. <Amer. Ent., June, 1869, v. 1, p. 206, fig. 140.

Answer to inquiry of W. Muir; characters, habits, and figure of the larva of *Gortyna nitela*.

633. [WALSH, B. D., and C. V. RILEY.] The apple-twig borer. <Amer. Ent., June, 1869, v. 1, p. 206, fig. 141.

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634. [WALSH, B. D., and C. V. RILEY.] Apple-tree borers on south side of trees. <Amer. Ent., June, 1869, v. 1, p. 206.

Answer to inquiry of J. F. Wielandy; preference shown for the south and southwest sides of trees by the larva of *Chrysobothris femorata*.

635. [WALSH, B. D., and C. V. RILEY.] Cocoons of the Cecropia moth. <Amer. Ent., June, 1869, v. 1, p. 206.

Answer to inquiry of T. W. Gordon; comparison between the cocoons of *Telea polyphemus* and *Attacus cecropia*.

636. [WALSH, B. D., and C. V. RILEY.] Flea-beetles. <Amer. Ent., June, 1869, v. 1, p. 206.

Answer to inquiry of F. Hecker; characters of an undescribed *Longitarsus* infesting wheat fields.

637. [WALSH, B. D., and C. V. RILEY.] Strawberry bugs. <Amer. Ent., June, 1869, v. 1, p. 207.

Answer to inquiry of J. M. Pearson; characters, ravages, and means against *Corimelæna pulicaria*.

638. [WALSH, B. D., and C. V. RILEY.] Eggs on apple-trees. <Amer. Ent., June, 1869, v. 1, p. 207, fig. 142.

Answer to inquiry of H. Compton; characters of eggs of *Sinea diadema*; figure of the imago; its value as a destroyer of canker-worms.

639. [WALSH, B. D., and C. V. RILEY.] Lady-bird larvæ. <Amer. Ent., June, 1869, v. 1, p. 207, fig. 143.

Answer to inquiry of E. S. Foster; characters of the larva of *Hippodamia convergens*; figures its larva, pupa, and imago; usefulness of *Coccinellidæ*.

640. [WALSH, B. D., and C. V. RILEY.] White-grub fungus, again. <Amer. Ent., June, 1869, v. 1, p. 207, fig. 144.

Answer to inquiry of W. C. Holmes; figures larva of *Lachnosterna fusca* attacked by *Cordyceps ravenelii*.

641. [WALSH, B. D., and C. V. RILEY.] Bag-worms. <Amer. Ent., June, 1869, v. 1, p. 207.

Answer to inquiry of C. Parry; means against *Thyridopteryx ephemeræformis*.

642. [WALSH, B. D., and C. V. RILEY.] Tent-caterpillar. <Amer. Ent., June, 1869, v. 1, p. 208, fig. 145.

Answer to inquiry of S. Blanchard; characters of the imago and figures of the early stages of *Clisiocampa americana*; means against the same.

643. [WALSH, B. D., and C. V. RILEY.] Hawk's pellets. <Amer. Ent., June, 1869, v. 1, p. 208.

Answer to inquiry of C. H. G.; insectivorous habits of *Buteo pennsylvanicus*. See No. 601.

644. [WALSH, B. D., and C. V. RILEY.] Plant lice on berberry. <Amer. Ent., June, 1869, v. 1, p. 208.

Answer to inquiry of J. R. Preston; means against *Aphididæ*.

645. [WALSH, B. D., and C. V. RILEY.] Tent-caterpillar of the forest. <Amer. Ent., June, 1869, v. 1, p. 208, fig. 146.

Answer to inquiry of G. Whitcomb; characters, habits, parasites, means against, and figure of larva of *Clisiocampa sylvatica* [= *disstria*].

646. [WALSH, B. D., and C. V. RILEY.] Cotton insects. <Amer. Ent., July, 1869, v. 1, pp. 209–214, fig. 147–151.

Descriptions and figures of all stages of *Aletia xylina* and of *Heliothis armigera*; habits, seasons, ravages, food-plants of, and means against the same; figures larva of *Clisiocampa sylvatica* [= *disstria*].

647. [WALSH, B. D., and C. V. RILEY.] The true Army-worm (*Leucania unipuncta* Haworth). <Amer. Ent., July, 1869, v. 1, pp. 214–217, fig. 152–155.

Descriptions and figures of larva, pupa, and imago of *Leucania unipuncta*; seasons, ravages, and enemies of the same; figure of *Exorista militaris* [= *Nemoræa leucaniæ*].

648. [WALSH, B. D., and C. V. RILEY.] Belated individuals of the periodical Cicada. <Amer. Ent., July, 1869, v. 1, p. 217.

Occurrence of scattering individuals of *Tibicen septendecim* in years before or after their regular period.

649. [WALSH, B. D., and C. V. RILEY.] Is the Curculio scarcer than it was last year? <Amer. Ent., July, 1869, v. 1, pp. 217, 218.

Record of observations to prove the comparative scarcity of *Conotrachelus nenuphar* during 1869.

650. [WALSH, B. D., and C. V. RILEY.] To destroy Colorado potato bugs. <Amer. Ent., July, 1869, v. 1, p. 219.

Reprint of communication of G. Liddle, with comments; Paris green as a means against *Doryphora 10-lineata*.

651. [WALSH, B. D., and C. V. RILEY.] Dr. Hull's Curculio-catcher. <Amer. Ent., June, 1869, v. 1, pp. 220–221, fig. 156.

Description and figure of Hull's Curculio-catcher.

652. [WALSH, B. D., and C. V. RILEY.] The New York weevil (*Ithycerus noveboracensis*, Forster). <Amer. Ent., July, 1869, v. 1, pp. 221–222, fig. 157.

Habits, food-plants, distribution, description, and figure of larva and imago of *Ithycerus noveboracensis*; means against the same.

653. [WALSH, B. D., and C. V. RILEY.] Mounding peach-trees again. <Amer. Ent., July, 1869, v. 1, p. 223.

Letter of A. Dean, with comments; characters and habitat of *Mycetophila persicæ*.

654. [WALSH, B. D., and C. V. RILEY.] Overcrowded. <Amer. Ent., July, 1869, v. 1, p. 223.

Duties of a State entomologist; impossibility of answering inquiries received during the past month.

655. [WALSH, B. D., and C. V. RILEY.] No air-holes needed in sending insects. <Amer. Ent., July, 1869, v. 1, p. 223.

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656. [WALSH, B. D., and C. V. RILEY.] Plum-leaf worms. <Amer. Ent., July, 1869, v. 1, p. 223.

Answer to inquiry of W. D. Hiskey; characters of larva of *Lyda* sp.

657. [WALSH, B. D., and C. V. RILEY.] Seed-corn maggot. <Amer. Ent., July, 1869, v. 1, p. 224, figs. 138–139.

Answer to inquiry of G. Pauls; characters, ravages, means against, and figure of larva of *Anthomyia zeas*; characters of the imago; figure of the puparium.

658. [WALSH, B. D., and C. V. RILEY.] Cut-worms. <Amer. Ent., July, 1869, v. 1, p. 224.

Answer to inquiry of N. C. Birch; ravages of *Agrotis telifera* [=*ypsilon*].

659. [WALSH, B. D., and C. V. RILEY.] New York weevil. <Amer. Ent., July, 1869, v. 1, p. 224.

Answer to inquiries of D. H. Kauffman and of W. D. Turrill; ravages of *Ithycerus noveboracensis*.

660. [WALSH, B. D., and C. V. RILEY.] Insects around peach-trees. <Amer. Ent., July, 1869, v. 1, p. 224.

Answer to inquiry of G. C. Brodhead; larvæ of *Asilus* sp. and of *Mycetophila persicæ* found around roots of peach-trees.

661. [WALSH, B. D., and C. V. RILEY.] Large green worm in a peach. <Amer. Ent., July, 1869, v. 1, p. 224.

Answer to inquiry of G. Wilgus; characters and food-habits of an undetermined larva found in a peach.

662. [WALSH, B. D., and C. V. RILEY.] Ichneumon flies. <Amer. Ent., July, 1869, v. 1, p. 224.

Answer to inquiry of H. Klinehaus; characters and figure of cocoons of *Microgaster* sp.

663. [WALSH, B. D., and C. V. RILEY.] Raspberry worms. <Amer. Ent., July, 1869, v. 1, p. 224.

Answer to inquiry of B. Borden; characters and ravages of *Selandria* [=*Monophadnus*] *rubi*.

664. [WALSH, B. D., and C. V. RILEY.] Hairy grape-leaf folders. <Amer. Ent., July, 1869, v. 1, p. 224.

Answer to inquiry of A. C. Davis; characters of larva and imago of *Pterophorus* [= *Oxyptilus*] *periscelidactylus*.

665. [WALSH, B. D., and C. V. RILEY.] Row of eggs in maple-twigs. <Amer. Ent., July, 1869, v. 1, p. 224.

Answer to inquiry of J. Bower; characters of eggs of undetermined katydid.

666. [WALSH, B. D., and C. V. RILEY.] Butterfly named. <Amer. Ent., July, 1869, v. 1, p. 224.

Answer to inquiry of A. R. Bodley; characters of *Papilio marcellus*; food-plants of its larva.

667. [WALSH, B. D., and C. V. RILEY.] Grasshopper's eggs. <Amer. Ent., July, 1869, v. 1, p. 224.

Answer to inquiry of E. P. Burlingame; characters of the eggs of an undetermined grasshopper and of the imago of *Œdipoda* [= *Dissosteria*] *carolina*.

668. [WALSH, B. D., and C. V. RILEY.] Asilus fly larvæ. <Amer. Ent., July, 1869, v. 1, p. 225, figs. 161–162.

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669. [WALSH, B. D., and C. V. RILEY.] New insect-foe of the blackberry. <Amer. Ent., July, 1869, v. 1, p. 225.

Answer to inquiry of C. Parry; comparative characters of *Aphididæ* and *Psyllidæ*; habits of *Psylla rubi* [= *Trioza tripunctata*].

670. [WALSH, B. D., and C. V. RILEY.] Army-worm. <Amer. Ent., July, 1869, v. 1, p. 225.

Answer to inquiry of J. H. Butts; ravages and food-plants of *Leucania unipuncta*.

671. [WALSH, B. D., and C. V. RILEY.] Green grape-vine worm. <Amer. Ent., July, 1869, v. 1, p. 225, fig. 163.

Answer to inquiry of G. Pauls; characters, food-plants, and figure of larva of *Pyrophila pyramidoides*.

672. [WALSH, B. D., and C. V. RILEY.] Rose slug. <Amer. Ent., July, 1869, v. 1, p. 225.

Answer to inquiries of G. W. Copley and B. S. Morris; characters, ravages, and means against *Selandria* [= *Monostegia*] *rosæ*.

673. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., July, 1869, v. 1, p. 225.

Answer to inquiry of J. Weed; food-habits of *Leptostylus aculiferus* and of *Podabrus modestus*.

674. [WALSH, B. D., and C. V. RILEY.] Chrysalis of the virgin tiger moth. <Amer. Ent., July, 1869, v. 1, p. 225.

Answer to inquiry of C. Mallinckrodt; characters of *Arctia virgo*; supposed food-plants of its larva.

675. [WALSH, B. D., and C. V. RILEY.] Clover-worms. <Amer. Ent., July, 1869, v. 1, p. 226, fig. 164.

Answer to inquiry of E. P. Flanders; characters of *Asopia costalis*; habits of its larva; figures larva, pupa, cocoon, and imago.

676. [WALSH, B. D., and C. V. RILEY.] Raspberry brand. <Amer. Ent., July, 1869, v. 1, p. 226.

Answer to inquiry of J. M. Beecher; larva of small gnat feeding on raspberry-brand.

677. [WALSH, B. D., and C. V. RILEY.] Rose-worms. <Amer. Ent., July, 1869, v. 1, p. 226.

Answer to inquiry of G. S. Grover; character, ravages, food-plants, and means against *Heliothis margidens* [= *Pyrrhia exprimens*].

678. [WALSH, B. D., and C. V. RILEY.] Plum-tree plant-lice. <Amer. Ent., July, 1869, v. 1, p. 226, figs. 165–167.

Answer to inquiry of T. W. Gordon; characters of *Aphis prunifoliæ* and *A.* [= *Myzus*] *cerasi*; ravages, enemies, and means against *Aphididæ*; figures larva of coccinellid, syrphid and hemerobi!.

679. [WALSH, B. D., and C. V. RILEY.] Ichneumon-flies. <Amer. Ent., July, 1869, v. 1, p. 226.

Answer to inquiries of S. J. Throp and J. E. Trabue; life-habits of *Microgaster* sp.?

680. [WALSH, B. D., and C. V. RILEY.] A new Curculio humbug. <Amer. Ent., July, 1869, v. 1, p. 226.

Answer to inquiry of E. P. Flanders; uselessness of a patent lamp for destroying *Conotrachelus nenuphar*.

681. [WALSH, B. D., and C. V. RILEY.] Sweet-potato beetles. <Amer. Ent., July, 1869, v. 1, p. 227.

Answer to inquiries of Subscriber and A. E. Trabue; food-habits and characters of larva and imago of *Coptocycla aurichalcea* and of *C.* [= *Cassida*] *bivittata*.

682. [WALSH, B. D., and C. V. RILEY.] Injured strawberry and grape-vines. <Amer. Ent., July, 1869, v. 1, p. 227.

Answer to inquiry of W. P. Pierson; ravages of *Capsus oblineatus* [= *Lygus pratensis*].

683. [WALSH, B. D., and C. V. RILEY.] Plum-tree insects. <Amer. Ent., July, 1869, v. 1, p. 227.

Answer to inquiry of J. F. Waters; characters of *Bibio albipennis*; food-habits of its larva.

684. [WALSH, B. D., and C. V. RILEY.] Apple-tree bugs. <Amer. Ent., July, 1869, v. 1, p. 227.

Answer to inquiry of W. L. Youse; character of *Brochymena annulata*.

685. [WALSH, B. D., and C. V. RILEY.] Hickory-stem gall-louse. <Amer. Ent., July, 1869, v. 1, p. 227.

Answer to inquiry of B. F. Long; characters of galls of *Phylloxera caryæcaulis*; food-habits of *Thrips*.

686. [WALSH, B. D., and C. V. RILEY.] Grape-vine leaf-hopper. <Amer. Ent., July, 1869, v. 1, p. 227.

Answer to inqhiry of R. M. Copeland; means against *Tettigonia* [= *Typhlocyba*] *vitis*.

687. [WALSH, B. D., and C. V. RILEY.] Twelve-spotted Diabrotica. <Amer. Ent., July, 1869, v. 1, p. 227, fig. 168.

Answer to inquiries of E. S. Foster and R. D. Parker; characters and means against *Diabrotica 12-punctata*; figure of the same.

688. [WALSH, B. D., and C. V. RILEY.] The caterpillar of the forest. <Amer. Ent., July, 1869, v. 1, p. 227.

Answer to inquiry of M. McKenzie; food-habits and means against *Clisiocampa sylvatica* [=*disstria*].

689. [WALSH, B. D., and C. V. RILEY.] Strawberry destroyer. <Amer. Ent., July, 1869, v. 1, p. 227.

Answer to inquiry of G. W. Copley; habits of unknown strawberry destroyer.

690. [WALSH, B. D., and C. V. RILEY.] Eggs of bugs on strawberry. <Amer. Ent., July, 1869, v. 1, p. 227.

Answer to inquiry of A. S. Fuller; characters of eggs of unknown reduvid attacked by parasites.

691. [WALSH, B. D., and C. V. RILEY.] Frog-spittle insects. <Amer. Ent., July, 1869, v. 1, p. 228. Reprint: <Cultivator and Country Gentleman, 29 July, 1869, v. 34, p. 82.

Answer to inquiry of J. B. Hartwell; habits, characters, and injuries of *Aphrophora quadrangularis*.

692. [WALSH, B. D., and C. V. RILEY.] Eggs of ground-beetle. <Amer. Ent., July, 1869, v. 1, p. 228.

Answer to inquiry of E. J. Ayres; characters of eggs of undetermined ground-beetle found under bark of pear-twigs.

693. [WALSH, B. D., and C. V. RILEY.] New insect-foe of the potato. <Amer. Ent., July, 1869, v. 1, p. 228.

Answer to inquiry of I. Hicks; food-habits of *Cassida* [= *Coptocycla*] *clavata*.

694. [WALSH, B. D., and C. V. RILEY.] Tomato-stalk borer. <Amer. Ent., July, 1869, v. 1, p. 228.

Answer to inquiry of E. J. Ayres; *Gortyna nitela* injurious to tomato-stalks.

695. [WALSH, B. D., and C. V. RILEY.] Breeding cages. <Amer. Ent., July, 1869, v. 1, p. 228.

Answer to inquiry of H. S. Redney; description of cage for breeding insects.

696. [WALSH, B. D., and C. V. RILEY.] Elm-tree borer. <Amer. Ent., July, 1869, v. 1, p. 228.

Answer to inquiry of W. M. Gregory; characters and food-habits of *Physocnemum brevilineum*. See No. 583.

697. [WALSH, B. D., and C. V. RILEY.] Peach-twig borer. <Amer. Ent., July, 1869, v. 1, p. 228.

Answer to inquiry of G. Fisher; means against undetermined lepidopterous borer in twigs of peach.

698. [WALSH, B. D., and C. V. RILEY.] Eggs of periodical Cicada in savin-twig. <Amer. Ent., July 1869, v. 1, p. 228.

Answer to inquiry of J. A. Greason; *Tibicen septendecim* ovipositing in twigs of *Juniperus sabina*.

699. [WALSH, B. D., and C. V. RILEY.] Elm-tree saw-fly. <Amer. Ent., July, 1869, v. 1, p. 228.

Answer to inquiry of A. R. Whitney; characters of larva and imago of *Cimbex laportei* [=*americana*]; food-plants of its larva.

700. [WALSH, B. D., and C. V. RILEY.] Snout-beetle. <Amer. Ent., July, 1869, v. 1, p. 228.

Answer to inquiry of H. Kleinhaus; supposed food-habits of *Hylobius confusus*.

701. [WALSH, B. D., and C. V. RILEY.] The close of the first volume. <Amer. Ent., August, 1869, v. 1, p. 229.

Prospectus of the second volume of the *American Entomologist*.

702. [WALSH, B. D., and C. V. RILEY.] The Royal horned caterpillar. (*Ceratocampa* (*Citheronia*) *regalis*, Fabr.). <Amer. Ent., August, 1869, v. 1, pp. 230–231, pl. 1.

Habits, seasons, sexual characters, food-plants, and vernacular names of *Citheronia regalis*; descriptions and figures of larva and pupa; figure of larva, pupa, and imago.

703. [WALSH, B. D., and C. V. RILEY.] Comparative scarcity of the Curculio again. <Amer. Ent., August, 1869, v. 1, p. 241.

Observations on the comparative abundance of *Conotrachelus nenuphar* during the early summer of 1869.

704. [WALSH, B. D., and C. V. RILEY.] A possible cause of the bee disease. <Amer. Ent., August, 1869, v. 1, pp. 241–242.

Reprint of article by P. H. Philbrook (Amer. Bee Journal, May, 1869), with comments; dipterous enemies of the honey-bee.

705. [WALSH, B. D., and C. V. RILEY.] Ash and mountain ash. <Amer. Ent., August, 1869, v. 1, pp. 243–244.

Criticisms of paper of H. Shimer (Trans. Ill. State Hortic. Soc., 1868).

706. [WALSH, B. D., and C. V. RILEY.] How the Curculio flies by night. <Amer. Ent., August, 1869, v. 1, p. 244.

Extract from lecture by I. P. Trimble, with comment.

707. [WALSH, B. D., and C. V. RILEY.] The periodical Cicada; our first brood established. <Amer. Ent., August, 1869, v. 1, p. 244.

Appearance in Connecticut of a brood of *Tibicen septendecim* in 1869.

708. [WALSH, B. D., and C. V. RILEY.] Be on the guard. <Amer. Ent., August, 1869, v. 1, p. 244.

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709. [WALSH, B. D., and C. V. RILEY.] Prophecy fulfilled. <Amer. Ent., August, 1869, v. 1, p. 244.

Spread of *Doryphora* 10-*lineata* through Michigan.

710. [WALSH, B. D., and C. V. RILEY.] A poisonous worm. <Amer. Ent., August, 1869, v. 1, p. 245.

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711. [WALSH, B. D., and C. V. RILEY.] Wheat midge, alias milk weevil, alias red weevil. <Amer. Ent., August, 1869, v. 1, p. 245.

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712. [WALSH, B. D., and C. V. RILEY.] Large fish-fly. <Amer. Ent., August, 1869, v. 1, p. 245.

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713. [WALSH, B. D., and C. V. RILEY.] Cottonwood leaf-galls. <Amer. Ent., August, 1869, v. 1, p. 245.

Answer to inquiry of J. B. Taylor; habits of *Pemphigus populicaulis*; characters of its gall.

714. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., August, 1869, v. 1, p. 245.

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715. [WALSH, B. D., and C. V. RILEY.] Four-lined leaf-bug on currant. <Amer. Ent., August, 1869, v. 1, p. 246.

Answer to inquiry of M. B. Bateman; characters, habits, and means against *Capsus 4-vittatus* [= *Pœcilocapsus lineatus*].

716. [WALSH, B. D., and C. V. RILEY.] Bee moth. <Amer. Ent., August, 1869, v. 1, p. 246, fig. 182.

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717. [WALSH, B. D., and C. V. RILEY.] Canker-worm parasites. <Amer. Ent., August, 1869, v. 1, p. 246.

Answer to inquiry of J. Petit; mention of *Microgaster* sp., parasitic on *Anisopteryx*.

718. [WALSH, B. D., and C. V. RILEY.] Beetles swarming about the lawn. <Amer. Ent., August, 1869, v. 1, p. 246.

Answer to inquiry of S. Thompson; characters of *Gymnetis* [= *Allorhina*] *nitida*; habits of its larva.

719. [WALSH, B. D., and C. V. RILEY.] Tiger-beetle larva. <Amer. Ent., August, 1869, v. 1, p. 246.

Answer to inquiry of R. J. Dodge; characters and habits of larva of *Cicindelidæ*.

720. [WALSH, B. D., and C. V. RILEY.] Large compound gall on grape-vine. <Amer. Ent., August, 1869, v. 1, p. 247, fig. 183.

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721. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., August, 1869, v. 1, p. 247.

Answer to inquiry of M. Treat; habits of larva of *Temnochila* [= *Trogosita*] *virescens*, of *Aplodes* [= *Synchlora*] *rubivora*, and of *Calosoma calidum*.

722. [WALSH, B. D., and C. V. RILEY.] Destructive larvæ. <Amer. Ent., August, 1869, v. 1, p. 247.

Answer to inquiry of B. F. Lee; ravages of an undetermined larva; parasites of *Saturnia* [= *Hemileuca*] *maia*.

723. [WALSH, B. D., and C. V. RILEY.] Eggs of tree-cricket on grape-vine. <Amer. Ent., August, 1869, v. 1, p. 247.

Answer to inquiry of B. F. Lee; characters of eggs of *Œcanthus niveus*; carnivorous habits of the larva of the same.

724. [WALSH, B. D., and C. V. RILEY.] Grape-vine leaf-gall. <Amer. Ent, August, 1869, v. 1, p. 248, fig. 184.

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725. [WALSH, B. D., and C. V. RILEY.] Grape-vine insects. <Amer. Ent., August, 1869, v. 1, p. 248.

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726. [WALSH, B. D., and C. V. RILEY.] Museum pests. <Amer. Ent., August, 1869, v. 1, p. 248.

Answer to inquiry of C. P. Faulkner; ravages of *Dermestes lardarius*.

727. [WALSH, B. D., and C. V. RILEY.] Wheat maggots. <Amer. Ent., August, 1869, v. 1, p. 248.

Answer to inquiry of S. K. Faulkner; characters of larva of *Meromyza americana* injurious to heads of wheat.

728. [WALSH, B. D., and C. V. RILEY.] Parasites on "hateful grasshopper." <Amer. Ent., August, 1869, v. 1, p. 249.

Answer to inquiry of S. K. Faulkner; characters and habits of *Astoma* [= *Trombidium*] *locustarum*.

729. [WALSH, B. D., and C. V. RILEY.] Crippled moths. <Amer. Ent., August, 1869, v. 1, p. 248.

Answer to inquiry of C. P. Faulkner; conditions needed to enable moths to expand their wings; means by which insects walk on smooth surfaces.

730. [WALSH, B. D., and C. V. RILEY.] Insects on the oleander. <Amer. Ent., August, 1869, v. 1, p. 249, fig. 185.

Answer to inquiry of T. W. Gordon; means against undetermined Coccid on oleander; habits and figure of *Chilocorus bivulnerus*.

731. [WALSH, B. D., and C. V. RILEY.] Insects found on apple-trees. <Amer. Ent., August, 1869, v. 1, p. 249.

Answer to inquiry of J. W. Waters; identification of the eggs of *Reduvius raptatorius* [= *Sinea diadema*]; habits of *Chilocorus bivulnerus*.

732. [WALSH, B. D., and C. V. RILEY.] Beetles named. <Amer. Ent., August, 1869, v. 1, p. 249.

Answer to inquiry of J. M. Shaffer; *Lytta atrata* [= *Epicauta pennsylvanica*] caught on rag-weed.

733. [WALSH, B. D., and C. V. RILEY.] Gigantic water-bug. <Amer. Ent., August, 1869, v. 1, p. 249, fig. 186.

Answer to inquiry of E. M. Downing; habits and figure of *Belostoma grandis* [= *americanum*].

734. [WALSH, B. D., and C. V. RILEY.] Worm eating into green tomatoes. <Amer. Ent., August, 1869, v. 1, p. 249.

Answer to inquiry of D. L. Hall; food-habits of *Gortyna nitela*.

735. [WALSH, B. D., and C. V. RILEY.] Miscellaneous. <Amer. Ent., August, 1869, v. 1, p. 249.

Answer to inquiry of G. W. Copley; food-habits of *Chrysochus auratus*, *Hemileuca maia*, and *Aphis* [= *Myzus*] *ribis*; habits of *Lozotænia* [= *Cacœcia*] *rosaceana*.

736. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., August, 1869, v. 1, p. 250.

Answer to inquiry of H. A. Munger; food-habits of *Cassida pallida* [= *Coptocycla aurichalcea*], *Lytta murina* [= *Macrobasis unicolor*], and of the larvæ of the species of *Prionus*.

737. [WALSH, B. D., and C. V. RILEY.] Lightning-hoppers. <Amer. Ent., August, 1869, v. 1, p. 250.

Answer to inquiry of T. W. Gordon; characters and habits of *Pœciloptera pruinosa*; vernacular names of *Fulgoridæ*, *Membracidæ*, and *Jassidæ*.

738. [WALSH, B. D., and C. V. RILEY.] Bag-worms. <Amer. Ent., August, 1869, v. 1, p. 250.

Answer to inquiries of T. W. Gordon and S. Thompson; food-habits of *Thyridopteryx ephemeræformis*.

739. [WALSH, B. D., and C. V. RILEY.] Woolly gall on white oak. <Amer. Ent., August, 1869, v. 1, p. 250, fig. 187.

Answer to inquiry of A. S. Fuller; characters and figure of the gall of *Cynips* [= *Andricus*] *seminator*.

740. [WALSH, B. D., and C. V. RILEY.] Cabbage pests. <Amer. Ent., August, 1869, v. 1, p. 250.

Answer to inquiry of J. A. Williams; characters and habits of an undetermined elaterid larva; means against the larvæ of *Elateridæ*.

741. [WALSH, B. D., and C. V. RILEY.] Bugs gathering on pear shoots. <Amer. Ent., August, 1869, v. 1, p. 250.

Answer to inquiry of E. J. Ayres; characters and habits of *Corimelæna pulicaria*.

742. [WALSH, B. D., and C. V. RILEY.] Potato-bug. <Amer. Ent., August, 1869, v. 1, p. 250.

Answer to inquiry of J. B. Cartwell; food-habits of *Cassida* [= *Coptocycla*] *clavata*.

743. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., August, 1869, v. 1, p. 251.

Answer to inquiry of H. T. Birch; *Trochilium* [= *Ægeria*] *acerni* bred from maple.

744. [WALSH, B. D., and C. V. RILEY.] Apple-tree worms. <Amer. Ent., August, 1869, v. 1, p. 251.

Answer to inquiry of C. Waters; abundance of undetermined moth (*Corycia vestaliata?*); larva of the same on apple-trees.

745. [WALSH, B. D., and C. V. RILEY.] Oak-fig gall. <Amer. Ent., August, 1869, v. 1, p. 251.

Answer to inquiry of A. Fendler; characters of the gall of *Cynips* [= *Biorhiza*] *forticornis* and of a guest-fly, *Ceroptres ficus*, inhabiting the same.

746. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., August, 1869, v. 1, p. 251.

Answer to inquiry of D. L. Phares; irregular appearance of *Cicada tredecim* [= *Tibicen septendecim*]; food-habits of *Oncideres cingulata*.

747. [WALSH, B. D., and C. V. RILEY.] Small apple-leaf worms. <Amer. Ent., August, 1869, v. 1, p. 251.

Answer to inquiry of H. Compton; means against *Spilonota oculana* [= *Tmetocera ocellana*].

748. [WALSH, B. D., and C. V. RILEY.] Rose-bug on apples. <Amer. Ent., August, 1869, v. 1, p. 251.

Answer to inquiry of A. Dean; food-plants and means against *Macrodactylus subspinosus*.

749. [WALSH, B. D., and C. V. RILEY.] Unicorn apple-tree caterpillar. <Amer. Ent., August, 1869, v. 1, p. 251.

Answer to inquiry of G. C. Brodhead; characters of the larva and imago of *Notodonta* [= *Cœlodasys*] *unicornis*; food-plants of the larva of the same.

750. [WALSH, B. D., and C. V. RILEY.] Large water beetle. <Amer. Ent., August, 1869, v. 1, p. 251.

Answer to inquiry of S. E. Mumford; characters of *Cybister fimbriolatus*. See No. 816.

751. [WALSH, B. D., and C. V. RILEY.] Beetles around peach-trees. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of E. Hollister, jr.; characters and habits of *Helops pullus* [= *æreus*].

752. [WALSH, B. D., and C. V. RILEY.] A quick traveler. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of G. C. Brodhead; characters and harmlessness of *Cermatia forceps*.

753. [WALSH, B. D., and C. V. RILEY.] Unknown moth. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of W. G. Barton; distribution of *Junonia lavinia* in Illinois.

754. [WALSH, B. D., and C. V. RILEY.] Corn-borer. <Amer. Ent., August, 1869, v. 1, p. 252.

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755. [WALSH, B. D., and C. V. RILEY.] Horns of stag-beetle. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of C. R. Edwards; larval habits of *Lucanus elaphus*.

756. [WALSH, B. D., and C. V. RILEY.] Imported gooseberry worms. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of C. P. Faulkner; means against *Nematus ribesii*.

757. [WALSH, B. D., and C. V. RILEY.] Worm on bark of walnut-tree. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of F. S. Fuller; undetermined notodontoid larva on the bark of walnut.

758. [WALSH, B. D., and C. V. RILEY.] Rotten root. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of J. M. Beecher; scavenger habits of undetermined larva feeding on dead roots of apple-trees.

759. [WALSH, B. D., and C. V. RILEY.] Large dragon-fly. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of G. S. Grover; characters and usefulness of *Æschna constricta*.

760. [WALSH, B. D., and C. V. RILEY.] Stinging larvæ. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of E. H. King; characters and urticating properties of *Saturnia* [=*Hemileuca*] *maia*; peach-blow potatoes avoided by *Doryphora* 10-*lineata*.

761. [WALSH, B. D., and C. V. RILEY.] Raspberry worms. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of E. H. Beebe; characters of larva of *Selandria* [=*Monophadnus*] *rubi*.

762. [WALSH, B. D., and C. V. RILEY.] Leaf-galls and caterpillars on the sugarberry. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of S. L. Scofield; undetermined gall on leaves of *Celtis occidentalis*; *Orgyia leucostigma* feeding on the leaves of the same.

763. [WALSH, B. D., and C. V. RILEY.] Dark grape-worm. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of T. W. G.; characters and food-plants of *Thyreus abbotii*.

764. [WALSH, B. D., and C. V. RILEY.] Too fond of honey. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of T. W. Gordon; *Cermatia forceps* found in a jar of honey.

765. [WALSH, B. D., and C. V. RILEY.] Caterpillar of polyphemus moth. <Amer. Ent., August, 1869, v. 1, p. 252.

Answer to inquiry of A. De Wyl; larva of *Telea polyphemus* feeding on plums.

766. [WALSH, B. D., and C. V. RILEY.] Why noxious insects increase upon us. <Amer. Ent., September–October, 1869, v. 2, pp. 1–2.

Reasons why noxious insects increase; review of articles by E. S. Hull, H. W. Beecher, and Puritan.

767. [WALSH, B. D., and C. V. RILEY.] Tortoise-beetles. <Amer. Ent., September–October, 1869, v. 2, pp. 2–5, figs. 1–3.

Resemblances of insects to other animals or to their surroundings; distribution, food-plants, and figure of *Deloyala* [=*Coptocycla*] *clavata*; description and figure of *Physonota quinque-punctata* n. sp. [=*unipunctata*]; figure of the larva of the same; correspondence of structural differences in larvæ with those in imagos of *Cassididæ*, and with differences in food-plants; list of insects injurious to *Solanum*; figure of pupa and imago of *Chelymorpha cribraria* [=*argus*].

768. [WALSH, B. D., and C. V. RILEY.] Scientific nomenclature. <Amer. Ent., September–October, 1869, v. 2, pp. 5–8.

Rules observed in giving specific names to animals and plants; the law of priority; nature and extent of generic subdivisions.

769. [WALSH, B. D., and C. V. RILEY.] Killing apple-worms by machinery. <Amer. Ent., September–October, 1869, v. 2, p. 9.

Extract from article of L. P. Haskell, with comment; use of rags in place of hay-bands as traps for *Carpocapsa pomonella*; destruction of the insects caught by means of a clothes-wringer.

770. [WALSH, B. D., and C. V. RILEY.] A potter wasp (*Odynerus flavipes?* Fabr.). <Amer. Ent., September–October, 1869, v. 2, p. 10, fig. 4.

Method employed by *Eumenidæ* to provision their nests; construction of the same by species of *Odynerus*; habits of *O. flavipes* in provisioning a nest with several species of larvæ; figure of the imago of the same and of the nest of a species of *Odynerus*; structure of wings and habits of *Vespidæ*, *Eumenidæ*, and fossorial wasps.

771. [WALSH, B. D., and C. V. RILEY.] Tomato-worms not poisonous. <Amer. Ent., September–October, 1869, v. 2, p. 11.

Prejudices in regard to certain animals; presence of the horn on the larvæ of almost all *Sphingidæ*; larva of *Protoparce celeus* not poisonous.

772. [WALSH, B. D., and C. V. RILEY.] Gooseberry and currant worms. <Amer. Ent., September–October, 1869, v. 2, pp. 12–22, figs. 5–11.

Need of precision in nomenclature; relations and distribution of the North American species of *Ribes*; insect enemies of the same; natural history and description of *Ellopia* [= *Eufitchia*] *ribearia*, *Nematus ventricosus* [= *ribesii*], and *Pristiphora grossulariæ*; figures larvæ and imagos of the three species and the pupa of the *Eufitchia*.

773. [WALSH, B. D., and C. V. RILEY.] Striped cucumber beetle. <Amer. Ent., September–October, 1869, v. 2, p. 24, figs. 17–19.

Answer to inquiry of M. M. Gray; description of larva, and habits, ravages of and means against the larva and imago of *Diabrotica vittata*; figures larva, pupa, and imago of the same.

774. [WALSH, B. D., and C. V. RILEY.] Leafy oak-gall. <Amer. Ent., September–October, 1869, v. 2, p. 25, fig. 20.

Answer to inquiry of B. H. B.; description and figure of the gall of *Cynips q.-frondosa*.

775. [WALSH, B. D., and C. V. RILEY.] Drop of gold. <Amer. Ent., September–October, 1869, v. 2, p. 25.

Answer to inquiry of B. H. B.; egg of *Citheronia regalis?* on shellbark-hickory; characters of eggs and oviposition of *Metapodius nasulus* [= *femoratus*].

776. [WALSH, B. D., and C. V. RILEY.] The luna moth. <Amer. Ent., September–October, 1869, v. 2, p. 25.

Answer to inquiry of G. W. Kinney; characters of *Attacus* [= *Actias*] *luna*; food-plants of the larva of the same.

777. [WALSH, B. D., and C. V. RILEY.] Hag-moth larva. <Amer. Ent., September–October, 1869, v. 2, p. 25, fig. 21.

Answer to inquiries of C. T. Farrell and M. B. Baldwin; characters of cocoon and imago of *Limacodes* [= *Phobetron*] *pithecium*; number of broods of the moth in the year; figure of the larva; occurrence of *Harpactor* [= *Milyas*] *cinctus* in Illinois.

778. [WALSH, B. D., and C. V. RILEY.] Stinging bug. <Amer. Ent., September–October, 1869, v. 2, p. 25.

Answer to inquiry of J. M. Shaffer; habits and characters of *Phymata erosa*.

779. [WALSH, B. D., and C. V. RILEY.] Pear-tree worms. <Amer. Ent., September–October, 1869, v. 2, p. 25.

Answer to inquiry of B. Hathaway; larva of *Notodonta* [=*Œdemasia*] *concinna* found on pear-tree leaves.

780. [WALSH, B. D., and C. V. RILEY.] "Dobson." <Amer. Ent., September–October, 1869, v. 2, p. 25.

Answer to inquiry of Fisherman; ignorance as to what the larva called "Dobson" is.

781. [WALSH, B. D., and C. V. RILEY.] White-pine weevil. <Amer. Ent., September–October, 1869, v. 2, p. 26, fig. 22.

Answer to inquiry of A. S. Fuller; seasons, ravages, and means against *Pissodes strobi*; figures larva, pupa, and imago of the same.

782. [WALSH, B. D., and C. V. RILEY.] Unnatural secretion of wax. <Amer. Ent., September–October, 1869, v. 2, p. 26.

Answer to inquiry of F. Brewer; description of a case of excessive secretion of wax by *Apis mellifica*.

783. [WALSH, B. D., and C. V. RILEY.] Raspberry borer. <Amer. Ent., September–October, 1869, v. 2, p. 26.

Answer to inquiry of F. A. Gates; ravages of the larva of *Oberea perspicillata* [=*bimaculata*] in blackberry and raspberry bushes; characters of the imago of *Dryocampa senatoria*; food-plants of the larva of the same.

784. [WALSH, B. D., and C. V. RILEY.] Cocoon of horn-bug. <Amer. Ent., September–October, 1869, v. 2, p. 26.

Answer to inquiry of A. R. McClutchen; characters of cocoon of *Lucanus dama?*

785. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., September–October, 1869, v. 2, p. 26, fig. 23.

Answer to inquiry of J. R. Muhleman; characters and figure of *Amphipyra* [=*Pyrophila*] *pyramidoides*; food-plants and larva of the same and of *A. pyramidea* of Europe; characters of the larva and imago of *Agnomonia anilis*; supposed food-plants of its larva.

786. [WALSH, B. D., and C. V. RILEY.] Cecropia moth caterpillar. <Amer. Ent., September–October, 1869, v. 2, p. 26.

Answer to inquiries of H. G. Lewelling and S. H. I. Green; characters and food-plants of the larva of *Attacus cecropia*.

787. [WALSH, B. D., and C. V. RILEY.] How cut-worms originate. <Amer. Ent., September–October, 1869, v. 2, p. 26.

Answer to inquiry of T. W. Gordon; cut-worms are larvæ produced from eggs of certain *Noctuidæ*.

788. [WALSH, B. D., and C. V. RILEY.] Red-humped caterpillar. <Amer. Ent., September–October, 1869, v. 2, p. 27, figs. 24–26.

Answer to inquiry of D. W. Kauffman; habits, characters, food-plants, and means against larva of *Notodonta* [=*Œdemasia*] *concinna*; figures larva, pupa, and imago of the same; poisonousness of the fluids of certain insects.

789. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., September–October, 1869, v. 2, p. 27.

Answer to inquiry of T. W. G[ordon]; characters and food-plants of *Thelia bimaculata* and of larva of *Procris* [=*Harrisina*] *americana* and *Eudamus tityrus*; characters of the imago of the last.

790. [WALSH, B. D., and C. V. RILEY.] Gilt gold-beetle. <Amer. Ent., September–October, 1869, v. 2, p. 27.

Answer to inquiry of W. H. Martin; characters and food-plants of *Chrysochus auratus*.

791. [WALSH, B. D., and C. V. RILEY.] The trumpet grape-gall. <Amer. Ent., September–October, 1869, v. 2, p. 28, fig. 27.

Answer to inquiry of D. McClaine; description and figure of galls of *Cecidomyia vitislituus* [=*viticola*]; occurrence of similar galls on several varieties of grape-vines and on leaves of hickory and hackberry.

792. [WALSH, B. D., and C. V. RILEY.] Grape-berry moth. <Amer. Ent., September–October, 1869, v. 2, p. 28.

Answer to inquiry of H. C. Barnard; ravages of *Penthina vitivorana* [=*Eudemis botrana*].

793. [WALSH, B. D., and C. V. RILEY.] Oak pruner. <Amer. Ent., September–October, 1869, v. 2, p. 28.

Answer to inquiry of T. J. Plumb; occurrence of *Elaphidion putator* [=*villosum*] at Madison, Wis.

794. [WALSH, B. D., and C. V. RILEY.] Potato-bugs. <Amer. Ent., September–October, 1869, v. 2, p. 28.

Answer to inquiry of W. R. Shelmire; ravages and food-plants of *Lytta* [=*Epicauta*] *vittata*; means against potato-eating *Meloidæ*; characters of an unknown lepidopterous larva boring in a potato-stalk; directions for packing insects.

795. [WALSH, B. D., and C. V. RILEY.] Blood-sucking cone-nose. <Amer. Ent., September–October, 1869, v. 2, p. 28.

Answer to inquiry of G. W. C.; effect of the "bite" of *Conorhinus sanguisuga*; food-habits of the same.

796. [WALSH, B. D., and C. V. RILEY.] Woolly slug-like worm on apple. <Amer. Ent., September–October, 1869, v. 2, p. 29.

Answer to inquiry of H. A. Green; food-plants and characters of larva of *Lagoa opercularis*; characters of the imago of the same; improper method of packing living insects.

797. [WALSH, B. D., and C. V. RILEY.] A water-bug. <Amer. Ent., September–October, 1869, v. 2, p. 29.

Answer to inquiry of W. V. Smith; characters of *Ranatra fusca*; habits and habitat of *Nepidæ*.

798. [WALSH, B. D., and C. V. RILEY.] Goldenrod galls. <Amer. Ent., September–October, 1869, v. 2, p. 29.

Answer to inquiry of G. W. C.; characters of galls of *Trypeta solidaginis* and *Cecidomyia solidaginis*.

799. [WALSH, B. D., and C. V. RILEY.] Oak-leaf gall. <Amer. Ent., September–October, 1869, v. 2, p. 29.

Answer to inquiry of B. H. Broadnox; description of galls of *Cecidomyia quercus-pilulæ* and *C. q.-symmetrica*; *Cynipidæ* inquilinous in galls of *Cecidomyidæ*; differences between larvæ of *Cynipidæ* and *Cecidomyidæ*; transformations of *C. q.-pilulæ* and of the *Cynips* sp., inquilinous in its gall; distinction between groups of oaks.

800. [WALSH, B. D., and C. V. RILEY.] Humble bees. <Amer. Ent., September–October, 1869, v. 2, p. 30.

Answer to inquiry of C. S. Davis; number of species and distribution of the genus *Bombus* in North America; habits of and differences between the several forms composing a society of social insects; habits of *Bombus pennsylvanicus*, *Halictus* sp., and *Andrena* sp.

801. [WALSH, B. D., and C. V. RILEY.] Can land be insured against cut-worms and other insects? <Amer. Ent., September–October, 1869, v. 2, p. 30.

Answer to inquiry of A. Willis; means against larvæ of cut-worms.

802. [WALSH, B. D., and C. V. RILEY.] Beetles named. <Amer. Ent., September–October, 1869, v. 2, p. 30.

Answer to inquiry of T. W. Hoyt, jr.; characters of *Cassida* [=*Coptocycla*] *aurichalcea* and *Brachinus americanus*; effect of the discharge made by *Brachinus* sp. upon the inside of the human mouth.

803. [WALSH, B. D., and C. V. RILEY.] Royal horned-caterpillar. <Amer. Ent., September–October, 1869, v. 2, p. 30.

Answer to inquiries of W. C. Holmes and M. G. Kern; larva of *Citheronia regalis* found feeding on *Syringa*.

804. [WALSH, B. D., and C. V. RILEY.] Parsnip caterpillar. <Amer. Ent., September–October, 1869, v. 2, p. 30.

Answer to inquiry of T. W. Hoyt, jr.; characters of larva of *Papilio asterias*.

805. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., September–October, 1869, v. 2, p. 31.

Answer to inquiry of C. P. Faulkner; identification of several beetles; habits of *Creophilus villosus*, *Listotrophus cingulatus*, *Scarites subterraneus*, and *Uloma impressa*.

806. [WALSH, B. D., and C. V. RILEY.] Beetle named. <Amer. Ent., September–October, 1869, v. 2, p. 31.

Answer to inquiry of W. Keyes; habits and characters of larva of *Calopteron terminale*; distinctness of *C. reticulatum* from *C. terminale*.

807. [WALSH, B. D., and C. V. RILEY.] Moth named. <Amer. Ent., September–October, 1869, v. 2, p. 31.

Answer to inquiry of W. G. Barton; food-plant of larva and characters of imago of *Alaria* [=*Rhodophora*] *florida*.

808. [WALSH, B. D., and C. V. RILEY.] Worm boring into cucumber. <Amer. Ent., September–October, 1869, v. 2, p. 31.

Answer to inquiries of G. W. C., O. L. Barler, and E. S. Smith; characters of larva and imago of *Phakellura* [=*Eudioptis*] *nitidalis*; food-plants of larva; characters of undetermined larva found boring in cucumbers.

809. [WALSH, B. D., and C. V. RILEY.] Caterpillar of the io moth. <Amer. Ent., September–October, 1869, v. 2, p. 31.

Answer to inquiry of Mrs. Tildesley; characters of larva and imago of *Saturnia* [= *Hyperchiria*] *io*; food-plant and urticating properties of the larva.

810. [WALSH, B. D., and C. V. RILEY.] Apple-tree worms. <Amer. Ent., September–October, 1869, v. 2, p. 32.

Answer to inquiry of H. K. Vickroy; habits and characters of larva of *Acrobasis* [= *Pempelia*] *hammondi*; habits of larva of *Phycita nebulo* [= *Acrobasis indiginella*].

811. [WALSH, B. D., and C. V. RILEY.] Stinging larvæ. <Amer. Ent., September–October, 1869, v. 2, p. 32.

Answer to inquiry of J. C. Falls; meaning of the vernacular and technical names of *Empretia stimulea*; urticating properties of lepidopterous larvæ.

812. [WALSH, B. D., and C. V. RILEY.] Lappet caterpillar on apple-tree. <Amer. Ent., September–October, 1869, v. 2, p. 32.

Answer to inquiry of W. Stark; characters of larva of *Gastropacha americana*.

813. [WALSH, B. D., and C. V. RILEY.] Spined spider. <Amer. Ent., September–October, 1869, v. 2, p. 32.

Answer to inquiries of G. W. Kinney and T. W. Gordon; characters and synonymy of *Epeira* [= *Acrosoma*] *spinea*.

814. [WALSH, B. D., and C. V. RILEY.] Dangerous looking. <Amer Ent., September–October, 1869, v. 2, p. 32.

Answer to inquiry of M. M. Kenzie; characters and sting of *Mutilla coccinea* [= *Sphærophthalma occidentalis*].

815. [WALSH, B. D., and C. V. RILEY.] Bag-worms again. <Amer. Ent., September–October, 1869, v. 2, p. 32.

Answer to inquiry of T. C. Tipton; ravages of *Thyridopteryx ephemeræformis*; harmlessness of larva of *Protoparce celeus*; habitat of larva of *Musca domestica*.

816. [WALSH, B. D., and C. V. RILEY.] Large water-beetle. <Amer. Ent., September–October, 1869, v. 2, p. 32.

Answer to inquiry of S. E. Munford; secondary sexual characters in elytra of *Cybister fimbriolatus*. See No. 750.

817. [WALSH, B. D., and C. V. RILEY.] Beetles under dead fish. <Amer. Ent., September–October, 1869, v. 2, p. 32.

Answer to inquiry of T. Ferrell; food-habits and characters of *Silpha peltata* [= *americana*].

818. [WALSH, B. D., and C. V. RILEY.] Universal remedies. <Amer. Ent., November, 1869, v. 2, pp. 33–35.

Worthlessness of any one substance as a means against insects.

819. [WALSH, B. D., and C. V. RILEY.] Tent-caterpillars and fall-web-worms. <Amer. Ent., November, 1869, v. 2, p. 39.

Critical review of article in Western Rural, August 26, 1869; seasons, habits, food-plants, and characters of *Clisiocampa americana* and *Hyphantria textor* [= *cunea*].

820. [WALSH, B. D., and C. V. RILEY.] The boll-worm or corn-worm. 2d article. (*Heliothis armigera*, Hübner.) <Amer. Ent., November, 1869, v. 2, pp. 42–44, fig. 29.

Seasons, food-plants, ravages of, and means against *Heliothis armigera*; figures of larvæ, pupa, cocoon, and imago of the same; food-plants of *Gortyna nitela*.

821. [WALSH, B. D., and C. V. RILEY.] Galls and their architects. 2d article. <Amer. Ent., 1869–1870, v. 2: November, pp. 45–50, figs. 30–32; December–January, pp. 70–74; figs. 45–47; February, pp. 103–106, figs. 68–71.

See No. 518; definition and classification of galls; descriptions and figures of galls and larvæ of *Nematus salicis-pomum*, *Euura s.-ovum*, and *E. s.-gemma* [=*orbitalis*]; habits, seasons, and descriptions of the same; habits and seasons of *Anthonomus sycophanta*, *Batrachedra salicipomonella*, and *Nematus mendicus*; differences between gall-makers and guest-flies; occurrence of distinct genera of gall-insects on plants of distinct genera; descriptions and figures of galls of *Cynips* [=*Andricus*] *quercus-seminator* and *C. q.-frondosa*; synoptic table of North American genera of *Cynipidæ Psenides*; description of *Antistrophus* n. g. and of *A. lygodesmiæ-pisum* n. sp. and its gall; description and figure of the larva and imago of *Agrilus ruficollis* and its gall; habits, food-plants of, and means against, the same; figure and description of *Baridius* [=*Ampeloglypter*] *sesostris* and its gall; habits, food-plants of, and means against, the same; characters of *Madarus ampelopsidos* [=*Ampeloglypter ater*] and its gall; habits of *Buprestidæ*.

822. [WALSH, B. D., and C. V. RILEY.] Toads in gardens. <Amer. Ent., November, 1869, v. 2, p. 50.

Value of toads as a means against noxious insects, etc., in gardens.

823. [WALSH, B. D., and C. V. RILEY.] Notes on the Tarantula-killer. <Amer. Ent., November, 1869, v. 2, p. 52.

Comments on note of C. Peabody; occurrence of *Mygale hentzii* and *Pepsis formosa* in Missouri.

824. [WALSH, B. D., and C. V. RILEY.] Swarms of lady-birds. <Amer. Ent., November, 1869, v. 2, p. 55.

Occurrence of countless millions of *Coccinellidæ* in England; their origin and movements.

825. [WALSH, B. D., and C. V. RILEY.] The squash-bug does not touch the white bush scollop. <Amer. Ent., November, 1869, v. 2, p. 55.

Coreus [=*Anasa*] *tristis* does not attack the white bush scollop variety of the squash-vine; means against the same.

826. [WALSH, B. D., and C. V. RILEY.] [Scientific names.] <Amer. Ent., November, 1869, v. 2, p. 57.

Use of English and scientific names of insects.

827. [WALSH, B. D., and C. V. RILEY.] On our table. <Amer. Ent., November, 1869, v. 2, pp. 57–58.

Notices of: Record of American entomology for the year 1868.—The Canadian entomologist.—The butterflies of North America, by W. H. Edwards.—Guide to the study of insects, by A. S. Packard, jr., etc.

828. [WALSH, B. D., and C. V. RILEY.] Locust borer. <Amer. Ent., November, 1869, v. 2, p. 58.

Answer to inquiry of J. Bagby; *Arhopalus* [= *Cyllene*] *robiniæ* ♀ undistinguishable from *A.* [= *C.*] *pictus* ♀.

829. [WALSH, B. D., and C. V. RILEY.] Saddle-back larva. <Amer. Ent., November, 1869, v. 2, p. 59, fig. 36.

Answer to inquiry of G. T. Cost; figure of the larva of *Empretia stimulea* found on Indian corn.

830. [WALSH, B. D., and C. V. RILEY.] Silk spiders. <Amer. Ent., November, 1869, v. 2, p. 59.

Answer to inquiries of G. Howe and C. W. Spaulding; characters of *Epeira* [= *Argiope*] *riparia* and *Nephila plumipes*.

831. [WALSH, B. D., and C. V. RILEY.] Entomological works. <Amer. Ent., November, 1869, v. 2, p. 59.

Answer to inquiry of S. W. Cowles; mention of works containing descriptions of North American Coleoptera and Lepidoptera; food-plants of the larva of *Eudryas unio*.

832. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., November, 1869, v. 2, p. 59.

Answer to inquiry of A. H. R. Bryant; characters of the cocoon of *Attacus cecropia* and the imago of *Mutilla coccinea* [= *Sphærophthalma occidentalis*].

833. [WALSH, B. D., and C. V. RILEY.] A new bee enemy. <Amer. Ent., November, 1869, v. 2, p. 59.

Answer to inquiry of F. Brewer; characters of an undetermined carabid larva found eating *Apis mellifica*.

834. [WALSH, B. D., and C. V. RILEY.] Thousand-legged worms. <Amer. Ent., November, 1869, v. 2, p. 59.

Answer to inquiry of J. W. Merchant; characters and poisonousness of *Scolopendra castaneiceps*; *Julus* sp. and *Polydesmus* sp. injurious to strawberries.

835. [WALSH, B. D., and C. V. RILEY.] Cabbage-worms. <Amer. Ent., November, 1869, v. 2, p. 60, figs. 37–38.

Answer to inquiry of W. C. Holmes; figures larva, pupa, and imago of *Pieris protodice*; means against cabbage-worms.

836. [WALSH, B. D., and C. V. RILEY.] The rape butterfly. Amer. Ent., November, 1869, v. 2, p. 60.

Answer to inquiry of J. E. Chase; occurrence of *Pieris rapæ* in Bangor, Me.

837. [WALSH, B. D., and C. V. RILEY.] Bad packing. <Amer. Ent., November, 1869, v. 2, p. 60.

Answer to inquiry of H. C. Beardslee; characters and food-plants of *Empretia stimulea*; food-plant of *Darapsa* [= *Ampelophaga*] *myron*; directions for sending larvæ by mail.

838. [WALSH, B. D., and C. V. RILEY.] Granddaddy long-legs. <Amer. Ent., November, 1869, v. 2, p. 60.

Answer to inquiry of W. R. Howard; vernacular names and habits of *Phalangidæ*.

839. [WALSH, B. D., and C. V. RILEY.] Borer in apple-twig. <Amer. Ent., November, 1869, v. 2, p. 60.

Answer to inquiry of G. C. Brackett; habits of *Bostrichus* [= *Amphicerus*] *bicaudatus* and *Elaphidion parallelum* [= *villosum*].

840. [WALSH, B. D., and C. V. RILEY.] Grape-vine leaf-galls. <Amer. Ent., November, 1869, v. 2, p. 61.

Answer to inquiry of W. T. Heildrup; habits and means against *Phylloxera vastatrix*; varieties of grape infested by the same.

841. [WALSH, B. D., and C. V. RILEY.] Maple-worms. <Amer. Ent., November, 1869, v. 2, p. 61.

Answer to inquiry of H. K. Vickroy; characters and ravages of *Dryocampa rubicunda* and *Acronycta americana*; food-plants of *Telea polyphemus* and *Attacus cecropia*.

842. [WALSH, B. D., and C. V. RILEY.] Melancholy chafer in apples. <Amer. Ent., November, 1869, v. 2, p. 61, fig. 39.

Answer to inquiry of J. F. Fulton; figure of *Euryomia* [=*Euphoria*] *melancholica* found boring in apples.

843. [WALSH, B. D., and C. V. RILEY.] Worms boring in cucumbers. <Amer. Ent., November, 1869, v. 2, p. 61.

Answer to inquiry of W. B. Ramson; food-habits of *Phacellura* [=*Eudioptis*] *nitidalis*.

844. [WALSH, B. D., and C. V. RILEY.] Lilac-borer. <Amer. Ent., November, 1869, v. 2, p. 61.

Answer to inquiry of T. J. Freeman; characters, affinities, and means against *Ægeria* [=*Podosesia*] *syringæ*.

845. [WALSH, B. D., and C. V. RILEY.] Burying beetles. <Amer. Ent., November, 1869, v. 2, p. 61.

Answer to inquiry of J. H. Osborn; habits of *Necrophorus marginatus* and of *Silphidæ* generally; characters of *Hylobius stupidus* [=*Pachylobius picivorus*] found on plum-trees.

846. [WALSH, B. D., and C. V. RILEY.] Wire-worms in potatoes. <Amer. Ent., November, 1869, v. 2, p. 62.

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847. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., November, 1869, v. 2, p. 62.

Answer to inquiry of J. F. Waters; unknown tortricid and *Limacodes* sp., found on apple-tree; characters of *Chariesterus antennator*.

848. [WALSH, B. D., and C. V. RILEY.] Girdled pear twigs. <Amer. Ent., November, 1869, v. 2, p. 62.

Answer to inquiry of T. A. Thorp; pear twigs girdled by *Oncideres cingulata*.

849. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., November, 1869, v. 2, p. 62.

Answer to inquiry of E. T. Dale; food-habits of *Hippodamia glacialis*, *Strachia* [=*Murgantia*] *histrionica* and *Blepharida rhois*; figure of *Hippodamia glacialis*.

850. [WALSH, B. D., and C. V. RILEY.] Tomato-feeding worm. <Amer. Ent., November, 1869, v. 2, p. 62, fig. 41.

Answer to inquiry of A. C. Davis; description, seasons, and food-plants of larva of *Prodenia commelinæ*; figure of dorsal surface of a segment of the same.

851. [WALSH, B. D., and C. V. RILEY.] Cocoons of Ichneumon flies. <Amer. Ent., November, 1869, v. 2, p. 62.

Answer to inquiry of C. Mitchell; cocoons of *Microgaster* sp. found on larva of *Protoparce celeus*.

852. [WALSH, B. D., and C. V. RILEY.] Gall on spotted touch-me-not. <Amer. Ent., November, 1869, v. 2, p. 63, fig. 42.

Answer to inquiry of A. N. Prentiss; description and figures of the gall of *Cecidomyia impatientis* found on *Impatiens fulva*.

853. [WALSH, B. D., and C. V. RILEY.] Unknown larvæ. <Amer. Ent., November, 1869, v. 2, p. 63.

Answer to inquiry of J. M. Harold; characters of unknown larva allied to *Lagoa*.

854. [WALSH, B. D., and C. V. RILEY.] Blood-sucking cone-nose. <Amer. Ent., November, 1869, v. 2, p. 63.

Answer to inquiry of D. B. Watson; occurrence of *Conorhinus sanguisugus* at Saint Louis, Mo.

855. [WALSH, B. D., and C. V. RILEY.] Eggs on a grape-cane. <Amer. Ent., November, 1869, v. 2, p. 63.

Answer to inquiry of J. Cochrane; difficulty of identifying eggs of insects.

856. [WALSH, B. D., and C. V. RILEY.] Gregarious willow-worms. <Amer. Ent., November, 1869, v. 2, p. 63.

Answer to inquiry of G. C. Brackett; characters, habits, and food-plants of the larva of *Clostera americana* [=*Ichthyura inclusa*].

857. [WALSH, B. D., and C. V. RILEY.] Caterpillars named. <Amer. Ent., November, 1869, v. 2, p. 63.

Answer to inquiries of G. W. Copley and W. D. Butler; food-habits of larvæ of *Eudamus tityrus* and *Papilio troilus*.

858. [WALSH, B. D., and C. V. RILEY.] Insects named. <Amer. Ent., November, 1869, v. 2, p. 63.

Answer to inquiry of L. G. Saffer; vernacular name of *Mutilla coccinea* [= *Sphærophthalma occidentalis*]; characters of *Stizus* [= *Sphecius*] *speciosus*.

859. [WALSH, B. D., and C. V. RILEY.] Range of the rear-horse. <Amer. Ent., November, 1869, v. 2, p. 63.

Answer to inquiry of V. T. Chambers; northern range of *Mantis* [= *Phasmomantis*] *carolina*.

860. [WALSH, B. D., and C. V. RILEY.] Royal horned-caterpillar. <Amer. Ent., November, 1869, v. 2, p. 64.

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Description of larva, pupa, and imago of *Gortyna nitela*; habits of and means against this insect.

941. R[ILEY], C. V. Borers and canker-worms. <Prairie Farmer, 9 March, 1867, [v. 35], n. s., v. 19, p. 151. S. b. No. 2, p. 61.

Critical review of E. H. C.'s "Remedy for the borer" and of J. Huggins' "Canker-worm;" indefiniteness of the word borer; borers confined to particular trees according to species; relations between *Clytus* [=*Cyllene*] *pictus* and *C.* [=*C.*] *robiniæ*; habits of and means against canker-worms. See No. 954.

942. [RILEY, C. V.] The critic criticised. <Prairie Farmer, 16 March, 1867, [v. 35], n. s., v. 19, p. 169. S.-b. No. 2, p. 58.

Reply to B. D. Walsh's "The critic criticised;" insists upon the correctness of one criticism made; acknowledges incorrectness of another. See Nos. 222, 937, 939.

943. RILEY, C. V. [*Solenobia.*] <Prairie Farmer, 16 March, 1867, [v. 35], n. s., v. 19, p. 169. S.-b. No. 2, p. 58.

Answer to inquiry of J. C. Plumb; brief description of the larva of *?Solenobia*; habits of the genus.

944. RILEY, C. V. Bark-lice. Their history, together with sundry remedies. <Prairie Farmer, 23 March, 1867, [v. 35], n. s., v. 19, p. 184. S.-b. No. 2, pp. 61–62. Extract: <Cultivator and Country Gentleman, 23 May, 1867, v. 29, p. 334. <Pract. Ent., April, 1867, v. 2, pp. 81–82.

Criticises several patent remedies for ravages of bark-lice, *Coccidæ*; ignorance of entomology amongst intelligent writers; natural history of *Mytilaspis pomicorticis* [=*pomorum*].

945. RILEY, C. V. The phlox-worm. <Prairie Farmer, 6 April, 1867, [v. 35], n. s., v. 19, p. 219, 2 figs. S.-b. No. 2, pp. 63, 64.

Describes and figures larva and imago of *Heliothis phloxiphaga*; describes pupa; seasons and habits.

946. RILEY, C. V. The potato-beetle. <Prairie Farmer, 6 April, 1867, [v. 35], n. s., v. 19, p. 219. S.-b. No. 2, p. 64.

Answer to inquiries of H. Tilden; *Doryphora decemlineata* remains permanently in regions invaded by it; hibernates as an imago under ground.

947. RILEY, C. V. Meadow-worms. <Prairie Farmer, 6 April, 1867, [v. 35], n. s., v. 19, p. 219. S.-b. No. 2, p. 64.

Answer to inquiry of B. S.; habits of *Tipula* in all stages.

948. RILEY, C. V. Clover-worms. <Prairie Farmer, 1867, [v. 35], n. s., v. 19, 20 April, pp. 260–261, 10 figs.; 27 April, p. 279. S.-b. No. 2, pp. 67, 68.

Habits and ravages of *Pyralis olinalis* [=*Asopia costalis*]; figures and detailed descriptions of larva, pupa, cocoon, and imago.

949. RILEY, C. V. The apple-leaf crumpler. <Prairie Farmer, 27 April, 1867, [v. 35], n. s., v. 19, p. 279, 4 figs. S.-b. No. 2, p. 68.

Answer to inquiry of A. H.; description of pupa, figure of larva-case and imago of *Phycita nebulo* [=*Acrobasis indiginella*]; habits and means against the same.

950. RILEY, C. V. Cocoons on the flowering ash. <Prairie Farmer, 27 April, 1867, [v. 35], n. s., v. 19, p. 279. S.-b. No. 2, p. 68.

Answer to inquiry of A. B. Pierce; descriptions of larva, cocoon, and imago of *Attacus promethea*; food-plants of larva; method of emergence from cocoon.

951. RILEY, C. V. Scarred apple-trees. Prairie Farmer, 27 April, 1867, [v. 35], n. s., v. 19, p. 279. S.-b. No. 2, p. 68.

Answer to inquiry of P. M. Williamson; descriptions of the injuries to apple-trees caused by *Tettigonia* sp., *Coccus harrisii* [=*Chionaspis furfurus*], and *Mytilaspis pomicorticis* [=*pomorum*].

952. RILEY, C. V. Aphides. <Prairie Farmer, 18 May, 1867, [v. 35,], n. s., v. 19, p. 332. S.-b. No. 2, p. 73.

Answer to inquiry of J. Taylor; color and propagation of *Aphis mali*; means against the same.

953. RILEY, C. V. Tree-cricket. Prairie Farmer, 18 May, 1867, [v. 35], n. s., v. 19, p. 332. S.-b. No. 2, p. 73.

Answer to inquiry of A. N. Prentiss; habits of *Œcanthus niveus*.

954. RILEY, C. V. Note. <Prairie Farmer, 18 May, 1867, [v. 35], n. s., v. 19, p. 332. S.-b. No. 2, p. 73.

Correction of No. 941; criticism unfounded.

955. RILEY, C. V. The strawberry-worm, *Emphytus maculatus* Norton. <Prairie Farmer, 25 May, 1867, [v. 35], n. s., v. 19, p. 348, 9 figs. S.-b. No. 2, p. 72.

Descriptions and figures of all stages, geographical distribution, seasons, habits, and oviposition of and means against *Emphytus* [=*Harpiphorus*] *maculatus*.

956. RILEY, C. V. White-pine worm: *Lophyrus abbotii*. <Prairie Farmer, 25 May, 1867, [v. 35], n. s., v. 19, p. 348, 7 figs. S.-b. No. 2. p. 72.

Description of imago of *Lophyrus abbotii*; figures larva, pupa, cocoon, ♀ imago and ♂ and ♀ antennæ; habits and seasons of larvæ.

957. [RILEY, C. V.] Stag-beetle. <Prairie Farmer, 25 May, 1867, [v. 35], n. s., v. 19, p. 348. S.-b. No. 2, p. 72.

Answer to inquiry of S. Barrier; habits of *Lucanus elaphus*.

958. [RILEY, C. V.] The Curculio. <Prairie Farmer, 1 June, 1867, [v. 35], n. s., v. 19, p. 368. S.-b. No. 2, p. 73.

Successful results from the use of machines for destroying *Conotrachelus nenuphar*; this insect hibernates in the imago state.

959. RILEY, C. V. Fifteen-spotted lady-bird. <Prairie Farmer, 8 June, 1867, [v. 35], n. s., v. 19, p. 381.

Answer to inquiry of A. B. Knowlton; food, variable coloration of imago, and usefulness of *Mysia* [*Anatis*] *15-punctata*.

960. RILEY, C. V. Cherry Aphis. <Prairie Farmer, 8 June, 1867, [v. 35], n. s., v. 19, p. 381.

Answer to inquiry of G. Lee; habits, ravages of and means against *Myzus cerasi*.

961. RILEY, C. V. Tree-cricket. <Prairie Farmer, 8 June, 1867, [v. 35], n. s., v. 19, p. 381.

Eggs of *Œcanthus niveus* deposited in raspberry canes cause the death of the wood above them.

962. RILEY, C. V. Apple-tree borer. <Prairie Farmer, 8 June, 1867, [v. 35], n. s., v. 19, p. 381.

Answer to inquiry of A. B. Campbell; commends D. B. Wier's remedy against the apple-tree borer; *Saperda bivittata* [= *candida*] goes through its transformations in two years, though commonly believed to require three years.

963. RILEY, C. V. Insects affecting apple-tree roots. <Prairie Farmer, 15 June, 1867, [v. 35], n. s., v. 19, p. 397. S.-b. No. 2, p. 100.

Letter from O. B. Galusha, with answer; descriptions of young and mature wingless individuals of the root-inhabiting form, *Pemphigus pyri*, of *Schizoneura lanigera*; habits, seasons, and reproduction of this form; its gall-making and means against it; description of larva of *Cecidomyia* species found with the lice; and of larva and imago of *Mycetophila persica* [n. sp.?]; seasons of the latter; larva of *Saperda calcarata* bores in roots of apple; larva of *Helops micans* feeds on decaying apples; *Julus* [*Spirobolus*] *marginatus* infested with *Gamasus juloides*.

964. RILEY, C. V. A chapter on cut-worms. <Prairie Farmer, 22 June, 1867, [v. 35], n. s., v. 19, pp. 413–414, 7 figs. S.-b. No. 2, pp. 79–80.

Extract from J. Townley's "Do cut-worms destroy tree buds?". Buds of fruit trees destroyed by the larvæ of *Agrotididæ*; other ravages and means against the same; descriptions of the larvæ of *Agrotis subgothica* [= *A. herilis* and *A. tricosa*], *A. telifera* [= *A. ypsilon*], and *Celæna* [= *Hadena*] *renigera*; description of *A. cochranis* n. sp. [= *A. messoria*]; figures larva and imago of *A. cochranis*, *A. telifera*, and *Celæna renigera*; and imago of *A. subgothica*; habits, seasons, and vernacular names of *Agrotididæ*.

965. [RILEY, C. V.] Strawberry-worm. <Prairie Farmer, 22 June, 1867, [v. 35], n. s., v. 19, p. 414. S.-b. No. 2, p. 80.

Answer to inquiry of A. R. Whitney; geographical distribution of *Emphytus* [= *Harpiphorus*] *maculatus*.

966. RILEY, C. V. Insects stripping the bur-oak. <Prairie Farmer, 13 July, 1867, [v. 36], n. s., v. 20, p. 21. S.-b. No. 2, p. 81.

Answer to inquiry of A. B. Price; habits of *Lachnosterna pilosicollis* [= *tristis*.]

967. RILEY, C. V. Borers. <Prairie Farmer, 13 July, 1867, [v. 36], n. s., v. 20, p. 21. S.-b. No. 2, p. 81.

Answer to inquiry of J. Wentworth; means against *Clytus* [= *Cyllene*] *robiniæ* and *Xyleutes* [= *Cossus*] *robiniæ*.

968. RILEY, C. V. Potato-beetle. <Prairie Farmer, 13 July, 1867, [v. 36], n. s., v. 20, p. 21. S.-b. No. 2, pp. 81–82.

Answer to inquiries of J. L. W. and G. L. Merriwether; *Doryphora* 10-*lineata* three-brooded; its occurrence at Shipman, Ill.

969. [RILEY, C. V.] Smith's patent Curculio trap. <Prairie Farmer, 13 July, 1867, [v. 36], n. s., v. 20, p. 21. S.-b. No. 2, p. 82.

Communication from N. C. Coffman, with reply; condemns J. Smith's Curculio trap.

970. RILEY, C. V. [*Aphis ribis.*] <Prairie Farmer, 3 August, 1867, [v. 36], n. s., v. 20, p. 69. S.-b. No. 2, p. 81.

Answer to inquiry of C. J. Eckhart; means against *Myzus ribis*.

971. RILEY, C. V. *Mantis carolina.* <Prairie Farmer, 3 August, 1867, [v. 36], n. s., v. 20, p. 69. S.-b. No. 2, p. 81.

Answer to communication of J. H. Graves; eggs of *Mantis* [= *Phasmomantis*] *carolina* found in Ogle County, Ill.

972. RILEY, C. V. Lappet caterpillars on the apple. <Prairie Farmer, 3 August, 1867, [v. 36], n. s., v. 20, p. 69. S.-b. No. 2, p. 81.

Answer to communication of Perkins and Congdon; description of the larva, pupa, cocoon, and imago of *Gastropacha* [= *Tolype*] *velleda*.

973. RILEY, C. V. Apple-bark lice on pears. <Prairie Farmer, 3 August, 1867, [v. 36], n. s., v. 20, p. 69. S.-b. No. 2, p. 81.

Mytilaspis pomicorticis [= *pomorum*] on the fruit of pear-trees; said to occur on currants, plum, and black oak.

974. RILEY, C. V. Currant-bush borer. <Prairie Farmer, 3 August, 1867, [v. 36], n. s., v. 20, p. 69. S.-b. No. 2, p. 81.

Answer to inquiry of H. B. Kinne; habits, description, and means against *Ægeria tipuliformis*.

975. RILEY, C. V. Apple-leaf crumpler. <Prairie Farmer, 3 August, 1867, [v. 36], n. s., v. 20, p. 69. S.-b. No. 2, p. 81.

Answer to inquiry of H. C. Clock; habits and means against *Phycita nebulo* [= *Acrobasis indiginella*].

976. RILEY, C. V. Tomato-stalk borer. <Prairie Farmer, 3 August, 1867, [v. 36], n. s., v. 20, p. 69. S.-b. No. 2, p. 81.

Answer to inquiry of O. G. Nevins; food-plants of *Gortyna nitela*.

977. RILEY, C. V. A few errors corrected. <Wisc. Farmer, 17 August, 1867. S.-b. No. 2, p. 83.

Habits of *Doryphora* 10-*lineata* and of *Carpocapsa pomonella*.

978. RILEY, C. V. Curculio. <Prairie Farmer, 7 September, 1867, [v. 36], n. s., v. 20, p. 148. S.-b. No. 2, p. 82.

Answer to inquiry of J. Shearer; means against *Conotrachelus nenuphar*.

979. RILEY, C. V. Hop-vine caterpillars. <Prairie Farmer, 7 September, 1867, [v. 36], n. s., v. 20, p. 148. S.-b. No. 2, p. 82.

Communication from J. H. Graves, with answer; *Mantis* [= *Phasmomantis*] *carolina* breeds as far north as Ogle County, Ill. Description of larva and imago of *Hypena humuli* [= *scabra*]; means against it.

980. RILEY, C. V. Wheat-worms. <Prairie Farmer, 7 September, 1867, [v. 36], n. s., v. 20, p. 148. S.-b. No. 2, p. 82.

Communication from C. Campbell, with answer; description of larva and imago and habits of *Pyralis* [= *Asopia*] *farinalis*; ravages of *Tenebrio molitor*; means against both species.

981. RILEY, C. V. [Root-borer.] <Prairie Farmer, 7 September, 1867, [v. 36], n. s., v. 20, p. 148. S.-b. No. 2, p. 82.

Communication from S. T. Kelsey, with answer; ravages of an unknown cerambycid larva which destroys the roots of various plants.

982. RILEY, C. V. Bark-lice on the pear. <Prairie Farmer, 7 September, 1867, [v. 36], n. s., v. 20, p. 148. S.-b. No. 2, p. 82.

Letter from T. D. Plumb, with answer; *Mytilaspis pomicorticis* [= *pomorum*] lives on fruit of pear and crab-apple; the scale a secretion; extent of injuries caused by this insect.

983. RILEY, C. V. A nuisance made useful. <Prairie Farmer, 7 September, 1867, [v. 36], n. s., v. 20, p. 148. S.-b. No. 2, p. 82.

Means against *Doryphora 10-lineata* discredited.

984. RILEY, C. V. Strawberry leaf-roller. <Prairie Farmer, 5 October, 1867, [v. 36], n. s., v. 20, p. 212. S.-b. No. 2, p. 100.

Answer to inquiry of N. R. Strong; *Anchylopera* [= *Phoxopteris*] *fragariæ* injures strawberry leaves; larvæ of *Selandria* [= *Monostegia*] *rosæ* also eat leaves of the strawberry.

985. RILEY, C. V. False caterpillars on the pine. <Prairie Farmer, 5 October, 1867, [v. 36], n. s., v. 20, p. 212. S.-b. No. 2, p. 101.

Answer to inquiry of A. S. Fuller; habits and description of *Lophyrus lecontei*.

986. RILEY, C. V. An unknown worm. <Prairie Farmer, 5 October, 1867, [v. 36], n. s., v. 20, p. 212. S.-b. No. 2, p. 101.

Extract from Beaver Dam Citizen, with comments; habits and description of *Eristalis* sp.

987. [RILEY, C. V.] Bark-louse. <Prairie Farmer, 19 October, 1867, [v. 36], n. s., v. 20, p. —. S.-b. No. 2, p. 75.

Benzine and soap as a means against bark-lice.

988. [RILEY, C. V.] Editorial excursion to the Rocky Mountains. <Prairie Farmer, 7 December, 1867, [v. 36], n. s., v. 20, pp. 353–354. S.-b. No. 2, pp. 112–113.

List of plants, insects, and mammals observed.

989. RILEY, C. V. Bark-lice. <Prairie Farmer, 21 December, 1867, [v. 36], n. s., v. 20, p. 389. S.-b. No. 2, p. 112.

Answer to inquiries of G. Backster and J. C. Cobbey; means against *Mytilaspis pomicorticis* [= *pomorum*].

990. RILEY, C. V. Root Aphis. <Prairie Farmer, 21 December, 1867, [v. 36], n. s., v. 20, p. 389. S.-b. No. 2, p. 112.

Answer to inquiry of J. M. Jordan; means against the root and stem forms of *Schizoneura lanigera*.

991. [RILEY, C. V.] The Colorado potato-beetle. <Prairie Farmer, 21 December, 1867, [v. 36], n. s., v. 20, p. 389. S.-b. No. 2, p. 112.

Communications from C. W. Murtfeldt asserting the possession of poisonous qualities by the larvæ of *Doryphora 10-lineata*.

992. RILEY, C. V. Cut-worm. Fall and spring plowing. <Moore's Rural New Yorker, ———, 1867. S.-b. No. 2, p. 94.

Criticism of article by Agricola.

993. RILEY, C. V. Entomology. <Prairie Farmer Annual [No. 1 for 1868], 1867, pp. 53–59, 6 figs. S.-b. No. 2, pp. 125–126; No. 14, pp. 216–219.

Descriptions and figures of larva, pupa, and imago of *Coptocycla* [=*Cassida*] *bivittata*; habits, seasons, and means against it; list of *Cassididæ* injurious to sweet-potato. Descriptions of larva, nidus, and imago of *Desmia maculalis*, figures pupa; habits and seasons of and means against it. Figures *Colaspis flavida*; describes its supposed habits. Food-plants of *Heliothis armigera*. Figures larva and imago of *Gortyna nitela*; its food-plants, seasons, and hibernation. Figures larva and imago of *Heliothis phlogophagus*; synonymy, geographical distribution, and means against it; remarks on the balance of nature. Figures larva, pupa, cocoon, and imago of *Asopia costalis*; its synonymy and ravages.

994. RILEY, C. V. Bark-lice. <Prairie Farmer, 15 February, 1868, [v. 37], n. s., v. 21, p. 100. S.-b. No. 2, p. 118.

Answer to inquiry of J. Hawkins; natural limitation and parasites of *Mytilaspis pomicorticis* [=*pomorum*]; it attacks healthy and unhealthy trees; means against it; experience with washes.

995. RILEY, C. V. Potato-beetle. <Prairie Farmer, 22 February, 1868, [v. 37], n. s., v. 21, p. 117. S.-b. No. 2, p. 119; No. 3, p. 58.

Answer to inquiry of F. T. Moore; invention of a machine for killing *Doryphora 10-lineata*; hand-picking and heavy mulching the most available remedies.

996. RILEY, C. V. Apple-tree plant-lice. <Prairie Farmer, 22 February, 1868, [v. 37], n. s., v. 21, p. 117. S.-b. No. 2, p. 119; No. 3, p. 58.

Letter from L. M., with answer; habits of and means against *Aphis mali*.

997. RILEY, C. V. Apple-root blight. <Prairie Farmer, 22 February, 1868, [v. 37], n. s., v. 21, p. 117. S.-b. No. 2, p. 119; No. 3, p. 58.

Answer to inquiry of C. S. J.; *Schizoneura lanigera* not the cause of "rotten root."

998. RILEY, C. V. Apple leaf-crumpler. <Prairie Farmer, 22 February, 1868, [v. 37], n. s., v. 21, p. 117. S.-p. No. 2, p. 119; No. 3, p. 58.

Answer to inquiry of J. M. Pearson; means against *Phycita nebulo* [=*Acrobasis indiginella*].

999. RILEY, C. V. Tree-cricket. <Prairie Farmer, 14 March, 1868, [v. 37], n. s., v. 21, p. 164. S.-b. No. 2, p. 120; No. 3, p. 58.

Letter from J. J. Huggins, with answer; place of oviposition of *Œcanthus niveus*; list of plants in which this species oviposits.

1000. RILEY, C. V. Egg-masses and cocoons on apple-trees. <Prairie Farmer, 14 March, 1868, [v. 37], n. s., v. 21, p. 164. S.-b. No. 2, p. 120; No. 3, p. 58.

Answer to inquiry of a correspondent; description of egg-masses and of larva of *Orgyia leucostigma*; beneficial influence and means of encouraging parasites.

1001. RILEY, C. V. Hop insects; Hop Aphis. <Prairie Farmer, 21 March, 1868, [v. 37], n. s., v. 21, p. 184. S.-b. No. 3, p. 58.

Brief account of and means against *Hypena humuli* [=*scabra*] and *Phorodon humuli*.

1002. RILEY, C. V. Supposed eggs of the preying Mantis. <Prairie Farmer, 28 March, 1868, [v. 37], n. s., v. 21, p. 201. S.-b. No. 2, p. 121; No. 3, p. 59.

Answer to inquiry of J. H. Graves; cocoons of *Rhogas* sp. attached in a mass to twigs of an apple-tree.

1003. RILEY, C. V. Oak-tree borer. <Prairie Farmer, 28 March, 1868, [v. 37], n. s., v. 21, p. 201. S.-b. No. 2, p. 121; No. 3, p. 59.

Answer to inquiries of E. G. Mygatt; habits and food-plants of *Xyleutes* [=*Cossus*] *robiniæ*; means against it.

1004. RILEY, C. V. Maple-bark lice. <Prairie Farmer, 28 March, 1868, [v. 37], n. s., v. 21, p. 201. S.-b. No. 2, p. 121; No. 3, p. 59.

Lecanium sp. found on twigs of sugar-maple.

1005. RILEY, C. V. Eggs of the katydid. <Prairie Farmer, 28 March, 1868, [v. 37], n. s., v. 21, p. 201. S.-b. No. 2, p. 121; No. 3, p. 59.

Answer to inquiry of W. Colwell; habits and food-plants of *Platyphyllum* [=*Cyrtophyllus*] *concavus*.

1006. RILEY, C. V. Eggs of tree-cricket in raspberry canes. <Prairie Farmer, 28 March, 1868, [v. 37], n. s., v. 21, p. 201. S.-b. No. 2, p. 121; No. 3, p. 59.

Letter from E. T. Nelson, with answer; oviposition of *Œcanthus niveus* in raspberry canes; means against this insect.

1007. RILEY, C. V. Bark-lice. <Prairie Farmer, 28 March, 1868, [v. 37], n. s., v. 21, p. 201. S.-b. No. 2, p. 121; No. 3, p. 59.

Answer to inquiry of C. D. Robinson; means against *Mytilaspis pomicorticis* [=*pomorum*].

1008. RILEY, C. V. Bark-lice again; the native species. <Prairie Farmer, 28 March, 1868, [v. 37], n. s., v. 21, p. 201. S.-b. No. 2, p. 121; No. 3, p. 59.

Letter from N. Coleman, with answer; comparative characters of *Mytilaspis pomicorticis* [=*pomorum*] and *Diaspis harrisii* [=*Chionaspis furfurus*]; food-plants of the latter.

1009. RILEY, C. V. Dahlia-stalk borer. <Prairie Farmer, 28 March, 1868, [v. 37], n. s., v. 21, p. 201. S.-b. No. 2, p. 121; No. 3, p. 59.

Answer to inquiry of S. M. Wierman; means against *Gortyna nitela*.

1010. RILEY, C. V. Apple-worm. <Prairie Farmer, 28 March, 1868, [v. 37], n. s., v. 21, p. 201. S.-b. No. 2, p. 121; No. 3, p. 59.

Answer to communication of S. J. C.; *Carpocapsa pomonella* hibernates as a larva within the cocoon.

1011. RILEY, C. V. False caterpillars on the Scotch and Austrian pines. <Prairie Farmer, 2 May, 1868, [v. 37], n. s., 21, p. 285, fig.

Description and figures of larva, cocoon and imago, and of male antenna of *Lophyrus lecontei*; food-plants and habits of larva; value of technical science.

1012. RILEY, C. V. Prevention of bark-lice. <Prairie Farmer, 9 May, 1868, [v. 37], n. s., v. 21, p. 301. S.-b. No. 3, p. 60.

Means against *Mytilaspis pomicorticis* [=*pomorum*] and *Phycita nebulo* [=*Acrobasis indiginella*]; figure of the latter.

1013. RILEY, C. V. Beetles in stomach of meadow-lark. <Prairie Farmer, 9 May, 1868, [v. 37], n. s., v. 21, p. 301. S.-b. No. 3, p. 60.

Fragments of *Nottiglossa* [=*Oncometopia*] *undata* and of *Platynus excavatus* or *P. æruginosus* found in the stomach of *Sturnella magna*.

1014. RILEY, C. V. Beetle on sugar-maple. <Prairie Farmer, 9 May, 1868, [v. 37], n. s., v. 21, p. 301. S.-b. No. 3, p. 60.

Eburia quadrigeminata found under bark of a felled sugar-maple, also on honey-locust.

1015. RILEY, C. V. White worms in wells. <Prairie Farmer, 9 May, 1868, [v. 37], n. s., v. 21, p. 301. S.-b. No. 3, p. 60.

Fish or frogs placed in wells will free them from worms.

1016. RILEY, C. V. Tanzy for borers. <Prairie Farmer, 9 May, 1868, [v. 37], n. s., v. 21, p. 301. S.-b. No. 3, p. 60.

Means against borers in apple- and peach-trees.

1017. RILEY, C. V. Peach-borer. <Prairie Farmer, 9 May, 1868, [v. 37], n. s., v. 21, p. 301. S.-b. No. 3, p. 60.

Refers to articles on means against *Ægeria* [=*Sannina*] *exitiosa*.

1018. RILEY, C. V. Black grape-vine caterpillars. <Prairie Farmer, 9 May, 1868, [v. 37], n. s., v. 21, p. 301. S.-b. No. 3, p. 60.

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1060. RILEY, C. V. Eggs of the Mantis or rear-horse. <Moore's Rural New Yorker, 10 April, 1869, v. 20, p. 234, 2 figs. S.-b. No. 3, p. 52.

Answer to inquiry of T. C. Bartle; description of *Mantis* [=*Phasmomantis*] *carolina*; its food, habits, oviposition, and parasites; figures its egg-masses and those of *Phylloptera* [*Amblycorypha*] *oblongifolia*.

1061. RILEY, C. V. Native bark-lice on apple-trees. <Prairie Farmer, 17 April, 1869, [v. 39], n. s., v. 23, p. 122, 1 fig. S.-b. No. 3, p. 57.

Answer to inquiry of T. B. Gardner; life history of and means against *Diaspis harrisii* [=*Chionaspis furfurus*]; figure of the same.

1062. RILEY, C. V. Curculio. <Prairie Farmer, 17 April, 1867, [v. 39], n. s., v. 23, p. 122. S.-b. No. 3, p. 57.

Answer to inquiry of James Weed; habits of and means against *Conotrachelus nenuphar*.

1063. RILEY, C. V. Cherry-tree borers. <Prairie Farmer, 17 April, 1869, [v. 39], n. s., v. 23, p. 122. S.-b. No. 3, p. 57.

Answer to inquiry of Onargo Horticultural Society; larvæ of *Buprestis* [=*Dircera*] *divaricata* and of *Trochilium* sp., injurious to cherry-trees; soft-maple attacked by *T.* [=*Ægeria*] *acerni*; means against these insects.

1064. RILEY, C. V. White-grub fungus. <Prairie Farmer, 15 May, 1869, [v. 39], n. s., v. 23, p. 154. S.-b. No. 3, p. 76.

Letter from D. W. Tindall, with answer; ravages of *Lachnosterna quercina* [=*fusca*] in Clinton County, Mo., in 1868; *Torrubia* growing on the larvæ in 1869.

1065. RILEY, C. V. The canker-worm, *Anisopteryx vernata* Peck. <Moore's Rural New Yorker, 29 May, 1869, v. 20, p. 345, figs. S.-b. No. 3, p. 73.

Description, figures, and natural history of canker-worms; the two species are confounded.

1066. RILEY, C. V. The seed-corn maggot, *Anthomyia zeas*, Riley. Destroying the seed after it is planted. <Moore's Rural New Yorker, June, 1869, fig. S.-b. No. 3, p. 81. Advance print, with changes: <1st Ann. Rept. State Ent. Mo., March, 1869, pp. 154–156, figs. 86–87.

See No. 1059 for synopsis of contents.

1067. RILEY, C. V. Cherry-tree plant-lice. <Moore's Rural New Yorker, 10 July, 1869, v. 20, p. 443. S.-b. No. 3, p. 83.

Answer to inquiry of G. J. Magee; means against *Aphis* [=*Myzus*] *cerasi*.

1068. RILEY, C. V. Gooseberry span-worms. <Moore's Rural New Yorker, 10 July, 1869, v. 20, p. 443. S.-b. No. 3, p. 83.

Letter from A. Yancey, with answer; occurrence of *Eufitchia ribearia* in Iowa; habits and means against it; habits of and influence of weather on *Blissus leucopterus*; scarcity of *Doryphora 10-lineata* in Iowa.

1069. RILEY, C. V. Apple-leaf crumpler mistaken for Curculio. <Prairie Farmer, 10 July, 1869, [v. 40], n. s., v. 24, p. 218, fig. S.-b. No. 3, p. 80.

Letter from B. T. Taylor; improper use of the word Curculio; figures larva-case and imago of *Phycita nebulo* [=*Acrobasis indiginella*]; means against it; outline figure of *Conotrachelus nenuphar*.

1070. RILEY, C. V. Peach-tree borer. <Prairie Farmer, 10 July, 1869, [v. 40], n. s., v. 24, p. 218. S.-b. No. 3, p. 80.

Answer to inquiry of C. Allen; habits of and means against *Ægeria* [=*Sannina*] *exitiosa*.

1071. RILEY, C. V. To protect plums from Curculio. <Prairie Farmer, 10 July, 1869, [v. 40], n. s., v. 24, p. 218. S.-b. No. 3, p. 80.

Answer to inquiry of H. H. S.; recommends the collection of the imago of *Conotrachelus nenuphar* by jarring.

1072. RILEY, C. V. White-grub; information wanted. <Prairie Farmer, 28 August, 1869, [v. 40], n. s., v. 24, p. 274, 4 figs. S.-b. No. 3, p. 95.

Letter from A. T. V., with answer; habits of and means against *Lachnosterna quercina* [=*fusca*]; figures of larva and imago.

1073. RILEY, C. V. Unknown corn pest. <Prairie Farmer, 28 August, 1869, [v. 40], n. s., v. 24, p. 274. S.-b. No. 3, p. 95.

Letter from E. B. Hickey, with answer; ravages of cut-worms and of an unknown pest on maize; brief description and habits of the latter.

1074. RILEY, C. V. Larva of the grape-vine flea-beetle. <Moore's Rural New Yorker, 28 August, 1869, v. 20, p. 555. S.-b. No. 3, pp. 100, 103.

Answer to inquiry of D. D. Vosburgh; habits, ravages, and means against *Graptodera* [= *Haltica*] *chalybea*.

1075. RILEY, C. V. Rose bug. <Moore's Rural New Yorker, 28 August, 1869, v. 20, p. 555. S.-b. No. 3, pp. 100, 103.

Answer to inquiry of a subscriber; description of imago, transformations of, and means against *Macrodactylus subspinosus*.

1076. RILEY, C. V. Large green caterpillar on the apple. <Moore's Rural New Yorker, 28 August, 1869, v. 20, p. 555. S.-b. No. 3, p. 100.

Answer to inquiry of S. E. A. Palmer; descriptions of larva and imago of *Attacus cecropia*; its habits and seasons.

1077. RILEY, C. V. Conical galls on leaves of wild grape-vine. <Moore's Rural New Yorker, 28 August, 1869, v. 20, p. 555. S.-b. No. 3, p. 100.

Answer to inquiry of D. McClaine; description of galls of *Cecidomyia vitis-viticola*; characters of the larvæ of *Cecidomyia*.

1078. RILEY, C. V. A strange bug. <Moore's Rural New Yorker, 28 August, 1869, v. 20, p. 555. S.-b. No. 3, p. 100; No. 4, p. 3.

The insects described in North Carolina's "A strange bug," were probably *Psocus venosus*; habits of the genus *Psocus*.

1079. RILEY, C. V. Currant-worms and black-currants. <Moore's Rural New Yorker, 28 August, 1869, v. 20, p. 555. S.-b. No. 3, p. 100; No. 4, p. 3.

Critical review of Addi on currant-worms; in North America three species of larvæ feed on the leaves of currants, and two species of borers live within the stem.

1080. RILEY, C. V. Curculio. <Moore's Rural New Yorker, 28 August, 1869, v. 20, p. 555. S.-b. No. 3, p. 100; No. 4, p. 3.

Commendation of an editorial criticism of Northwest's article on the Curculio.

1081. [RILEY, C. V.] Insects injurious to the grape-vine. [No. 1.] <Amer. Ent., August, 1869, v. 1, pp. 231–234, figs. 169–173. Reprint, with slight changes: <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 87–91, figs. 60–63..

Treats of *Prionus laticollis* and *P. imbricornis*. See No. 1127 for synopsis of contents.

1082. [RILEY, C. V.] Insects infesting the sweet-potato. <Amer. Ent., August, 1869, v. 1, pp. 234–238, figs. 174–181. Reprint, with slight changes: <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 56–64, figs. 26–38.

Treats of tortoise-beetles, *Cassididæ*. See No. 1127 for synopsis of contents.

1083. RILEY, C. V. The borers. <Western Rural, September, 1869, S.-b. No. 4, p. 2.

Means against *Ægeria cucurbitæ* [= *Melittia ceto*].

1084. RILEY, C. V. Supposed bark-lice eggs in Missouri. <Prairie Farmer, 4 September, 1869, [v. 40], n. s., v. 24, p. 282. S.-b. No. 3, p. 95.

Letter from J. Reed, with answer; eggs of a moth mistaken for those of *Mytilaspis pomicorticis* [=*pomorum*]; the latter unknown in Missouri.

1085. RILEY, C. V. New York weevil on apple-trees. <Prairie Farmer, 4 September, 1869, [v. 40], n. s., v. 24, p. 282, 3 figs. S.-b. No. 3, p. 95.

Letter from R. M. Guy, with answer; figures of larva and imago, description of imago, geographical distribution, methods of oviposition, food-plants, and means against *Ithycerus noveboracensis*.

1086. [RILEY, C. V.] Insects injurious to the grape-vine. No. 2. <Amer. Ent., September–October, 1869, v. 2, pp. 22–24, figs. 12–16. Reprint, with slight changes. <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 71–73, figs. 44–48.

Treats of *Chærocampa pampinatrix* [=*Ampelophaga myron*]; see No. 1127 for synopsis of contents.

1087. RILEY, C. V. Larva of the imperial moth. <Prairie Farmer, 9 October, 1869, [v. 40], n. s., v. 24, p. 322. S.-b. No. 3, p. 92.

Letter of C. H. Thayer, with answer; description of larva, pupa, and imago of *Ceratocampa* [=*Eacles*] *imperialis*; food-plants of the same and of *C.* [=*Citheronia*] *regalis*.

1088. RILEY, C. V. Apple snout-beetle or four-humped Curculio. <Prairie Farmer, 9 October, 1869, [v. 40], n. s., v. 24, p. 322. S.-b. No. 3, p. 92.

Letter from R. W. Gandy, with answer; habits and description of *Anthonomus quadrigibbus*; recommends jarring.

1089. RILEY, C. V. That venomous potato-worm! <Moore's Rural New Yorker, 20 November, 1869, v. 20, p. —. S.-b. No. 3, pp. 107; 112.

Critical review of several recent articles upon tomato-worms; structure and harmlessness of larvæ of *Sphingidæ*; geographical distribution of *Sphinx* [=*Protoparce*] *carolina* and *S. quinquemaculata* [=*P. celeus*].

1090. [RILEY, C. V.] The bag-worm, *alias* basket-worm, *alias* drop-worm, *Thyridopteryx ephemeræformis*, Haw. <Amer. Ent., November, 1869, v. 2, pp. 35–38, fig. 24.

Geographical distribution, food-plants, seasons, transformations, parasites, copulation, and oviposition of and means against *Thyridopteryx ephemeræformis*; figures and descriptions of larva, larva-cases, pupa, and imago; description of eggs; abodes constructed by insects.

1091. [RILEY, C. V.] Insects injurious to the grape-vine. No. 3. <Amer. Ent., November, 1869, v. 2, pp. 54–55, figs. 33–35. Reprint, with slight changes. <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 74–76, figs. 49–51.

Treats of *Philampelus achemon*; see No. 1127 for synopsis of contents.

1092. RILEY, C. V. The saddle-back caterpillar. <Moore's Rural New Yorker, 4 December, 1869, v. 20, p. —, fig. S.-b. No. 3, p. 103.

Letters from A. W. Baker and G. T. Cost, with answer; figures and characterization of the larva of *Empretia stimulea*; food-plants, urticating properties, and transformations; description of the imago.

1093. RILEY, C. V. The seventeen-year Cicada. <Prairie Farmer, ——— 1869. S.-b. No. 3, p. 55.

Answer to communication of W. J. B., concerning *Cicada* [= *Tibicen*] *septendecim*.

1094. RILEY, C. V. Death of a hen. <Rural New Yorker, ——— 1869, fig. S.-b. No. 3, p. 75.

Occurrence of *Goniocotes hologaster* in great numbers on a hen; means against the same; figure of it.

1095. RILEY, C. V. Cut-worm eggs. <Prairie Farmer, ——— 1869. S.-b. No. 3, p. 81.

Habits and place of oviposition of *Agrotis inermis* [= *saucia*]; description of its eggs and larvæ.

1096. RILEY, C. V. Potato bugs. <Prairie Farmer, ——— 1869. S.-b. No. 3, p. 81.

Means against *Doryphora* 10-*lineata*.

1097. RILEY, C. V. That glow-worm. <Cultivator and Country Gentleman, 6 January, 1870, v. 35, p. 5, fig. S.-b. No. 4, p. 23. Reprint: <Amer. Ent., October, 1880, v. 3, n. s., v. 1, p. 254, fig.

Figures larva and imago of *Photuris pennsylvanica*; *Photinus pyralis* also luminous in larval and adult stages; comparison with *Lampyris noctiluca*.

1098. [RILEY, C. V.] In memoriam. <Amer. Ent., December, 1869–January, 1870, v. 2, pp. 65–68.

Biographical and obituary notice of B. D. Walsh.

1099. [RILEY, C. V.] The harlequin cabbage-bug, *Strachia histrionica*, Hahn. <Amer. Ent., December, 1869–January, 1870, v. 2, pp. 79–80, fig. 56.

Enumeration of the enemies of the cabbage in the United States; methods of their injury; importation and spread of some species; figures of the imago; description of eggs, habits, geographical distribution, seasons, and odors of *Strachia* [= *Murgantia*] *histrionica*; extract from G. Lincecum's "Texan cabbage-bug."

1100. [RILEY, C. V.] An entomologist caught napping. <Amer. Ent., December, 1869–January, 1870, v. 2, p. 84.

Criticism of the view that trees, grasses, or any other particular forms of vegetation are the natural coverings of the earth; this criticism applied especially to John Curtis.

1104. [RILEY, C. V.] Poisonous qualities of the Colorado potato-bug. <Amer. Ent., December, 1869–January, 1870, v. 2, pp. 85–86.

Extract from "Winona Republican," with remarks upon the poisonous nature of the blood of *Doryphora* 10-*lineata*.

1102. [RILEY, C. V.] Insects injurious to the grape-vine. No. 4. <Amer. Ent, December, 1869–January, 1870, v. 2, pp. 89–90, figs. 58–59. Reprint, with slight changes: <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 76–78, figs. 52–53.

Treats of *Philampelus satellitia* [= *pandorus*]; see No. 1127 for synopsis of contents.

1103. [RILEY, C. V.] Toads *vs.* bugs. <Amer. Ent., December, 1869–January, 1870, v. 2, p. 91.

Translation of extracts from Fogt's "Noxious and beneficial animals;" existence of a commerce in toads between France and England; usefulness, tameness, and gratitude of toads.

1104. [RILEY, C. V.] The tomato-worm again. <Amer. Ent., December, 1869–January, 1870, v. 2, pp. 91–92.

Reprint, with comments, of article entitled "The tomato-worm," from Syracuse Standard; absurd nature of newspaper accounts of insects.

1105. [RILEY, C. V.] Mr. Walsh's successor. <Amer. Ent., December, 1869–January, 1870, v. 2, pp. 92–93.

Condition in which B. D. Walsh left the office of State Entomologist of Illinois at his death; plans of his intended second report; provisions for the preparation of the same and the filling of the office.

1106. [RILEY, C. V.] To our subscribers. <Amer. Ent., December, 1860–January, 1870, v. 2, p. 93.

Proposed change in the character of the American Entomologist.

1107. [RILEY, C. V.] The Walsh entomological collection. <Amer. Ent., December, 1869–January, 1870, v. 2, pp. 93–94.

Statement of the conditions under which the Walsh collection of insects is to be sold; expression of preferences in regard to its disposition; extent and method of preservation of the collection.

1108. [RILEY, C. V.] A State entomologist for Minnesota. <Amer. Ent., December, 1869–January, 1870, v. 2, p. 94.

Commendation of resolutions passed by the Minnesota State Horticultural Society recommending the appointment of a state entomologist; promotion of entomological studies by appropriations from the several States.

1109. RILEY, C. V. [Field for the entomologist in the South.] <Amer. Ent., v. 2, December, 1869–January, 1870, p. 94; February, 1870, p. 121.

Extent and novelty of entomological work in the southern United States; J. P. Stelle at work in this field.

1110. [RILEY, C. V.] On our table. <Amer. Ent., December, 1869–January, 1870, v. 2, pp. 95, 96.

Notices of J. T. C. Ratzeburg's works on "Forest trees" and "Weeds of Germany and Switzerland."

1111. [RILEY, C. V.] Information wanted. <Amer. Ent., December, 1869–January, 1870, v. 2, p. 96.

Answer to inquiry of M. A. Kendall; habits of *Xylocopa carolina* [= *virginica*], *Rhyssa* [= *Thalessa*] *lunator*, and *Spectrum* [= *Diapheromera*] *femorata*.

1112. [RILEY, C. V.] The Cecropia moth, *Attacus cecropia*, Linn. <Amer. Ent., February, 1870, v. 2, pp. 97–102, fig. 59 [bis]–67.

Descriptions and figures of larva, cocoon and imago of *Attacus cecropia*; figure of pupa; descriptions of egg and of young larva at its several stages; nomenclature, food-plants, and parasites; its value as a silk-worm; figures and descriptions of *Ophion macrurum*, *Exorista cecropiæ* n. sp., and *Chalcis* [= *Spilochalcis*] *mariæ* n. sp.; figure of larva of *Ophion macrurum* and of cocoons of *Cryptus nuncius*; habits of these parasites; *Exorista cecropiæ* considered a variety of *E. militaris* [= *Nemorœa leucaniæ*].

1113. RILEY, C. V. Report of the committee on entomology. Read . . . before the Missouri State Horticultural Society. <Amer. Ent., February, 1870, v. 2, pp. 106–109. Reprint: <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 5–8, 13–15.

See No. 1127 for synopsis of contents.

1114. [RILEY, C. V.] Silk-worm eggs. <Amer. Ent., February, 1870, v. 2, p. 109.

Seventy-eight packages of silk-worm eggs, valued at $800 per package and weighing two tons, shipped from Yokohama to France via California and the Pacific Railroad.

1115. RILEY, C. V. Imported insects and native American insects. <Amer. Ent., February, 1870, v. 2, pp. 110–112, fig. 72–75. Reprint: <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 8–12.

See No. 1127 for synopsis of contents.

1116. [RILEY, C. V.] The trumpet grape-gall, *Vitis viticola* O. S. <Amer. Ent., February, 1870, v. 2, pp. 113–114, fig. 76.

Figure of the gall of *Cecidomyia vitis-viticola*. *C. v.-lituus* a synonym; occurrence of similar gall in England on *Tilia* probably caused by mites.

1117. [RILEY, C. V.] The goat-weed butterfly, *Paphia glycerium* Doubleday. <Amer. Ent., February, 1870, v. 2, pp. 121–123, figs. 81–83. Reprint, with slight changes. <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 124–128, figs. 94–96.

See No. 1127 for synopsis of contents.

1118. [RILEY, C. V.] Insects injurious to the grape-vine. No. 5. <Amer. Ent., February, 1870, v. 2, pp. 123–124, fig. 84. Reprint, with slight changes. <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 78–79, fig. 54.

Treats of *Thyreus abbotii*; see No. 1127 for synopsis of contents.

1119. [RILEY, C. V.] Scorpion in Kansas. <Amer. Ent., February, 1870, v. 2, p. 126.

Answer to inquiry of K. Kelsey; occurrence of *Buthus carolinianus* in Texas, Missouri, and Kansas.

1120. [RILEY, C. V.] The grain Bruchus of Europe just imported. <Amer. Ent., February, 1870, v. 2, pp. 126–127, fig. 85.

Answer to inquiry of A. S. Fuller; notice of the recent importation into New York of the European *Bruchus granarius*; danger of and remedy for such importation; habits and ravages of and means against the beetle in Europe as described in J. Curtis's, "Farm Insects;" figure of the imago and of infested beans; figures of larva, pupa, and imago of *B. pisi* and of infested pea.

1121. [RILEY, C. V.] Locust borer. <Amer. Ent., February, 1870, v. 2, pp. 127–128, figs. 86–89.

Answer to inquiry of J. M. Shaffer; habits, food-plants, seasons, and ravages of and means against *Xyleutes* [= *Cossus*] *robiniæ*; figures larva, pupa, and male and female imagos.

1122. [RILEY, C. V.] Eggs of snowy tree-cricket on raspberry canes. <Amer. Ent., February, 1870, v. 2, p. 128.

Answer to inquiry of J. B. Root; oviposition of and means against *Œcanthus niveus*.

1123. [RILEY, C. V.] Spotted rove-beetle. <Amer. Ent., February, 1870, v. 2, p. 128.

Answer to inquiry of J. Huggins; habits of *Staphylinus maculosus* and of rove-beetles in general.

1124. [RILEY, C. V.] Raspberry gouty gall. <Amer. Ent., February, 1870, v. 2, p. 128, fig. 90.

Answer to inquiry of C. Carpenter; ravages of and means against *Agrilus ruficollis*; description and figure of larva.

1125. [RILEY, C. V.] Parasitic cocoons. <Amer. Ent., February, 1870, v. 2, p. 128, fig. 91.

Answer to inquiry of G. C. Brackett; figures cocoons and conjectures as to the habits of [*Microplitis ceratomiæ* var. *actuosus*].

1126. [RILEY, C. V.] The pigeon Tremex in apple. <Amer. Ent., February, 1870, v. 2, p. 128.

Answer to inquiry of J. Huggins; habits and food-plants of *Tremex columba*; description of imago; *Rhyssa* [= *Thalessa*] *lunator* destroys the larva.

1127. RILEY, C. V. Second annual report on the noxious, beneficial, and other insects of the State of Missouri, made to the State Board of Agriculture, pursuant to an appropriation for this purpose from the legislature of the State. <5th Ann. Rept. State Board of Agric. for 1869, March, 1870, pp. 136 + 6, 99 figs. Separate: <Jefferson City, Mo., March, 1870, pp. 136+6, 99 figs.

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1128. [RILEY, C. V.] Mr. Walsh's portrait. <Amer. Ent., March, 1870, v. 2, p. 129.

Remarks accompanying the portrait of B. D. Walsh; resolutions passed on the death of Walsh by the London branch of the Entomological Society of Ontario; by the American Entomological Society, the Illinois State Horticultural Society, and by the Kansas State Horticultural Society.

1129. RILEY, C. V. The plum Curculio, *Conotrachelus nenuphar* Herbst. <Amer. Ent., March, 1870, v. 2, pp. 130–137, fig. 92.

Paper read before the Illinois State Horticultural Society at its 14th annual meeting; summary of established facts and discussion of mooted points in the life-history of *Conotrachelus nenuphar*; seasons, habits, transformations, food-plants, enemies of and means against the same; descriptions and figures of larva and imago; figure of pupa; hibernation and the effects of climate on the prolongation of the life of insects.

1130. RILEY, C. V. Insects injurious to the grape-vine. No. 6. <Amer. Ent., March, 1870, v. 2, pp. 150–153, figs. 100–102. Reprint, with slight changes: <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 80–82, fig. 55.

Treats of *Alypia octomaculata*; see No. 1127 for synopsis of contents.

1131. [RILEY, C. V.] Pithy blackberry gall. <Amer. Ent., March, 1870, v. 2, pp. 159–160, fig. 103.

Answer to inquiry of C. W. ["S. C."] Spaulding; descriptions and figures of larva and gall of *Diastrophus nebulosus*; figure of pupa; seasons, food-plant, guest-fly [*Periclistus sylvestris*], and parasite [*Eurytoma diastrophi*] and means against this species; the genus *Diastrophus* confined to *Rosaceæ*, *Cynips* to *Cupuliferæ* and *Antistrophus* to *Compositæ*.

1132. [RILEY, C. V.] Clover-worms. <Amer. Ent., March, 1870, v. 2, p. 160.

Answer to inquiry of G. Pauls; geographical distribution, food-habits, vernacular names and synonymy of and means against *Asopia costalis*.

1133. [RILEY, C. V.] Seed-ticks under bark of apple-trees. <Amer. Ent., March, 1870, v. 2, p. 160.

Answer to inquiry of O. B. Galusha; character of insects as regards the number of legs; occurrence of *Ixodes unipunctata* under outer bark of apple-trees at Morris, Ill.

1134. [RILEY, C. V.] Parasitic cocoons. <Amer. Ent., March, 1870, v. 2, p. 160.

Answer to inquiry of S. W. Beckworth; occurrence of a mass of cocoons of [*Microplitis ceratomiæ* var. *actuosus*] under red-oak at South Pass, Ill.

1135. [RILEY, C. V.] Is any knowledge useless? <Amer. Ent. and Bot., April, 1870, v. 2, pp. 164–166.

Reprint of article from Manufacturer and Builder, November, 1869; minute investigations in science may be of great practical importance; cases in which a knowledge of life-history of *Galeruca calmariensis* [=*xanthomelæna*], *Conotrachelus nenuphar*, and *Lymexylon navale* was or might have been of great value.

1136. [RILEY, C. V.] Tomato fruit-worm. <Amer. Ent. and Bot., April, 1870, v. 2, p. 172.

Notice of statement by J. J. Weir that *Heliothis armigera* was bred from larvæ which fed on the fruit of tomato in England; food-plants of this insect.

1137. RILEY, C. V. Insects injurious to the grape-vine. No. 7. <Amer. Ent. and Bot., April, 1870, v. 2, pp. 173–174, figs. 107–108. Reprinted, with slight changes, from <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 85–87, figs. 58–59.

Treats of *Procris* [=*Harrisina*] *americana*; see No. 1127 for synopsis of contents.

1138. [RILEY, C. V.] The death web of young trout. <Amer. Ent. and Bot., April, 1870, v. 2, p. 174.

Reprint, with review, of Seth Green's "An enemy to young trout;" young trout and young white-fish killed by the web of an unknown aquatic larva, probably one of the caddis-flies; habits of the larvæ of *Phryganeidæ*. See No. 1160.

1139. [RILEY, C. V.] "Scab" in apple *v.* apple-tree plant-lice. <Amer. Ent. and Bot., April, 1870, v. 2, p. 178.

Notes the freedom of apple-trees in 1870 from the eggs of *Aphis mali*, and the opportunity to test the question of the connection of these insects with the "scab."

1140. [RILEY, C. V.] Insects named. <Amer. Ent. and Bot., April, 1870, v. 2, p. 179.

Answer to inquiry of M. Hobart; identification of several insects; food-plants of *Grapta comma*, *Geometra* [=*Zerene*] *catenaria*, *Serica vespertina*, and *Tetraopes 5-maculatus*; geographical distribution of *Grapta comma*; description of larva of *Ecpantheria scribonia*.

1141. [RILEY, C. V.] Supposed trout enemy. <Amer. Ent. and Bot., April, 1870, v. 2, pp. 179–180.

Answer to inquiry of F. Mather; identification of several insects; habits and occurrence of *Capnia minima*; occurrence of *Piophila casei* and *Ptinus brunneus* at Honeoye Falls, N. Y.

1142. [RILEY, C. V.] Food for trout. <Amer. Ent. and Bot., April, 1870, v. 2, p. 180.

Answer to inquiry of Seth Green and Collins; with knowledge of the character of the worms which forms a desirable food for young trout, it may be possible to suggest some method of propagating the worms artificially.

1143. [RILEY, C. V.] Hair-snakes. <Amer. Ent. and Bot., April, 1870, v. 2, p. 180.

Answer to inquiry of E. W. M.; parasitic habits, abodes and prolificacy, and classificatory relations of *Gordius varius* and *G. aquaticus*.

1144. [RILEY, C. V.] Egg-sack of some unknown spider. <Amer. Ent. and Bot., April, 1870, v. 2, p. 180.

Answer to inquiry of A. Engelmann; figure of egg-sack of *Epeira* sp.?

1145. [RILEY, C. V.] Do worker bees sting the drones to death? <Amer. Ent. and Bot., April, 1870, v. 2, p. 180.

Answer to inquiry of M. W. V.; there is no good reason to doubt that worker bees sting the drones to death when the mission of the latter is ended.

1146. [RILEY, C. V.] Red spider. <Amer. Ent. and Bot., April, 1870, v. 2, p. 180.

Answer to inquiry of R. H. Warder; *Trombidium* [=*Tetranychus*] *telarius* imported from Europe; size, color, and abodes of and means against the same.

1147. [RILEY, C. V.] Insect named. <Amer. Ent. and Bot., April, 1870, v. 2, p. 180.

Answer to inquiry of M. Barrett; food-habits of *Psocus venosus* and other *Psocidæ*.

1148. [RILEY, C. V.] To destroy plant-lice. <Amer. Ent. and Bot., April, 1870, v. 2, p. 180.

Answer to inquiry of B. F. Lazear; means against *Aphididæ* on house plants.

1149. [RILEY, C. V.] Raspberry root-gall. <Amer. Ent. and Bot., April, 1870, v. 2, p. 181, fig. 110.

Answer to inquiry of K. Parsons; description and figure of gall of *Rhodites radicum* occurring on roots of *Rosaceæ*; genera of parasites raised from it; interest of the question of the manner and extent of parasitization of this gall.

1150. [RILEY, C. V.] Spined slug-worm. <Amer. Ent. and Bot., April, 1870, v. 2, p. 181.

Answer to inquiry of L. G. Saffer and A. R. Bodley; brief description of the larva of *Limacodes* sp.

1151. [RILEY, C. V.] Apple-tree insects. <Amer. Ent. and Bot., April, 1870, v. 2, p. 181.

Answer to inquiry of L. Camfield; identification of specimens and directions for the destruction of *Orgyia leucostigma* and *Phycita nebulo* [= *Acrobasis indiginella*].

1152. [RILEY, C. V.] Native apple-tree bark-lice. <Amer. Ent. and Bot., April, 1870, v. 2, p. 181, fig. 111.

Answer to inquiry of A. C. Hammond; food-plants of and means against *Diaspis harrisii* [= *Chionaspis furfurus*]; figure of infested twig of apple; the presence of enemies and parasites prevent this species becoming a formidable pest.

1153. [RILEY, C. V.] The hedge-hog caterpillar. <Amer. Ent. and Bot., April, 1870, v. 2, p. 182, fig. 112.

Answer to inquiry of H. Burt; descriptions and figures of larva and imago of *Arctia* [= *Pyrrharctia*] *isabella*; figure of pupa and cocoon; habits and hibernation; its larva and that of *Ecpantheria scribonia* called "fever-worm," and ignorantly supposed to cause malarial fevers; food-habits of *Horinus* [= *Merinus*] *lævis*.

1154. [RILEY, C. V.] Chick-weed Geometer. <Amer. Ent. and Bot., April, 1870, v. 2, p. 182.

Answer to inquiry of J. Huggins; identification of specimens; reference to account of *Hæmatopis grataria*; *Cermatia forceps* common in houses in the latitude of St. Louis, Mo.; the sulphur remedy for canker-worms absurd.

1155. [RILEY, C. V.] Bean-weevil. <Amer. Ent. and Bot., April, 1870, v. 2, p. 182.

Answer to inquiry of G. W. Copley; specimens identified; occurrence and ravages of *Bruchus obsoletus* in Illinois.

1156. [RILEY, C. V.] Bag-worm at South Pass, Ill. <Amer. Ent. and Bot., April, 1870, v. 2, p. 182.

Answer to inquiry of G. H. Baker; occurrence of *Thyridopteryx ephemeræformis* at South Pass, Ill.; importance of its destruction.

1157. [RILEY, C. V.] Eggs of oblong-winged katy-did. <Amer. Ent. and Bot., April, 1870, v. 2, p. 182.

Answer to inquiry of E. D. Ladd; differences between the eggs of *Phylloptera* [= *Amblycorypha*] *oblongifolia* and those of *Platyphyllum* [= *Cyrtophyllus*] *concavus*; the former occur on currant and various trees.

1158. [RILEY, C. V.] Insects injurious to the grape-vine. No. 8. <Amer. Ent. and Bot., May, 1870, v. 2, pp. 208–209, fig. 127. Reprint, with slight changes: <3d Ann. Rept. State Ent. Mo., April, 1871, pp. 61–63, fig. 24.

Treats of *Desmia maculalis*; see No. 1301 for synopsis of contents.

1159. [RILEY, C. V.] The periodical Cicada alias the 17-year and 13-year locust. <Amer. Ent. and Bot., May, 1870, p. 211.

Quotes, from the 1st Ann. Rept. State Ent. Mo., the localities in which *Cicada* [= *Tibicen*] *septendecim* and *C.* [= *T.*] *tredecim* will appear in 1870, with request for reports of the occurrence of these insects.

1160. [RILEY, C. V.] The death-web of young trout. <Amer. Ent. and Bot., May, 1870, v. 2, p. 211.

Supplementary to No. 1138; the larvæ mentioned belong to the genus *Simulium*.

1161. [RILEY, C. V.] Worms under mulch hay. <Amer. Ent. and Bot., May, 1870, v. 2, p. 212.

Answer to inquiry of J. F. Flagg; description, season, habits, and ravages of and means against the larvæ of *Tipula* sp.

1162. [RILEY, C. V.] A new pear-tree insect. <Amer. Ent. and Bot., May, 1870, v. 2, p. 212, fig. 129.

Answer to inquiry of E. J. Ayres; food-habits and ravages of and means against *Platycerus quercus*; figure of imago.

1163. [RILEY, C. V.] Apple-twig borer. <Amer. Ent. and Bot., May, 1870, v. 2, p. 212.

Answer to inquiry of J. B. Myers; *Bostrichus* [= *Amphicerus*] *bicaudatus* bores into the axil of limbs of pear-trees.

1164. [RILEY, C. V.] Cocoons of polyphemus moth. <Amer. Ent. and Bot., May, 1870, v. 2, 212.

Answer to inquiry of H. J. Dunlap; cocoon of *Attacus* [= *Telea*] *polyphemus* found on Morello cherry-tree.

1165. [RILEY, C. V.] Galls on supposed dock. <Amer. Ent. and Bot., May, 1870, v. 2, p. 212.

Answer to inquiry of S. V. Summers; *Gelechia gallæ-solidaginis* forms galls on stems of *Solidago*; *Gastrophysa* [= *Gastroidea*] *cyanea* breeds on *Rumex*.

1166. [RILEY, C. V.] Mossy rose-gall. <Amer. Ent. and Bot., May, 1870, v. 2, p. 213, fig. 130.

Answer to inquiry of W. M. Locke; description of gall, larva, and imago of *Rhodites rosæ*; figure of the gall; description of a parasitic larva.

1167. [RILEY, C. V.] Punctures on the rose-twig. <Amer. Ent. and Bot., May, 1870, v. 2, p. 213, fig. 131.

Answer to inquiry of G. W. Copley; punctures in rose-stem; eggs, probably of a cricket, imbedded in pith of the same; description of the egg and figure of injured stem.

1168. [RILEY, C. V.] Snout-beetle. <Amer. Ent. and Bot., May, 1870, v. 2, p. 213.

Answer to inquiry of Mary Treat; *Hylobius confusus* a timber borer and usually in pine.

1169. [RILEY, C. V.] The oyster-shell bark-louse in Missouri. <Amer. Ent. and Bot., May, 1870, v. 2, pp. 213–214, fig. 132.

Answer to inquiry of B. P. Hanan; occurrence of *Aspidiotus conchiformis* [= *Mytilaspis pomorum*] in Missouri; importance of the thorough extirpation of the insect; figure of a piece of bark infested by the same.

1170. [RILEY, C. V.] The pod-like willow-gall. <Amer. Ent. and Bot., May, 1870, v. 2, p. 214, fig. 133.

Answer to inquiry of J. R. Muhleman; description and figure of the gall of *Cecidomyia salicis-siliqua*; figure of larva; food-plants, synonymy, and description of the pupa of the same.

1171. [RILEY, C. V.] Bee-nest. <Amer. Ent. and Bot., 1870, v. 2; May, p. 214, fig. 134; September, p. 307.

Answer to inquiry of J. R. Muhleman; description and figure of larva of *Prosopis affinis* in hot, low currant-stem; probability that *Ceratina dupla* breeds twice a year.

1172. [RILEY, C. V.] Beetles named. <Amer. Ent. and Bot., May, 1870, v. 2, p. 214.

Answer to inquiry of S. V. Summers; specimens identified; difference between *Canthon lævis* and *C. chalcites*.

1173. [RILEY, C. V.] Great discovery: Curculio extermination possible! <Amer. Ent. and Bot., June, 1870, v. 2, pp. 225–227. Notice: <Cultivator and Country Gentleman, 9 June, 1870, v. 35, p. 361.

Reprint of articles by J. E. Chamberlain and Mrs. H. Wier on the destruction of the Curculio; letter from W. B. Ransom; criticism of the same; means against *Conotrachelus nenuphar*; distinctions between *C. nenuphar* and *Anthonomus quadrigibbus*.

1174. [RILEY, C. V.] The death-web of young trout. <Amer. Ent. and Bot., June, 1870, v. 2, pp. 227–228, figs. 143–144.

Value and progress of fish-culture; habits of *Simulium piscicidium*, with the observations of Seth Green and Sara J. McBride; figures larva and pupa of *S. piscicidium* and the imago of *S. molestum*.

1175. [RILEY, C. V.] Insects injurious to the grape-vine. No. 9. <Amer. Ent. and Bot., June, 1870, v. 2, pp. 234–235, fig. 148. Reprint, with slight changes: <3d Ann. Rept. State Ent. Mo., April, 1871, pp. 65–68, fig. 27.

Treats of *Pterophorus* [= *Oxyptilus*] *periscelidactylus*; see No. 1301 for synopsis of contents.

1176. [RILEY, C. V.] The apple Curculio. <Amer. Ent. and Bot., June, 1870, v. 2, p. 243, fig. 152.

Figures of the imago of *Anthonomus quadrigibbus*.

1177. [RILEY, C. V.] The new Curculio remedy. <Amer. Ent. and Bot., June, 1870, v. 2, p. 243.

Results of experiments in the use of Ransom chip-trap for *Conotrachelus nenuphar*.

1178. [RILEY, C. V.] Tarantula of Texas. <Amer. Ent. and Bot., June, 1870, v. 2, p. 244.

Answer to inquiry of L. J. Stroop; the figure of *Mygale hentzii* given in volume one is somewhat incorrect.

1179. [RILEY, C. V.] Ailanthus silk-worm naturalized. <Amer. Ent. and Bot., June, 1870, v. 2, p. 244.

Answer to inquiry of A. S. Fuller; introduction and naturalization of *Attacus cynthia*.

1180. [RILEY, C. V.] Cypress-gall. <Amer. Ent. and Bot., June, 1870, v. 2, p. 244, fig. 153.

Answer to inquiry of J. P. Stelle; description and figures of gall and description of gall and imago of *Cecidomyia cupressi-ananassa* n. sp. on cypress; figures breast-bone of the larva.

1181. [RILEY, C. V.] Tent-caterpillar of the forest. <Amer. Ent. and Bot., June, 1870, v. 2, p. 245.

Answer to the inquiries of A. M. Brown and J. H. Evans; habits, food-plants, and ravages of *Clisiocampa sylvatica* [=*disstria*] and *C. americana*.

1182. [RILEY, C. V.] Worm-boring into peach. <Amer. Ent. and Bot., June, 1870, v. 2, p. 245.

Answer to inquiries of W. C. Flagg, A. C. Hammond, and M. M. Hooton; food-plants and description of larva of *Xylina cinerea* [=*Lithophane antennata*].

1183. [RILEY, C. V.] Insects named. <Amer. Ent. and Bot., June, 1870, v. 2, p. 245.

Answer to inquiry of A. Engelman; descriptions of *Smilia auriculata* and *Membracis ampelopsidis*; both species common on grape-vines.

1184. [RILEY, C. V.] Lice on "snow-balls. <Amer. Ent. and Bot., June, 1870, v. 2, p. 245.

Answer to inquiry of Mrs. C. L. Seymour; means against *Aphididæ*.

1185. [RILEY, C. V.] Twig-borer. <Amer. Ent. and Bot., June, 1870, v. 2 p. 245, fig. 154.

Answer to inquiries of S. H. Kriedelbaugh and G. F. Merriam; figures of male and female *Bostrichus* [=*Amphicerus*] *bicaudatus*, which bore into the axils of grape-buds.

1186. [RILEY, C. V.] Bee enemy. <Amer. Ent. and Bot., June, 1870, v. 2, p. 245.

Answer to inquiry of F. Brewer; *Staphylinus maculosus*, found eating a bee, is rather a scavenger than an insect of prey.

1187. [RILEY, C. V.] Knots on apple-tree roots caused by root-lice. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246.

Answer to inquiry of B. N. McKinstry; ravages of and means against *Schizoneura lanigera* on roots of young apple-trees.

1188. [RILEY, C. V.] Beetles named. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246.

Answer to inquiry of W. W. Daniells; *Ithycerus noveboracensis* injures apple-leaves.

1189. [RILEY, C. V.] Bag-worm. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246.

Answer to inquiry of M. M. Hooten; occurrence of young larva of *Thyridopteryx ephemeræformis* on peach-trees; manner in which they carry their cases.

1190. [RILEY, C. V.] The larder-beetle. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246.

Answer to inquiry of S. H. Kriedelbaugh; food-habits and description of the larva and imago of *Dermestes lardarius*.

1191. [RILEY, C. V.] Water-bug. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246.

Answer to inquiry of W. H. Harrington; habits and description of *Ranatra fusca*.

1192. [RILEY, C. V.] Gregarious worms on horse-chestnut. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246.

Answer to inquiry of W. R. Howard; oviposition, food-plant, and parasite of *Tortrix* [=*Cacoecia*] *rileyana*.

1193. [RILEY, C. V.] Pupa of the disippus butterfly. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246, fig. 155.

Answer to inquiry of T. Montgomery; figure and colors of pupa of *Limenitis disippus*; food-plants and hibernations of larva.

1194. [RILEY, C. V.] Prickly-rose gall. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246.

Answer to inquiry of J. Cochrane and J. P. Stelle; brief description of the gall of *Rhodites bicolor* on wild rose.

1195. [RILEY, C. V.] Insects feeding on sap of black-walnut. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246.

Answer to inquiry of M. Barrett; food-habits of *Psocus venosus*.

1196. [RILEY, C. V.] Locust-borer. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246.

Answer to inquiry of "Arbor;" means against *Arhopalus* [= *Cyllene*] *robiniæ*.

1197. [RILEY, C. V.] To exterminate cockroaches. <Amer. Ent. and Bot., June, 1870, v. 2, p. 246.

Answer to inquiry of R. F. Weitbree; means against cockroaches.

1198. [RILEY, C. V.] The white-lined morning Sphinx. (*Deilephila lineata*, Fabr.) <Amer. Ent. and Bot., July–August, 1870, v. 2, pp. 257–258, figs. 162–164. Reprint, with additions and slight changes: <3d Ann. Rept. State Ent. Mo., April, 1871, pp. 140–142, figs. 60–62.

Treats of *Deilephila lineata*; see No. 1301 for synopsis of contents.

1199. [RILEY, C. V.] Descriptive entomology. <Amer. Ent. and Bot., July–August, 1870, v. 2, pp. 258–261. Abstract: <Cultivator and Country Gentleman, 6 April, 1871, v. 36, p. 218.

Critical review of a remark by J A. Lintner; calculation of the cost, labor, and extent of a work containing the description and figure of every existing species of insect.

1200. [RILEY, C. V.] The tent-caterpillar of the forest. (*Clisiocampa sylvatica*, Harr.) <Amer. Ent. and Bot., July–August, 1870, v. 2, pp. 261–266, figs. 165–168. Reprint, with additions and slight changes: <3d Ann. Rept. State Ent. Mo., April, 1871, pp. 121–129, figs. 52–54.

Treats of *Clisiocampa sylvatica* [= *disstria*]; see No. 1301 for synopsis of contents.

1201. [RILEY, C. V.] The Ransom Curculio remedy. <Amer. Ent. and Bot., July–August, 1870, v. 2, pp. 268–271.

Discussion of the efficacy of the Ransom chip-trap against *Conotrachelus nenuphar*; extracts from and criticism of articles by E. S. Hull, W. B. Ransom, and others on this subject.

1202. [RILEY, C. V.] Insects injurious to the grape-vine. No. 10. <Amer. Ent. and Bot., July–August, 1870, v. 2, pp. 272–273, fig. 170. Reprint, with additions and slight changes. <3d Ann. Rept. State Ent. Mo., April, 1871, pp. 68–69, fig. 28.

Treats of *Spilosoma virginica*; see No. 1301 for synopsis of contents.

1203. [RILEY, C. V.] The Walsh entomological cabinet. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 275.

Remarks on the purchase and disposal of the entomological collection of B. D. Walsh.

1204. [RILEY, C. V.] The currant-worm! <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 275.

Comments upon the confusing way in which some horticultural publications treat of *the* currant-worm, without discrimination of species.

1205. [RILEY, C. V.] Water larva. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 275.

Answer to inquiry of F. Mather; habits of the larvæ of *Ephemeridæ*.

1206. [RILEY, C. V.] Large black potato-beetles. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 275.

Answer to inquiry of R. S. Elliott; *Epicauta corvina?* injuring potato-vines in Kansas.

1207. [RILEY, C. V.] Destroying cherry plant-lice. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 275.

Answer to inquiry of G. C. Brackett; means against *Myzus cerasi*.

1208. [RILEY, C. V.] Caterpillars on grape-vines. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 275.

Answer to inquiry of G. A. Watson; larvæ of *Alypia octomaculata* and *Acronycta oblinita* found on grape-vines; food-plants of the latter species.

1209. [RILEY, C. V.] Ash-gray blister-beetle. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 275.

Answer to inquiry of P. H. Foster; *Lytta cinerea* [= *Macrobasis unicolor*] feeding on the three-thorned Acacia.

1210. [RILEY, C. V.] Specimens lost. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 276.

Answer to inquiry of C. H. Roberts; food-habits and description of larva of *Gortyna nitela* and of an undetermined moth on peach-trees.

1211. [RILEY, C. V.] White willow worm. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 276.

Answer to inquiry of S. H. K.; food-plants and description of larva of and means against *Nematus ventralis*.

1212. [RILEY, C. V.] Bark-lice on grape-vine and raspberry saw-fly. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 276.

Answer to inquiry of S. Thompson; *Lecanium* [= *Pulvinaria*] *vitis* common on grape-vines in Europe and North America; its oviposition and occurrence in Illinois; description and means against the larva of *Selandria* [= *Monophadnus*] *rubi*.

1213. [RILEY, C. V.] Apple-tree borer; variations in the two-striped Saperda. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 276.

Answer to inquiry of D. B. Wier; colorational variations in *Saperda bivittata* [= *candida*]; abundance and ravages of *Capsus oblineatus* [= *Lygus pratensis*].

1214. [RILEY, C. V.] The plum Curculio breeds in apple. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 276.

Answer inquiry of E. Leming; *Conotrachelus nenuphar* breeds in the fruit of apple.

1215. [RILEY, C. V.] Cecropia worm. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 276.

Answer to inquiry of J. F. Thompson; occurrence and ravages of the larva of *Attacus cecropia* on apple-trees.

1216. [RILEY, C. V.] Gigantic rhinoceros beetle. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 276.

Answer to inquiry of L. G. Saffer; variations in coloration of *Dynastes tityus*.

1217. [RILEY, C. V.] Roman-nosed pupa. <Amer. Ent. and Bot., July–August, 1870, v. 2, p. 276.

Answer to inquiry of E. D. Van Winkle; food-habits of *Limenitis ursula* and *L. disippus*; the pupæ of the two species are alike.

1218. [RILEY, C. V.] The onward march of the Colorado potato-beetle. A word to our Canadian neighbors. <Amer. Ent. and Bot., September, 1870, v. 2, pp. 289–291, fig. 181.

Remarks on the spread of *Doryphora decemlineata* into Ontario, and means of checking it; efficacy and proper use of Paris green; other remedies; *Lebia grandis* a natural enemy of the larvæ.

1219. [RILEY, C. V.] The tarnished plant-bug. (*Capsus oblineatus*, Say). <Amer. Ent. and Bot., September, 1870, v. 2, pp. 291–293, fig. 182. Reprinted, with additions and slight changes, from <2d Ann. Rept. State Ent. Mo., March, 1870, pp. 113–115, fig. 83.

Treats of *Capsus oblineatus* [=*Lygus pratensis*]; see No. 1127 for synopsis of contents.

1220. [RILEY, C. V.] Osage orange for the mulberry silk-worm. <Amer. Ent. and Bot., September, 1870, v. 2, p. 293.

Reprint and critical review of S. Cornaby's article on the above; important articles should not be published anonymously.

1221. [RILEY, C. V.] Insects injurious to the grape-vine. No. 11. <Amer. Ent. and Bot., September, 1870, v. 2, p. 295, fig. 185. Reprint with slight changes. <3d Ann. Rept. State Ent. Mo., April, 1871, pp. 77–79, fig. 34.

Treats of *Pelidnota punctata*; see No. 1301 for synopsis of contents.

1222. [RILEY, C. V.] The slug on pear and cherry trees. <Amer. Ent. and Bot., September, 1870, v. 2, p. 296.

Reprint and critical review of "Addi" on the above; ravages of and means against *Selandria* [=*Eriocampa*] *cerasi*.

1223. [RILEY, C. V.] Appendix to joint-worm article published in vol. 1, No. 8 <Amer. Ent. and Bot., September, 1870, v. 2, pp. 296–297.

Introduction to and explanation of the preparation and publication of Walsh's *Eurytomides*. See No. 384.

1224. [RILEY, C. V.] Entomology indeed run mad! <Amer. Ent. and Bot., September, 1870, v. 2, p. 305.

Critical review of Mark Miller's article on the currant-worm; *Nematus ventricosus* [=*ribesii*] confounded with *Eufitchia ribearia*.

1225. [RILEY, C. V.] Red spider. <Amer. Ent. and Bot., September, 1870, v. 2, p. 305.

Ravages and transformations of *Tetranychus telarius*.

1226. [RILEY, C. V.] Insects named. <Amer. Ent. and Bot., September, 1870, v. 2, p. 306.

Answer to inquiry of J. K. Kidd; food-habits of *Silpha peltata* [=*americana*] and allied forms, of *Calosoma scrutator* and of *Laphria* [=*Dasyllis*] *thoracica*; mimicry between *Laphria* and *Bombus* and its use.

1227. [RILEY, C. V.] Caterpillar of white-marked tussock moth. <Amer. Ent. and Bot., September, 1870, v. 2, p. 306, fig. 186.

Answer to inquiry of G. C. Brackett; figure of larva and description of imago of *Orgyia leucostigma*; posture of male in repose; habits of female; *Saperda bivittata* [=*candida*] usually perishes if it has not changed to a pupa before the death of the tree; *Chrysobothris femorata* lives for weeks on dead wood.

1228. [RILEY, C. V.] Does the apple Curculio go underground to transform? <Amer. Ent. and Bot., September, 1870, v. 2, p. 306.

Answer to inquiry of W. Muir; *Anthonomus quadrigibbus* transforms within the fruit; it does not attack stone fruit.

1229. [RILEY, C. V.] Walnut caterpillars. <Amer. Ent. and Bot., September, 1870, v. 2, p. 306.

Answer to inquiry of G. M. Levette; seasons, habits, and food-plant of and means against *Datana ministra*; description of larva.

1230. [RILEY, C. V.] Striped blister-beetle. <Amer. Ent. and Bot., September, 1870, v. 2, p. 306, fig. 187.

Answer to inquiry of A. Galt; means against *Epicauta vittata* and other *Meloidæ* on potato vines; figure of *Epiçauta vittata*.

1231. [RILEY, C. V.] Grape-vine Fidia. <Amer. Ent. and Bot., September, 1870, v. 2, p. 307, fig. 188.

Answer to inquiry of J. Hetzel; habits, ravages, and food-plants of and means against *Fidia viticida*; figure of this species.

1232. [RILEY, C. V.] Some interesting insects. <Amer. Ent. and Bot., September, 1870, v. 2, p. 307.

Answer to inquiry of A. S. Fuller; ravages of *Bruchus obsoletus* in Lima beans; of *Butalis cerealella* in flint corn in stems and of *Lobesia* [=*Eudemis*] *botrana* in blossoms of blackberry; description of the larva case of *Phycita nebulo* [=*Acrobasis indiginella*] and of galls of *Cecidomyia tubicola* on *Carya*.

1233. [RILEY, C. V.] The green hag-moth. <Amer. Ent. and Bot., September, 1870, v. 2, p. 307.

Answer to inquiry of S. B. Shaw; food-plants, and synonymy of *Callochlora viridis* [=*Parasa chloris*]; description of larva and imago; the larva described by Reakirt does not belong to this species.

1234. [RILEY, C. V.] The antiopa butterfly. <Amer. Ent. and Bot., September, 1870, v. 2, p. 307.

Answer to inquiry of A. S. Moss; description of larva and imago of *Vanessa antiopa*; the larva feeds on willow; vernacular name and comparative abundance.

1235. [RILEY, C. V.] Rose-gall and pupa of archippus butterfly. <Amer. Ent. and Bot., September, 1870, v. 2, p. 307, fig. 189.

Answer to inquiry of L. B. Custar; figure of pupa of *Danais archippus*; descriptions of three undetermined galls on rose-leaf formed by *Rhodites* sp.?

1236. [RILEY, C. V.] White grubs in strawberry beds. <Amer. Ent. and Bot., September, 1870, v. 2, p. 307.

Answer to inquiry of J. B. Miller; food-habits of larva and description of imago of *Cyclocephala immaculata*.

1237. [RILEY, C. V.] Larva of the thoas swallow-tail. <Amer. Ent. and Bot., September, 1870, v. 2, p. 308.

Answer to inquiry of E. H. Sprague; food-plant and description of larva of *Papilio thoas* [=*cresphontes*]; the larva rare in Missouri.

1238. [RILEY, C. V.] Larva of clubbed tortoise-beetle. <Amer. Ent. and Bot., September, 1870, v. 2, p. 308.

Answer to inquiry of A. R. Bodley; *Cassida*, *Coptocycla* and *Deloyala* feed on *Convolvulaceæ* with the exception of *Deloyala* [=*Coptocycla*] *clavata* which feeds on *Solanaceæ*.

1239. [RILEY, C. V.] The banded Ips in calyx of pear. <Amer. Ent. and Bot., September, 1870, v. 2, p. 308.

Answer to inquiry of G. C. Brackett; food-habits and description of *Ips fasciatus*.

1240. [RILEY, C. V.] The larder-beetle. <Amer. Ent. and Bot., September, 1870, v. 2, p. 308, fig. 191.

Answer to inquiry of F. S. Sleeper; figures of larva and imago and of magnified hair of larva of *Dermestes lardarius*; ravages in collections of preserved animals.

1241. [RILEY, C. V.] Moth named. <Amer. Ent. and Bot., September, 1870, v. 2, p. 308.

Answer to inquiry of E. M. Hale; description of *Ctenucha latreillana* [=*virginica*]; its abundance in 1870 in the vicinity of St. Louis, Mo.

1242. [RILEY, C. V.] The little Cicada. <Amer. Ent. and Bot., September, 1870, v. 2, p. 308.

Answer to inquiry of G. O. Hardeman; occurrence of *Cicada* [=*Melampsalta*] *parvula* in Missouri.

1243. [RILEY, C. V.] The brown mantispian. <Amer. Ent. and Bot., September, 1870, v. 2, p. 308.

Answer to inquiry of G. C. Bracket; *Mantispa brunnea* common, predaceous, and beneficial.

1244. [RILEY, C. V.] Small reddish snout-beetle on apple. <Amer. Ent. and Bot., September, 1870, v. 2, p. 30.

Answer to inquiry of J. Weed; food-habits and description of *Anthonomus cratægi*.

1245. [RILEY, C. V.] Prickly rose-gall. <Amer. Ent. and Bot., September, 1870, v. 2, p. 309, fig. 192.

Answer to inquiry of "Subscriber;" description and figure of galls and description of *Rhodites bicolor*.

1246. [RILEY, C. V.] Questions answered. <Amer. Ent. and Bot., September, 1870, v. 2, p. 309.

Answer to inquiries of K. Parsons; formation and use of portable cases by *Tineina*; habits and character of the young of *Mytilaspis pomicorticis* [=*pomorum*]; food-habits of ants.

1247. [RILEY, C. V.] Hog-caterpillar of the vine infested with parasites. <Amer. Ent. and Bot., September, 1870, v. 2, p. 309.

Answer to inquiry of J. M. Wilson; occurrence of larva of *Darapsa* [=*Ampelophaga*] *myron* parasitized by *Apanteles congregatus*.

1248. [RILEY, C. V.] Larva of Abbot Sphinx. <Amer. Ent. and Bot., September, 1870, v. 2, p. 309.

Answer to inquiry of S. E. Todd; occurrence of larva of *Thyreus abbotii* on grape-vine; means against the same.

1249. [RILEY, C. V.] Cecropia worm. <Amer. Ent. and Bot., September, 1870, v. 2, p. 309.

Answer to inquiry of E. G. Hofman; occurrence of *Attacus cecropia* on plum.

1250. [RILEY, C. V.] Flat-headed borer in soft maples. <Amer. Ent. and Bot., September, 1870, v. 2, p. 309.

Answer to inquiry of L. R. Elliott; ravages of and means against *Chrysobothris femorata* on soft maple; ravages of *Arhopalus* [=*Cyllene*] *robiniæ* on black-locust.

1251. [RILEY, C. V.] Cherry plant-lice and their foes. <Amer. Ent. and Bot., September, 1870, v. 2, p. 309, fig. 193.

Answer to inquiry of C. H. Roberts; occurrence on cherry-trees of *Aphis* [=*Myzus*] *cerasi*, and of its enemies, the larva of *Hippodamia convergens* and *Syrphus* sp.; figure of the larva, pupa, and imago of the former; positions in which both species transform.

1252. [RILEY, C. V.] Grape-vine flea-beetle. <Amer. Ent. and Bot., September, 1870, v. 2, p. 309.

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1302. RILEY, C. V. Snout-beetles injurious to fruits. <Trans. Ill. Hortic. Soc. for 1870, 1871, n. s., v. 4, pp. 89–124, figs. 1–11. Reprint, with additions and omissions: <3d Ann. Rept. State Ent. Mo., April, 1871, pp. 5–44, figs. 1, 3, 4, 7–14.

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1311. RILEY, C. V. Fourth annual report on the noxious, beneficial, and other insects of the State of Missouri, made to the State Board of Agriculture, pursuant to an appropriation for this purpose from the legislature of the State. <7th Ann. Rept. State Board of Agric. for 1871, April, 1872, pp. 146+6, 66 figs. Separate: <Jefferson City, Mo., April, 1872, pp. 146+6, 66 figs. Notice: <Horticulturist, August, 1872, v. 27, p. 251. <Ent. Mo. Mag., July, 1872, v. 9, p. 47.

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* Extract in <Sci. Amer., 25 May, 1872, v. 25, p. 351.

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1312. RILEY, C. V. Thomas Wier's apple-worm trap. <Amer. Agric., April, 1872, v. 31, pp. 142–143, 1 fig.

Description and figure of Wier's apple-worm trap.

1313. [RILEY, C. V.] Remarkable parasitic fungus. <Sci. Amer., 25 May, 1872 [v. 40], n. s., v. 26, p. 347.

Description and figure of unidentified fungus infesting the larva of the white grub, *Lachnosterna fusca*.

1314. RILEY, C. V. Cut-worm lion. <Colman's Rural World, 15 June, 1872, fig. S.-b. No. 5, p. 47.

History of the larva and imago of *Calosoma calidum*, an enemy to cut-worms.

1315. RILEY, C. V. Cut-worms. <Cultivator and Country Gentleman, 20 June, 1872, v. 37, p. 392.

Dandelions and other weeds furnish food for young cut-worms which hatch in the fall; land should be kept clear of weeds at that season.

1316. RILEY, C. V. Flat-headed apple tree-borer in horse chestnut. <Colman's Rural World, 22 June, 1872, fig. S.-b. No. 5, p. 47.

Answer to inquiry of S. S. R.; natural history of larva and imago of *Chrysobothris femorata*.

1317. RILEY, C. V. A new insect. <Western Planter, 29 June, 1872. S.-b. No. 5, p. 49.

Answer to inquiry of F. Halsinger; *Nysius* n. sp., very destructive to potatoes.

1318. RILEY, C. V. Codling-moth; jarring down infested fruit. <Cultivator and Country Gentleman, 4 July, 1872, v. 37, p. 422.

Excrement outside of the fruit indicates the exit of the worm, with some varieties; with others the worm may be often found after the excrements are visible.

1319. RILEY, C. V. Food for silkworms. <Colman's Rural World, 13 July, 1872. S.-b. No. 5, p. 40.

Osage orange superior to red-mulberry.

1320. RILEY, C. V. The apple maggot-fly, *Trypeta pomonella* Walsh. <Amer. Agric., July, 1872, v. 31, pp. 263–264, 2 figs.

Answer to letter of J. H. Spatter; comparative descriptions and figures of larvæ, pupæ, and imagos of *Trypeta pomonella* and *Carpocapsa pomonella*; figures showing injuries of both species; distribution and means against *Trypeta pomonella*.

1321. RILEY, C. V. Worms on Dutchman's pipe. <Colman's Rural World, 3 August, 1872, fig. S.-b. No. 5, p. 136.

Answer to inquiry of J. T. C.; life-history of *Papilio philenor*.

1322. RILEY, C. V. Apple-leaf worm. The apple-leaf skeletonizer. <Colman's Rural World, 10 August, 1872, fig. S.-b. No. 5, p. 138.

Answer to inquiry of L. R. Bryant; habits and times of appearance of *Pempelia hammondi*.

1323. RILEY, C. V. Eggs in grape-canes and apple-twigs. <Amer. Agric., August, 1872, v. 31, p. 302, figs. 1–7.

Figures of eggs and of twigs punctured by *Orocharis saltator*, *Œcanthus niveus*, and *Ceresa bubalus*; figures imagos of the same; habits, descriptions of eggs, and imagos of the three species.

1324. RILEY, C. V. Borers in evergreens. <Gardener's Mo. and Hortic., December, 1872, v. 14, p. 373.

Larvæ of *Monohammus titillator* the worst enemy of the white-pine; another species of *Cerambycidæ* injurious to red-cedars; a host of bark-borers affect all kinds of evergreens.

1325. RILEY, C. V. Einige unserer schädlicherer Insekten. <St. Louis, Mo., 1872, p. 35, il. S.-b. No. 19, pp. 174–190.

Causes of the decadence of viticulture in the United States; habits, ravages, specific identity, and figures of several stages of the leaf-inhabiting and root-inhabiting forms of *Phylloxera vastatrix*; identity of the European and American grape *Phylloxera*; susceptibility of the different species of grape to the attacks of the same; principal manifestations of attack; preventive and remedial measures; description and figures of *Conotrachelus nenuphar*; habits, ravages, parasites, enemies, and means against it; description of Ransom's trap, Hull's, Ward's, and Hooten's machines for capturing the imagos; figures of the machines. Natural history, food-plants, distribution, enemies, parasites, and means against *Doryphora decemlineata*; figures of all stages of the same; use of Paris green and other powders; mechanical devices for collecting the insects.

1326. RILEY, C. V. Harvest mites. <Amer. Nat., January, 1873, v. 7, pp. 16–19, fig. 5. Extract: <Colman's Rural World, 21 June, 1876, 2 figs. S.-b. No. 10, pp. 170, 171.

List of insect parasites on man; description, figures, habits of and means against *Leptus* [= *Tetranychus*] *americanus* n. sp. and *L.* [= *T.*] *irritans* n. sp.

1327. RILEY, C. V. *Vanessa antiopa*. <Ent. Mo. Mag., January, 1873, v. 9, p. 195.

Habits and food-plants of *Vanessa antiopa*.

1328. RILEY, C. V. Entomological correction. <Cultivator and Country Gentleman, 6 March, 1873, v. 38, p. 149.

Lema trilineata does not occur in southwestern Missouri, as stated by W. R. Howard.

1329. RILEY, C. V. Fifth annual report on the noxious, beneficial, and other insects of the State of Missouri, made to the State Board of Agriculture, pursuant to an appropriation for this purpose from the legislature of the State. <8th Ann. Rept. State Board of Agric. for 1872, 18 April, 1873, pp. 160+8, 75 figs. Separate: <Jefferson City, Mo., 18 April, 1873, pp. 160+8, 75 figs. Review by A. S. Packard, jr.: <Amer. Nat., August, 1873, v. 7, pp. 471–477, figs. 115–130. Reply to Packard and rejoinder by Packard: <Amer. Nat., March, 1874, v. 8. pp. 181–188.

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NOTE.—Pages 1–44 were also printed as a separate, with title-page cover. <Jefferson City, Mo., 1873. S.-b. No. 19, pp. 150–173.

1330. RILEY, C. V. New York without a State entomologist. <Moore's Rural New Yorker, 5 May, 1873. S.-b. No. 8, p. 103.

Needs of a State entomologist for New York; *Salix humilis* infested with larva of *Plectrodera scalator*.

1331. RILEY, C. V. Tent-caterpillar of the forest. <N. Y. Tribune, 23 May, 1873. S.-b. No. 8, pp. 64–65.

Answer to inquiry of S. T. Gilbert; means against eggs of *Clisiocampa sylvatica* [= *disstria*].

1332. RILEY, C. V. Apple-tree borer. <N. Y. Tribune, 23 May, 1873, S.-b. No. 8, p. 64.

Answer to inquiry of J. Durbin; means against *Saperda bivittata* [= *candida*].

1333. RILEY, C. V. Punctured grape-canes. <N. Y. Tribune, 23 May, 1873. S.-b. No. 8, p. 64.

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1334. RILEY, C. V. The codling-moth. Weir's trap. <Amer. Agric., May, 1873, v. 32, p. 184, figs.

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1335. RILEY, C. V. Influence of extreme cold on the Curculio. <Gardener's Mo. and Hortic., May, 1873, v. 15, pp. 137–139.

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1336. RILEY, C. V. On a new genus in the lepidopterous family *Tineidæ*, with remarks on the fertilization of *Yucca*. <Trans. Acad. Sci. St. Louis, June, 1873, v. 3, pp. 55–64, 2 figs. Reprinted, with omissions and slight changes, from <5th Ann. Rept. State Ent. Mo., 18 April, 1873, pp. 150–160, figs. 74–75. Review by P. C. Zeller: <Verh. k.-k. zool.-bot. Ges. Wien, 1876, Jahrg. 1875, Bd. 25, pp. 340–342. Reply to Zeller: <Trans. Acad. Sci. St. Louis, January–March, 1876, v. 3, pp. 325–326.

Description and figures of *Pronuba* n. g. and of larva and imago of *P. yuccasella* n. sp. See No. 1329 for synopsis of contents.

1337. RILEY, C. V. Supplementary notes on *Pronuba yuccasella*. <Trans. Acad. Sci. St. Louis, June, 1873, v. 3, pp. 178–180, fig. 3. Extract: <6th Ann. Rept. State Ent. Mo., April, 1874, pp. 131–135, fig. 3.

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1338. RILEY, C. V. [To destroy the cotton-worm.] <Ill. Jour. of Agric., June, 1873. Reprint: <Colman's Rural World, 1873; <Rural Alabamian, July, 1873, v. 2, pp. 289–293; <Mobile Register, 1873; <Farmer's Advocate, 1873. Extract: <6th Ann. Rept. State Ent. Mo., 1874, pp. 17–18.

Ravages of *Aletia argillacea* [=*xylina*] in the cotton fields of Southern United States; inefficiency of measures hitherto employed against them; recommends the use of Paris green; directions for its use; natural history, description of egg, larva, and imago of the *Aletia*; hibernation of the imago.

1339. RILEY, C. V. [Imported plants and insects.] <Trans. Acad. Sci. St. Louis, July, 1873, v. 3, pp. 42–43 Proc.

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1340. RILEY C. V. [Mimicry and protective resemblances.] <Trans. Acad. Sci. St. Louis, July, 1873, v. 3, pp. 44–45 Proc.

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1341. RILEY, C. V. [Silk-worms fed with osage orange.] <Trans. Acad. Sci. St. Louis, July, 1873, v. 3, p. 47 Proc.

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1342. RILEY, C. V. [On the cause of deterioration in some of our native grape-vines.] <Trans. Acad. Sci. St. Louis, July, 1873, v. 3, pp. 51–52 Proc.

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1343. RILEY, C. V. [Insects affecting the ailanthus.] <Trans. Acad. Sci. St. Louis, July, 1873, v. 3, pp. 53–54 Proc.

Mentions *Œta compta* [=*punctella*] and *Attacus cynthia*.

1344. RILEY, C. V. [Posthumous papers by B. D. Walsh.] <Trans. Acad. Sci. St. Louis, July, 1873, v. 3, p. 77 Proc.

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1345. RILEY, C. V. [Remarks on *Simulium piscicidium*.] <Trans. Acad. Sci. St. Louis, July, 1873, v. 3, p. 79 Proc.

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1347. RILEY, C. V. [On galls growing on wild sage.] <Trans. Acad. Sci. St. Louis, July, 1873, v. 3, p. 84 Proc.

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1348. RILEY, C. V. [On a larva of *Scenopinus* sp. from the human lungs.] <Trans. Acad. Sci. St. Louis, July, 1873, v. 3, p. 90 Proc.

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1349. RILEY, C. V. Agricultural editorial excursion. <Prairie Farmer, 1873, v. 44: 2 August, p. 241; 9 August, p. 248; 16 August, p. 256; 23 August, p. 265; 30 August, p. 273; 6 September, p. 281. Reprint: <Colman's Rural World, 1873, 2, 9, 16, 23, and 30 August, 6 and 13 September. See: <Colorado Mountaineer, 1 August, 1877. S.-b. No. 14, p. 102.

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1350. RILEY, C. V. Enemies of the elm. <N. Y. Tribune, 7 August, 1873. S.-b. No. 8, pp. 56–57. Reprint: <Gardener's Mo. and Hortic., August, 1876, v. 18, p. 246.

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1351. RILEY, C. V. Entomological information. <N. Y. Tribune, 16 August, 1873. S.-b. No. 8, p. 58.

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1352. RILEY, C. V. "Controlling sex in butterflies." <Amer. Nat., September, 1873, v. 7, pp. 513–521. Separate: <Salem, Mass., August, 1873, pp. 9.

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1353. RILEY, C. V. Cotton caterpillar.—Boll-worm. <Rural Alabamian, October, 1873. S.-b. No. 16, p. 121.

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See No. 1363 for synopsis of contents.

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1356. RILEY, C. V. Hackberry butterflies. Descriptions of the early stages of *Apatura lycaon*, Fabr., and *Apatura herse*, Fabr.; with remarks on their synonymy. <Trans. Acad. Sci. St. Louis, 10 December, 1873, v. 3, pp. 193–208, figs. 3–6. Reprint, with slight changes. <6th Ann. Rept. State Ent. Mo., April, 1874, pp. 136–148, figs. 39–42.

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1357. RILEY, V. C. Economic entomology. <Trans. Kansas State Board Agric. for 1872, 1873, pp. 292–325, 18 figs.

Extract: <Sci. Amer.

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1366. RILEY, C. V. Peach-borers. <N. Y. Tribune, 8 April, 1874. S.-b. No. 10, p. 34.

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1367. RILEY, C. V. Apply soap. <N. Y. Tribune, 8 April, 1874. S.-b. No. 10, p. 34.

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1368. RILEY, C. V. Meadow enemy. <N. Y. Tribune, 8 April, 1874. S.-b. No. 10, p. 34.

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1369. RILEY, C. V. A remedy for the cotton-worm. <N. Y. Tribune, 22 April, 1874. S.-b. No. 10, pp. 25–26. Reprint: <Vicksburg Herald, 1 May, 1874.

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1372. RILEY, C. V. The plum Curculio; natural history and how to catch him. <N. Y. Semi-weekly Tribune, 1 May, 1874. S.-b, No. 10, pp. 18–19; 38–40. Extract: <Cultivator and Country Gentleman, 14 May, 1874, v. 39, p. 310. <New England Farmer, 18 July, 1874, [v. 53,] n. s., v. 29, p. 1. See: <Indust. Record, 5 February, 1875. S.-b. No. 16, pp. 46–48.

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Answer to inquiry of R. H. Day; occurrence of an undescribed *Lecanium* sp.? on the leaves of *Magnolia fuscata*.

1378. RILEY, C. V. Confounding friend with foe. <N. Y. Tribune, 15 July, 1874, 2 figs. S.-b. No. 10, p. 24.

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1379. RILEY, C. V. The Colorado potato-beetle in New York. <N. Y. Tribune, 15 July, 1874. S.-b. No. 10, p. 24.

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1380. RILEY, C. V. Large willow-worm. <N. Y. Tribune, 15 July, 1874. S.-b. No. 10, p. 24.

Answer to letter of J. H. P.; food-plants, habits, and means against *Cimbex laportei* [= *americana*].

1381. RILEY, C. V. Black blister-beetles on potatoes. <N. Y. Tribune, 22 July, 1874. S.-b. No. 10, p. 17.

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1382. RILEY, C. V. Pear-tree slug. <N. Y. Tribune, 22 July, 1874. S.-b. No. 10, p. 17.

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1383. RILEY, C. V. The plug-ugly theory. <N. Y. Tribune, 22 July, 1874. S.-b. No. 10, p. 17.

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1386. RILEY, C. V. On the habits and transformations of *Canthon hudsonias*, Forst.; the common "tumbledung." <Hartford [Conn.] Daily Courant, 18 August, 1874, No. 11162, v. 38, No. 197, p. 2. Reprint: <N. Y. Tribune Extra: Lecture and Letter series, No. 21, August, 1874, pp. 75–76.

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1387. RILEY, C. V. On the larval habits of the cantharid genera *Epicauta* and *Henous*. <Hartford [Conn.] Daily Courant, 18 August, 1874, No. 11162, v. 38, No. 197, p. 2. See: <N. Y. Tribune Extra: Lecture and Letter series, No. 21, August, 1874, p. 76.

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1388. RILEY, C. V. Humming-bird moths caught by the tongue. <Moore's Rural New Yorker, 29 August, 1874, v. 30, p. 140.

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1389. RILEY, C .V. The io moth (*Saturnia io*). <Illust. Journ. Agric., August, 1874, figs.

Answer to inquiry of G. Barter; natural history of *Saturnia* [= *Hyperchiria*] *io*; figures larva and ♂ and ♀ imagos.

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1391. [RILEY, C. V.] [Discussion on entomology.] <Trans. Ill. State Hortic. Soc. for 1873, 1874, n. s., v. 7, pp. 100–104.

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1392. [RILEY, C. V.] Note on leaf-hopper. <Trans. Ill. State Hortic. Soc. for 1873, 1874, n. s., v. 7, p. 138.

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1395. RILEY, C. V. "Walking-sticks or specters" becoming injurious. <N. Y. Weekly Tribune, 11 November, 1874, fig. S.-b. No. 23, p. 103.

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1396. RILEY, C. V. Entomological notes. <Sci. Amer., 5 December, 1874 [v. 45], n. s., v. 31, p. 356.

Pemphigus imbricator found on beech; vesicatory potato-beetles, *Meloidæ*; cow manure and cow urine one of the earliest supposed remedies for *Phylloxera*.

1397. RILEY, C. V. The bark-louse. <Beach, A. E. The Science Record for 1874, N. Y., 1874, p. 356.

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1398. RILEY, C. V. Codling-moth heresies. <N. Y. Tribune, 2 January, 1875. S.-b. No. 13, p. 163.

Criticism of paper of S. B. Peck; *Carpocapsa pomonella* confines its attacks to one apple and does not enter the ground.

1399. RILEY, C. V. Shall we scrape our trees? <N. Y. Tribune, 6 February, 1875. S.-b. No. 10, p. 10.

Careful scraping of trees early in spring is beneficial as a safeguard against the attacks of many injurious insects.

1400. RILEY, C. V. What are army-worms? <N. Y. semi-weekly Tribune, 6 February, 1875.

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1401. RILEY, C. V. The hickory bark-borer, *Scolytus caryæ*. <Colman's Rural World, 6 February, 1875. S.-b. No. 17, p. 105.

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1402. RILEY, C. V. Genuine *vs.* bogus chinch-bugs. <N. Y. Tribune, 10 February, 1875, figs. S.-b. No. 10, p. 10.

Answer to inquiry of C. H. Cushing; food-habits and figures of *Nysius destructor* [=*angustatus*] and *Blissus leucopterus*; larva of *Deilephila lineata* feeds on purslane.

1403. RILEY, C. V. Remedies for Phylloxera. <N. Y. Tribune, 10 February, 1875. S.-b. No. 10, p. 22.

At present no insecticide is effective against *Phylloxera vastatrix*; grafting of more susceptible varieties on the roots of the least susceptible advised.

1404. RILEY, C. V. Newest facts of grape Phylloxera. <N. Y. Tribune, 10 February, 1875. S.-b. No. 10, pp. 21–22.

Succession of different forms of individuals in the cycle of development of *Phylloxera* described; seasons at which the different forms appear; places in which eggs are laid by the winged females.

1405. RILEY, C. V. Is the Colorado beetle poisonous? <N. Y. Weekly Tribune, 17 February, 1875. S.-b. No. 10, p. 9.

Insists upon the poisonous nature of the fumes from scalded or burning masses of *Doryphora decemlineata*, in opposition to statements by Prof. T. J. Burrill.

1406. RILEY, C. V. Notes of Phylloxera. <N. Y. Tribune, 4 March, 1875. S.-b. No. 10, pp. 20–21.

Critical review of A. S. Fuller's "Distribution of the grape-louse;" maintains the specific identity of the so-called gall-inhabiting and root-inhabiting forms of *Phylloxera*, and the North American origin of this insect.

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1409. RILEY, C. V. Description of a new species of *Agrotis*. <Proc. Bost. Soc. Nat. Hist., March, 1875, v. 17, pp. 286–288.

Description of *Agrotis morrisoniana* n. sp. [p. 286].

1410. RILEY, C. V. On the summer dormancy of the larva of *Phyciodes nycteis*, Doubleday, with remarks on the natural history of the species. <Proc. Amer. Assoc. Adv. Sci. for 1874, 4 June, 1875, v. 23, pp. 108–112. Separate: <Salem, Mass., March, 1875, pp. 108–112. Abstract: <Hartford [Conn.] Daily Courant, 18 August, 1874, No. 11162, v. 38, No. 197, p. 2. See: <N. Y. Tribune Extra: Lecture and Letter series, No. 21, August, 1874, p. 75.

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1411. RILEY, C. V. Descriptions of two new moths. <Trans. Acad. Sci. St. Louis, 1 February [March], 1875, v. 3, pp. 240–242, figs. 12–13.

Descriptions and figures of *Xanthoptera* [= *Exyra*] *ridingsii* n. sp. and *Cerura multiscripta* n. sp.

1412. RILEY, C. V. The climate for Doryphora. <N. Y. Tribune, 2 April, 1875. S.-b. No. 10, p. 16.

Comments on letter from D. L. Garver; *Doryphora decemlineata* would be likely to thrive as well in the climates of Europe as in North America; its transportation across the ocean is not improbable.

1413. RILEY, C. V. [On an *Acridium* eaten out by ants.] <Trans. Acad. Sci. St. Louis, 6 April, 1875, v. 3, p. 102 Proc.

Verbal communication; inner soft parts of an *Acridium americanum* eaten out by *Myrmica minuta*.

1414. RILEY, C. V. [On the chrysalis of *Pronuba yuccasella*.] <Trans. Acad. Sci. St. Louis, 6 April, 1875, v. 3, p. 106 Proc.

Verbal communication; adaptation of pupa of *Pronuba yuccasella* to its needs of prying its ways through the soil.

1415. RILEY, C. V. [On regulating sex in insects.] <Trans. Acad. Sci. St. Louis, 6 April, 1875, v. 3, p. 108 Proc.

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1416. RILEY, C. V. [On the peculiarities of *Nephila plumipes*.] <Trans. Acad. Sci. St. Louis, 6 April, 1875, v. 3, p. 109 Proc.

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1417. RILEY, C. V. [On the peculiarities of the Mexican honey-ant.] <Trans. Acad. Sci. St. Louis, 6 April, 1875, v. 3, p. 109 Proc.

Verbal communication; structural and functional division of the neuters of *Myrmecocystus mexicanus* into two distinct kinds.

1418. RILEY, C. V. [On the peculiarities of *Physianthus albens.*] <Trans. Acad. Sci. St. Louis, 6 April, 1875, v. 3, p. 109 Proc.

Verbal communication; the flowers of *Physianthus albens* so constructed as to hold large *Sphingidæ* fast by the tongue.

1419. RILEY, C. V. [On the capture of moths by *Physianthus albens.*] <Trans. Acad. Sci. St. Louis, 6 April, 1875, v. 3, p. 115 Proc. Reprinted, with changes, from <Moore's Rural New Yorker, 29 August, 1874, v. 30, p. 140.

Verbal communication; method of capture of insects, particularly moths, by the flowers of *Physianthus albens*; records the capture of a number of *Noctuidæ* and of *Sphingidæ*, especially *Deilephila lineata*; *Nerium oleander* and *Œnothera grandiflora* are said to capture Sphinx-moths in Europe.

1420. RILEY, C. V. [On the Yucca borer.] <Trans. Acad. Sci. St. Louis, 6 April, 1875, v. 3, p. 139 Proc.

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1421. RILEY, C. V. [New biological facts regarding the grape Phylloxera.] <Trans. Acad. Sci. St. Louis, 6 April, 1875, v. 3, pp. 147–148 Proc.

Sequence of development of certain forms of *Phylloxera*; sexual forms of three species of *Phylloxera* obtained; alleged discovery by J. Lichtenstein of the winged form of *P. vastatrix* on *Quercus coccifera* in Europe, discredited, and this form considered by E. G. Balbiani as a new species, named *P. lichtensteinii*.

1422. RILEY, C. V. [On the connection of locust invasions with the occurrence of drought.] <Trans. Acad. Sci. St. Louis, 6 April, 1875, v. 3, p. 163 Proc.

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1423. RILEY, C. V. Seventh annual report on the noxious, beneficial, and other insects of the State of Missouri, made to the State Board of Agriculture pursuant to an appropriation for this purpose from the legislature of the State. <10th Ann. Rept. State Board of Agric. for 1874, April, 1875, pp. 7 + 196 + 4, 40 figs. Separate: <Jefferson City, Mo., April, 1875, pp. 7 + 196 + 4, 40 figs.

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Figure of the larva-case of an undetermined species of *Psychidæ* and of the several stages of *Thyridopteryx ephemeræformis*; habits of and means against the latter.

1425. [RILEY, C. V.] [Poisonous qualities of the Colorado potato-beetle.] <N. Y. Tribune, 14 April, 1875. S.-b. No. 10, p. 17, 34.

Mentions instances of poisoning from the fumes given out by scalded or crushed masses of *Doryphora decemlineata*.

1426. [RILEY, C. V.] Cure for canker-worm. <N. Y. Tribune, 21 April, 1875. S.-b. No. 10, p. 25.

Paris green recommended for destruction of canker-worms when other remedies are lacking. Paris green not to be used against all insects.

1427. [RILEY, C. V.] Paris green: Its effects on plants and soils, and through them on man. <N. Y. Tribune, 12 May, 1875. S.-b. No. 10, pp. 15–16; 34–35.

Paris green is not injurious to plants or the soil, nor dangerous to man when properly applied.

1428. [RILEY, C. V.] Swellings on roots of *Ampelopsis*. <Colman's Rural World, 5 June, 1875. S.-b. No. 10, p. 1.

Answer to letter of H. Hilker; swellings on roots of *Ampelopsis* possibly occasioned by root-lice, but not by *Phylloxera*.

1429. RILEY, C. V. Apple-tree plant-lice. <Colman's Rural World, 5 June, 1875.

Answer to letter of A. Moyer; occurrence of and means against *Aphis mali*.

1430. RILEY, C. V. [*Torrubia elongata*, the white-grub fungus.] <Colman's Rural World, 12 June, 1875, v—, p—.

Torrubia elongata proposed as the name for the white-grub fungus; figures of the same.

1431. RILEY, C. V. The Colorado potato-beetle, *Doryphora decemlineata*. <Garden [London], 24 July, 1875, v. 8, pp. 71–72, 5 figs. S.-b. No. 23, p. —.

Description and figures of all stages of *Doryphora decemlineata* and *D. juncta*; migrations, habits, prolificacy, enemies, and parasites of *D. decemlineata*; means against it; the use of Paris green; probability and probable method of its introduction into Europe and means of preventing such introduction; figures *Lydella* [= *Exorista*] *doryphoræ*, *Harpactor* [= *Milyas*] *cinctus*, *Arma* [= *Podisus*] *spinosus*, and *Hippodamia convergens*.

1432. RILEY, C. V. Locusts *vs.* chinch-bugs. <N. Y. Tribune, 4 August, 1875. S.-b. No. 10, p. 40.

Locust ravages are likely to prevent serious injury by *Blissus leucopterus*; the latter more noticeable than usual; excessive rains in 1875, also unfavorable to the development of *Blissus leucopterus*.

1433. RILEY, C. V. No locust injury in Kansas and Missouri this fall. <N. Y. Tribune, 1 September, 1875. S.-b. No. 10, p. 166.

Predicts immunity from attacks of *Caloptenus spretus* in the fall of 1875 in Kansas and Missouri.

1434. RILEY, C. V. Prof. Riley and the locusts. <St. Louis Daily Globe-Democrat, 4 September, 1875, v. 1, No. 108, p. 3. S.-b. No. 10, pp. 158–159.

Reply to C. A. Davis's "Prof. Riley and the locusts;" food-plants, habits, parasites, and period of development of *Caloptenus spretus*; need of more extended investigation of this insect in its native haunts and breeding places.

1435. RILEY, C. V. The grape-leaf gall. <Cultivator and Country Gentleman, 9 September, 1875, v. 40, p. 567.

Identity of the root and leaf-forms of *Phylloxera vastatrix*.

1436. RILEY, C. V. White-grub fungus. <N. Y. Tribune, 6 October, 1875. S.-b. No. 10, p. 26.

Answer to inquiry of A. C. G.; brief history of *Torrubia elongata*, a parasite of *Lachnosterna fusca*.

1437. RILEY, C. V. Flying locusts in Illinois. <Cultivator and Country Gentleman, 28 October, 1875, v. 40, p. 679.

Caloptenus spretus confounded with *C. femur-rubrum* by B. F. J.; *C. spretus* does not occur in Illinois.

1438. RILEY, C. V. Remarks on canker-worms and description of a new genus of *Phalænidæ*. <Trans. Acad. Sci. St. Louis, 5 November, 1875, v. 3, pp. 273–280, figs. 14–21. Separate: <St. Louis, Mo., 1875, pp. 8, figs. Reprint: <8th Ann. Rept. State Ent. Mo., May, 1876, pp. 12–18, figs. 3–10. Notice: <Ca. Ent., November, 1875, v. 7, p. 219. <Proc. Bost. Soc. Nat. Hist., February, 1876, v. 18, p. 201.

Treats of *Paleacrita* [n. g.] *vernata* and *Anisopteryx pometaria*; see No. 1482 for synopsis of contents.

1439. RILEY, C. V. Notes on the natural history of the grape Phylloxera, *Phylloxera vastatrix*, Planchon. <Trans. Acad. Sci. St. Louis, 5 November, 1875, v. 3, pp. 281–287, fig. 22. Extract: <Amèr. Nat., June, 1881, v. 15, pp. 483–484.

Discovery of the nidus in which eggs are deposited by the winged female of *Phylloxera vastatrix*; development, habits, description, and figures of the same; description of the male and of the impregnated egg; figure of the male of *P. caryæcaulis*; summary of the natural history of *P. vastatrix*.

1440. [RILEY, C. V.] Grubs and guess-work. <N. Y. Semi-weekly Tribune, 12 November, 1875. S.-b. No. 10, pp. 17–18.

Characterizes some subdivisions of the *Lamellicornia* by their habits; contrasts the larvæ, imagos, and habits of *Lachnosterna quercina* [=*fusca*] and *Lygyrus relictus*; means against the former.

1441. R[ILEY], C. V. Entomological. Apple-tree borers; timber encourages them; new bag-worm. <Colman's Rural World, 13 November, 1875. S.-b. No. 10, p. 188.

Timber-trees near apple orchards increase the likelihood of the attacks of *Saperda bivittata* [=*candida*] upon the apple-trees; habits and food-plants of *Psyche confederata*.

1442. RILEY, C. V. The army-worm; an important point yet to ascertain in its history. How it comes and goes; its natural enemies; preventive measures. <N. Y. Tribune, 16 November, 1875, 8 figs. S.-b. No. 10, pp. 29–31; 31–33.

Various applications of the name "army-worm;" seasons, habits, and natural enemies of and means against *Leucania unipuncta*; supposed method of oviposition; figures of it in its several stages, of *Exorista flavicauda*, *Microgaster* [=*Apanteles*] *militaris*, *Ophion purgatum*, and *Pezomachus minimus*, and of cocoons of the last; habits of these parasites.

1443. RILEY, C. V. The flying locusts in Illinois. <Cultivator and Country Gentleman, 25 November, 1875, v. 40, p. 744.

Extent of swarms flying south over Kansas and Nebraska on September (4th?).

1444. R[ILEY], C. V. Scabby potatoes. <N. Y. Tribune, 15 December, 1875. S.-b. No. 10, pp. 20, 29.

The scab in potatoes is caused by imperfectly studied *Acarina*.

1445. [RILEY, C. V.] Not the Hessian-fly. <N. Y. Tribune, 15 December, 1875. S.-b. No. 10, pp. 20, 29.

Answer to inquiry of J. H. K.; significance of the name and habits of *Aphodius inquinatus*.

1446. R[ILEY], C. V. How to destroy locusts. <Colman's Rural World, 23 December, 1875. S.-b. No. 10, p. 185.

Answer to letter of C. Herschel; means against *Acrididæ*; recommends flooding and ditching.

1447. RILEY, C. V. Paris green as an insect destroyer. <N. Y. Tribune, 28 December, 1875. S.-b. No. 10, pp. 13–14; 28–29.

Paris green as a means against *Doryphora decemlineata*; R. C. Kedzie's investigations show that Paris green is not deleterious to the soil or the crops.

1448. RILEY, C. V. Oak apple. <Amer. Cyclopædia, 1875, v. 12, pp. 558–559, 3 figs. S.-b. No. 14, pp. 47–48.

Description of galls of *Cynips terminalis*, *C.* [=*Amphibolips*] *quercus-spongifica*, and *C.* [=*A.*] *q.-inanis*; manner of their formation; figures the latter two galls and a parent fly; nature of galls and problems involved in their study.

1449. [RILEY, C. V.] Phylloxera. <Amer. Cyclopædia, 1875, v. 13, pp. 477–480, figs. 1–8. S.-b. No. 10, pp. 84–87.

Habits, food-plants, and characters of the genus *Phylloxera*; natural history of *P. vastatrix*; figures its several forms and the galls formed by it; history of the ravages in the vineyards of France.

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2. Rose-chafer; answer to letter of I. M. H.; means against *Macrodactylus subspinosus*.

3. Bark-louse; answer to letter of J. L. K.; seasons and ravages of and means against *Mytilaspis pomicorticis* [=*pomorum*].

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1587. RILEY, C. V. Fighting the Hessian-fly. <N. Y. Tribune, 18 July, 1877. S.-b. No. 14, pp. 232–233. Reprint: <Colman's Rural World, 5 December, 1877. S.-b. No. 14, pp. 268–269.

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1589. RILEY, C. V. In reference to wheat-worms. <Prairie Farmer, 11 August, 1877. S.-b. No. 14, p. 127; No. 20, p. 86.

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1593. [RILEY, C. V.] Mistaken identity. <N. Y. Tribune, 12 September, 1877. S.-b. No. 14, p. 233.

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1594. RILEY, C. V. Injured orchard. <N. Y. Tribune, 12 September, 1877. S.-b. No. 14, p. 233.

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1600. RILEY, C. V. On the larval characters and habits of the blister-beetles belonging to the genera *Macrobasis* Lec. and *Epicauta* Fabr.; with remarks on other species of the family *Meloidæ*. <Trans. Acad. Sci. St. Louis, 5–16 November, 1877, v. 3, pp. 544–562, figs. 35–39; figs. 1–12 of pl. 5 with 1 p. expl. of pl. Separate: <[St. Louis, Mo., 1877], pp. 1–19, figs. 35–39; figs. 1–12 of pl. 5 with 1 p. expl. of pl. Abstract: <Sci. Amer., 1877 [v. 51], n. s., v. 37; 1 December, p. 346; 15 December, p. 373; 404 il. S.-b. No. 14, pp. 272–275. <Ent. Mo. Mag., January, 1878, v. 14, pp. 169–175. Reprint, with changes and omissions: <Amer. Nat., 1878, v. 12; April [19 March], pp. 213–219, figs. 1–2; May [22 April], pp. 282–290, figs. 3–5, pl. 1 with 1 p. expl. of pl. Separate: <Boston: 1878, pp. 213–219; 282–290; pl. 1 with 1 p. expl. of pl.

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1678. RILEY, C. V. Notes on the *Aphididæ* of the United States, with descriptions of species occurring west of the Mississippi. <Bull. U. S. Geol. and Geog. Surv. Terr., 28 February, 1879, v. 5, pp. 1–32, pl. 1–2, with 2 pp. expl. of pl. Separate: <Washington, 22 January, 1879, 32 pp., 2 pl., with 2 pp. expl. of pl. Abstract: <Sci. News, 15 April, 1879, v. 1, pp. 184–186.

Part 1, pp. 1–17, by C. V. Riley, entitled "Biological notes on the *Pemphiginæ*, with descriptions of new species;" history and description of *Schizoneura americana* n. sp. [p. 4], *Colopha ulmicola*, *Pemphigus populi-monilis* n. sp. [p. 13], *P. populi-transversus* n. sp. [p. 15], *P. p.-ramulorum* n. sp. [p. 16], *P. acerifolii* n. sp. [p. 16], *P. fraxinifolii* n. sp. [p. 17], and *Hormaphis spinosus*.

Part 2, pp. 18–32, by J. Monell, entitled "Notes on *Aphidinæ*, with descriptions of new species." Describes nine (9) new species of *Siphonophora*, five (5) of *Aphis*, two (2) of *Rhopalosiphum*, nine (9) of *Callipterus*, three (3) of *Chaitophorus*; description of other species of these genera and of *Drepanosiphum* and the genera above named; synoptic tables of some of the species.

1679. [RILEY, C. V.] [Plant-lice on potatoes.] <N. Y. Tribune, 12 February, 1879. S.-b. No. 23, p. 109.

Aphididæ reputed injurious to potato plants, probably *Aphis solani*.

1680. RILEY, C. V. Missouri entomological reports. <Colman's Rural World, 19 February, 1879. S.-b. No. 23, p. 102.

Proposal for republication of the reports of the State entomologist of Missouri; reasons for the non-publication of a tenth report; sketch of what that report would have contained.

1681. RILEY, C. V. Entomological notes. The chinch-bug. <Farmer's Review. February, 1879, 2 figs. S.-b. No. 23, pp. 111–112.

Figures of all stages, ravages, natural history, and means against *Blissus leucopterus*; its method of hibernation, and the effect of weather upon it.

1682. RILEY, C. V. Notes on the apple-worm. <Colman's Rural World, 5 March, 1879. S.-b. No. 23, p. 102. Reprint with slight changes: <Amer. Nat., August [July], 1879, v. 13, pp. 523–524. <Ann. Rept. [U. S.] Commissioner Agric. for 1878, 22 November, 1879, pp. 238–239.

See No. 1721 for synopsis of contents.

1683. RILEY, C. V. The rice-weevil. Serious injury to stored and to cribbed corn. <Farmer's Review, March, 1879, fig. S.-b. No. 23, p. 99; 112.

Figures larva, pupa, and imago of *Calandra oryzæ* and imago of *C. granaria*; habits, ravages, and means against the same; description of egg and method of oviposition of *C. oryzæ*; use of carbon bisulphide against these insects; poisonous effects of eating the comminuted beetles.

1684. RILEY, C. V. [Letter to W. G. Le Duc.] <Boston Daily Herald, 4 April, 1879. <Psyche Advertiser, 11 April, 1879, v. 2, p. 9. <Ent. Nach., 1 July, 1879, jahrg. 5, p. 177.

The reason for which the author resigned as entomologist of the U. S. Department of Agriculture was not ill-health.

1685. RILEY, C. V. Preventing rot in plums. <N. Y. Tribune, 9 April, 1879. S.-b. No. 23, p. 110; 129.

Trapping and jarring recommended as a means against *Conotrachelus nenuphar*.

1686. [RILEY, C. V.] A new insect pest. <Colorado Farmer, 10 April, 1879, v. 12, No. 15, p. 6. S.-b. No. 23, p. 108.

Injury to orchards and ornamental trees in California by *Dorthesia* [*characias*?], introduced from Australia; ravages of *D. characias* in southern Africa; prospective ravages in California; means against it.

1687. RILEY, C. V. The nervous system and salivary glands of Phylloxera. <Psyche, 11 April, 1879, v. 2, pp. 225–226.

Correctness of E. L. Mark's conclusion that the author had mistaken nerve cords for tracheæ; dissent from M. Cornu's view that the root swellings caused by *Phylloxera* are due to mechanical action of the puncture and the subsequent absorption of liquids; swelling considered to be caused by the introduction of a salivary secretion.

1688. RILEY, C. V. Mr. Henderson's experiments. <Gardener's Mo. and Hortic., April, 1879, v. 21, pp. 120–121. S.-b. No. 23, p. 107.

Review of P. Henderson's "Carnivorous plants;" believes that *Dionæa* and *Drosera* are nourished by the insects digested by their leaves.

1689. RILEY, C. V. The migrations and hibernation of *Aletia argillacea*. <Washington [D. C.] World, 10 May, 1879. <Science News, 1 June, 1879, v. 1, pp. 230–232. S.-b. No. 23, pp. 119–120. <Sci. Amer., 14 June, 1879 [v. 54], n. s., v. 40, p. 375. <Galveston [Tex.] Daily News, 24 October, 1879, v. 38, p. 2.

1689. RILEY, C. V.—Continued.
S.-b. No. 23, pp. 166–167, No. 42, pp. 38–39. Abstract: <Amer. Nat., November [25 October], 1879, v. 13, p. 726. <Farmer's Review, September, 1879. S.-b. No. 23, p. 108.
Ravages of insects, particularly of *Aletia argillacea* [= *xylina*] in the United States; hibernation theories; author's belief in the probable hibernation of the moth in the southern parts of the cotton belt; species mistaken for *Aletia*; description and food-plants of *Aspila virescens*.

1690. RILEY, C. V. Insects affecting clover. <N. Y. Tribune, 14 May, 1879. S.-b. No. 23, p. 90; 97; 129.
Habits, ravages of and means against *Hylesinus trifolii* and *Cecidomyia leguminicola*; prior observations upon the same; characters distinguishing *C. leguminicola* from *C.* [= *Diplosis*] *tritici* and *C. destructor*.

1691. RILEY, C. V. [*Œcanthus niveus.*] <N. Y. Tribune, 14 May, 1879. S.-b. No. 23, p. 95; 98.
Occurrence of eggs of *Œcanthus niveus* in twigs of apple, raspberry, grape, and other plants; slight injuries to be expected from the same; means against them.

1692. [RILEY, C. V.] Insect powders and their use. <N. Y. Tribune, 14 May, 1879. S.-b. No. 23, p. 95; 96; 130–131.
Abstract of W. Saunders' "Insect powder," with additions; differences between Persian and Dalmatian insect powder; methods of using them against insects.

1693. [RILEY, C. V.] The grasshopper prospect. <N. Y. Tribune, 14 May, 1879. S.-b. No. 23, p. 98.
Prospect of injuries by *Caloptenus spretus* in 1879; a new species injurious in the Sierra Valley of California.

1694. RILEY, C. V. The westward progress of the imported cabbage-worm. <Amer. Nat., June [20 May], 1879, v. 13, p. 393. See: <Colorado Farmer, 10 April, 1879. S.-b. No. 23, p. 108. <Farmer's Review, April, 1879. S.-b. No. 22, p. 64. <Colman's Rural World, 1879. S.-b. No. 23, p. 108. <Ann. Rept. [U. S.] Commissioner Agric. for 1878, 22 November, 1879, p. 239.
Spread of *Pieris rapæ* into Illinois and Missouri; means against the same.

1695. [RILEY, C. V.] Lures for moths. <N. Y. Tribune, 28 May, 1879. S.-b. No. 23, p. 95.
Trapping *Carpocapsa pomonella* in shallow dishes of sweetened liquid more harmful than beneficial, as many useful insects are destroyed; the method serviceable against *Heliothis armigera*.

1696. [RILEY, C. V.] The currant-worm. <N. Y. Tribune, 11 June, 1879. S.-b. No. 23, p. 106.
Description, habits, distribution, and spread of and means against *Nematus ventricosus* [= *ribesii*]; methods of using hellebore.

1697. [RILEY, C. V.] Sweet-potato beetle. <N. Y. Tribune, 11 June, 1879. S.-b. No. 23, pp. 106—107; 131.
Description of all stages, habits, food plants, and means against *Coptocycla* [= *Cassida*] *nigripes*.

1698. RILEY, C. V. [The seventeen year Cicada.] <N. Y. Tribune, 1879. Reprint: <Colman's Rural World, 25 June, 1879. S.-b. No. 23, p. 152.

Boundaries of the areas in which *Cicada* [= *Tibicen*] *septendecim* is expected to occur in 1879; request for information of its appearance.

1699. RILEY, C. V. The imported carpet-beetle, *Anthrenus scrophulariæ*, L. <Farmer's Review, 1879, fig. S.-b. No. 23, pp. 96–98. Extract: <Amer. Ent., March, 1880 [v. 3], n. s., v. 1, p. 54.

Letter of J. H. Parsons, with answer; description of larva and imago of *Anthrenus scrophulariæ*; its history, habits, ravages, and means against them; figures larva, pupa, and imago.

1700. [RILEY, C. V.] The cheese-skipper. <N. Y. Tribune, 2 July, 1879. S.-b. No. 23, p. 93. Notice: <Farmer's Review, 7 September, 1879. S.-b. No. 23, p. 103.

Description of larva, pupa, and imago, habits and means against *Piophila casei*.

1701. RILEY, C. V. The thick-thighed walking-stick. <Sci. Amer., 5 July, 1879 [v. 55], n. s., v. 41, pp. 7–8, fig. S.-b. No. 23, p. 121. Reprint, with slight changes: <Ann. Rept. [U. S.] Commissioner Agric. for 1878, 22 November, 1879, pp. 241–245, pl. 3.

Treats of *Diapheromera femorata*. See No. 1721 for synopsis of contents.

1702. RILEY, C. V. The cotton-worm. <Mobile Register, 9 July, 1879. S.-b. No. 68, p. 204. See: <Colorado Citizen, 17 July, 1879. S.-b. No. 23, p. 91. <Galveston News, 19 July, 1879. S.-b. No. 23, p. 93.

Remarks at the Cotton Exchange about prospective injuries from *Aletia argillacea* [= *xylina*]; sudden appearance and means against the same; more injurious in wet than dry weather.

1703. RILEY, C. V. Other insects affecting cheese. <N. Y. Tribune, 9 July, 1879. S.-b. No. 23, p. 92. Reprint: <Amer. Dairyman. <Western Rural, 9 August, 1879, v. 17, No. 32, p. 250. S.-b. No. 23, p. 92.

Habits and transformations of *Tyroglyphus siro*, *Corynetes* [= *Necrobia*] *rufipes*, and *Dermestes lardarius*; tenacity of life of the *Tyroglyphus* and assumption of *Hypopus* form by the same; anecdote of Latreille; injury done in cheese by *Musca corvina*.

1704. RILEY, C. V. Pupation of the *Nymphalidæ*. Abstract: <Psyche, 11 July, 1879, v. 2, pp. 249–251.

Notice of prevalent explanations of the manner in which suspended pupa of Lepidoptera support themselves while shedding the larval skin; explanation of the process in *Vanessa antiopa* and *Paphia glycerium*.

1705. RILEY, C. V. Fire-flies. <Sci. Amer., 26 July, 1879 [v. 55], n. s., v. 41, p. 49. S.-b. No. 23, p. 104.

Definition of "Fire-flies;" description of larva, pupa, and imago of *Photinus pyralis*; *Photuris pennsylvanicus*, the commonest species in the more northern states; absence or imperfect development of wings in certain female *Lampyridæ*.

1706. RILEY, C. V. Grape-scale insect, new species. <Pacific Rural Press, 16 August, 1879. S.-b. No. 32, p. 66.

Answer to inquiry of editor of Press; a new coccid, allied to *Pulvinaria vitis*.

1707. RILEY, C. V. Dragon-flies. <Sci. Amer., 23 August, 1879 [v. 55], n. s., v. 41, p. 113. S.-b. No. 23, p. 100.

Description and natural history of *Libellulidæ*.

1708. RILEY, C. V. Failure of tea roses. Habits of Fuller's rose beetle, *Aramigus fulleri* Horn. <Sci. Amer., 30 August, 1879 [v. 55], n. s., v. 41, p. 129, fig. S.-b. No. 23, pp. 114–116. Reprint: <Gardener's Mo. and Hortic., October, 1879, v. 21, pp. 310–311, fig. S.-b. No. 23, pp. 126–127. Reprint, with additions: <Ann. Rept. [U. S.] Commissioner Agric. for 1878, 22 November, 1879, pp. 255–257, pl. 17, f. 2.

See No. 1721 for synopsis of contents.

1709. RILEY, C. V. The "Devil's darning needle." <Sci. Amer., 6 September, 1879 [v. 55], n. s., v. 41, p. 148. S.-b. No. 23, p. 104. Review: <Sci. Amer., 27 September, 1879 [v. 55], n. s., v. 41, p. 194. S.-b. No. 23, p. 103½.

Diapheromera femorata winters in the egg-state; W. J. McGee confounds the above with a species of *Ranatra*; the term "Devil's darning needle" mostly associated in the popular mind with the dragon-flies (*Libellulidæ*).

1710. [RILEY, C. V.] The red-spider on roses. <Sci. Amer., 13 September, 1879 [v. 55], n. s., v. 41, p. 161. S.-b. No. 23, pp. 116–117.

Nature, ravages, and means against *Tetranychus telarius*; habits and transformations of *Acarina*.

1711. RILEY, C. V. Philosophy of the pupation of butterflies. <Sci. Amer. Suppl. No. 193, 13 September, 1879, p. 3069, 3 figs. S.-b. No. 23, p. 125. Reprint: <Science News, 15 September, 1879, v. 1, pp. 346–350. Reprint with changes: <Nature, 16 October, 1879, v. 20, pp. 594–595. <Kosmos, January, 1880, bd. 6, pp. 313–318. <Proc. Amer. Assoc. Adv. Sci. for 1879, 1880, v. 28, pp. 455–463, figs. <Separate: Salem, Mass., July, 1880, 9 pp., 6 figs. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, pp. 162–167, figs. 65–70. Abstract: <The Field Nat. and Sci. Student, January, 1883, pp. 179–180. S.-b. No. 42, p. 1. <Bull. Philos. Soc. Wash., 1879, v. 3, pp. 41–43.

Illustrates the prevalent explanation of the manner in which suspended chrysalids become attached to their supports; describes and illustrates the more correct process; structure of the terminal joint of the chrysalis especially in *Vanessa antiopa*, *Terias* sp., *Danais archippus*, and *Paphia glycerium*.

1712. RILEY, C. V. Parasites of the cotton-worm. <Ca. Ent., September, 1879, v. 11, pp. 161–162.

List of parasites of *Aletia argillacea* [=*xylina*]; descriptions of *Trichogramma pretiosa* n. sp. [p. 161], *Cirrospilus* [= *Tetrastichus*] *esurus* n. sp. [p. 162], and *Tachina aletiæ* n. sp. [p. 162].

1713. RILEY, C. V. [Insect injurious to junipers.] <Ca. Ent., September, 1879, v. 11, p. 177.

Junipers on Long Island injured by *Dapsilia rutilana*.

1714. RILEY, C. V. The imported cabbage-worm in the South. <Farmer's Review, September, 1879. S.-b. No. 23, p. 106.

Spread of *Pieris rapæ* westward and southward; its present distribution; southern limit of distribution of *Doryphora 10-lineata*.

1715. RILEY, C. V. The shedding of the tracheæ and double cocoons. <Amer. Nat., October, 1879, v. 13, p. 652.

Review of two notes by E. Potts.

1716. RILEY, C. V. Leaf-galls on the grape-vine. <N. Y. Tribune, 1 October, 1879. S.-b. No. 23, pp. 117; 173. See: <Kansas Farmer, 26 November, 1879. S.-b. No. 26, p. 9. <West. Rural, 10 December, 1879.

Habits, ravages, reproduction, and distribution of *Phylloxera vastatrix*.

1717. RILEY, C. V. The Croton bug as a library pest. <Library Journal, September–October, 1879, v. 4, p. 376.

Letter to Weston Flint; ravages of and means against *Blatta* [=*Ectobia*] *germanica*.

1718. RILEY, C. V. The Ailanthus silk-worm, *Attacus* (*Samia*) *cynthia*. <Science News, 15 October, 1879, v. 1, pp. 377–383. Extract: <Amer. Ent., March, 1880 [v. 3], n. s., v. 1, pp. 56–58, fig. 16. <Farmer's Review, 8 January, 1880, v. 4. S.-b. No. 23, pp. 167–168.

Description of eggs, larvæ, and imagos of *Samia* [=*Attacus*] *cynthia*; history, food-plants, acclimation, and artificial rearing of the same, and of *Samia* [=*Attacus*] *ricini*; differences between the eggs, larvæ, and cocoons of the two species; availability of these and other species for silk-culture; superiority of *Sericaria mori* for this purpose; occurrence of parthenogenesis and of retardation of development in *Bombycidæ*.

1719. RILEY, C. V. The cotton-worm. Letter from Prof. C. V. Riley on some recent cotton-worm articles in the News. <Galveston [Tex.] Daily News, 24 October, 1879, v. 38, No. 185, p. 2. S.-b. No. 23, pp. 164–165. Reply: <*Ibid.*, 31 October, 1879, No. 191, p. 4.

Critical review of W. J. Jones's "The cotton caterpillar," and of Investigator's "The cotton-worm;" denies that *Aletia argillacea* [=*xylina*] hibernates in the pupa state; author not interested in entomological discoveries for mercenary ends.

1720. RILEY, C. V. [Spread of *Pieris rapæ* into Alabama.] <Ca. Ent., October, 1879, v. 11, p. 196.

Pieris rapæ now quite common in Alabama; it has reached Selma but not Mobile.

1721. RILEY, C. V. Report of the entomologist. <Ann. Rept. [U. S.] Commissioner Agric. for 1878, 22 November, 1879, pp. 207–257, + 1 p. expl. of pl., pls. 1–7. Separate: <Washington, Octo-

1721. RILEY, C. V.—Continued.

ber, 1879, pp. 52 + 1 p. expl. of pl., 7 pl. Notice: <Gardener's Mo. and Hortic., November, 1879, v. 21, pp. 349–350. S.-b. No. 23, p. 29.

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* Translation: <Acker- und Gartenbau-Zeitung, 1 June, 1880, v. 11, p. 87, fig. S.-b. No. 23, p. —.

1721. RILEY, C. V.—Continued.

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1722. RILEY, C. V. [Parasites bred from the cotton-worm.] <Ca. Ent., November, 1879, v. 11, p. 205.

Nine species of parasites have been bred from *Aletia argillacea* [= *xylina*].

1723. RILEY, C. V. The bee-moth. <N. Y. Tribune, 1879. Reprint: <Farmer's Review, 3 January, 1880. S.-b. No. 23, p. 158.

Description of larva and imago, habits, ravages, and means against *Galleria cereana*.

1724. RILEY, C. V. The silk-worm; being a brief manual of instructions for the production of silk. <Special Report No. 11 [U. S.], Dept. Agric., Washington, 1879, pp. 31, 8 figs. Second edition: <Washington, 1882, 37 pp., 8 figs. Third edition: <Washington, 1883, 37 pp., 8 figs. Fourth edition: Fifth edition: Sixth edition: <Bull. No. 9 Div. Ent. U. S. Dept. Agric., 11 July, 1886, 65 pp., 29 figs., 2 pl. Seventh edition: <*Ibid.*, April, 1888.

Treats of *Sericaria mori*. See No. 1721 for synopsis of contents.

1725. RILEY, C. V. London purple as an insecticide. <Farmer's Review, 29 January, 1880, v. 4, No. 5, p. —.

1726. [RILEY, C. V.] [The food-habits of thrushes.] <Amer. Ent., January, 1880 [v. 3], n. s., v. 1, pp. 2–3.

Notice of S. A. Forbes' "The food-habits of thrushes;" incompleteness of our knowledge of the food-habits of birds and of *Carabidæ*; author's opinion favorable to the birds.

1727. [RILEY, C. V.] The grape Phylloxera in California. <Amer. Ent., January, 1880 [v. 3], n. s., v. 1, p. 3.

Phylloxera vastatrix as destructive to *Vitis vinifera* in California as in Europe; the winged female supposed not to have appeared yet in California; speculations upon this modification of habit, if true.

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* Translation: <Acker- und Gartenbau-Zeitung, 1 August, 1880, v. 11, p. 119, 2 figs. S.-b. No. 23, p. —. Extract: <Prairie Farmer, 22 November, 1879, v. 50, p. 370. S.-b. No. 23, pp. 168–169. <Amer. Rural Farmer, 18 December, 1879. S.-b. No. 45, pp. 23–24.

† Translation: <Acker- und Gartenbau-Zeitung, 1 September, 1880, v. 11, p. 135, fig. S.-b. No. 23, p. 182.

1728. [RILEY, C. V.] On the hibernation of the cotton-worm, *Aletia argillacea* Hübn. <Amer. Ent., January, 1880 [v. 3], n. s., v. 1, pp. 6–11, figs. 3–5; p. 15.

Advance print from Bull. No. 3 U. S. Ent. Commission, pp. 24–31. See No. 1736 for synopsis of contents.

1729. [RILEY, C. V.] [Inquilines in galleries of the common white-ant.] <Amer. Ent., January, 1880, [v. 3], n. s., v. 1, p. 15.

Trichopsenius depressus and three undescribed *Aleocharini* found inquilinous in galleries of *Termes flavipes* in Texas by E. A. Schwarz; the *Trichopsenius* previously known by a single specimen from Georgia.

1730. [RILEY, C. V.] Large white scale on acacias, etc. <Amer. Ent. January, 1880 [v. 3], n. s., v. 1, p. 20.

Occurrence and ravages of *Dorthesia characias*? in California and southern Africa; characters of the insect.

1731. [RILEY, C. V.] [Ravages of moths in cushions.] <Amer. Ent., January, 1880 [v. 3], n. s., v. 1, p. 20.

Conclusions of discussion by German Society of Railway Companies as to the best method of preventing the ravages of moths in the cushions of railway carriages.

1732. [RILEY, C. V.] [Grape Phylloxera in Geelong, Victoria.] <Amer. Ent., January; 1880 [v. 3], n. s., v. 1, p. 20.

Occurrence of *Phylloxera vastatrix* in Geelong, Victoria.

1733. RILEY, C. V. Borers in black-ash: Fall web-worm: Apple-tree insects. <Amer. Ent., January, 1880 [v. 3], n. s., v. 1, pp. 22–23.

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Answer to communication from E. A. Smith; hams injured by larvæ of *Piophila casei*; means against these and other insects injuring hams.

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Date and manner of first appearance of larvæ of *Aletia argillacea* [=*xylina*]; number of annual generations and the existence of parasites upon it; his-

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tory and refutation of the annual immigration theory; division of the cotton belt into regions wherein, respectively, *A. argillacea* [=*xylina*] is permanent and temporary; food-habits and enemies of the same.

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Review of paper by G. Macloskie.

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Report of meeting of the Entomological Society of London; length of proboscis of and presence of scent organ in *Sphingidæ*; perception of colors in *Rhopalocera*; secondary sexual character in *Callidryas* and other genera; according to R. Meldola the proboscis of *Macrosila cluentius* is 23.5^{cm} (9¼ inches) long.

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Notice of an unsuccessful attempt to increase the product of an apiary by floating it southward late in the season and back to the north in the spring, on the Mississippi River.

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Review of paper by H. A. Hagen; *Cecidomyia destructor* less injurious than formerly in the older wheat-growing regions, its area of abundance having moved westward with the westward extension of wheat culture.

1788. [RILEY, C. V.] Raspberries destroyed by weevils. <Amer. Ent., May, 1880 [v. 3], n. s., v. 1, p. 127.

Ravages of *Otiorhynchus picipes* in England; warning against its introduction into the United States.

1788*a*. [RILEY, C. V.] Cotton culture and the insects affecting the plant at Bahia, Brazil. <Amer. Ent., May, 1880 [v. 3], n. s., v. 1, pp. 128–129.

Letter of R. A. Edes, with remarks on specimens sent.

1789. [RILEY, C. V.] Hemispherical larva at bottom of ant hill. <Amer. Ent., May, 1880 [v. 3], n. s., v. 1, p. 129.

Answer to inquiry of D. S. Sheldon; habitat of larva of *Microdon globosus*.

1790. [RILEY, C. V.] Chrysalides dug up in cotton field, mistaken for those of the cotton-worm. <Amer. Ent., May, 1880 [v. 3], n. s., v. 1, p. 129.

Answer to letter of R. Worrel.

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Answer to letter of S. A. Conrad; description of all stages of *Aleurodes* sp. from leaves of *Oxalis* sp.

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Answer to inquiry of S. A. Forbes; two coleopterous larvæ from the stomach of *Micropterus salmoides*; one a dytiscid, the other perhaps a dascyllid.

1793. [RILEY, C. V.] Insects from stomach of rock-bass. <Amer. Ent., May, 1880 [v. 3], n. s., v. 1, p. 130.

Answer to letter of S. A. Forbes; coleopterous larva from the stomach of common sun-fish (*Lepiopomus pallidus*) and rock-bass (*Roccus lineatus*).

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Answer to letter of D. Th.; ravages of *Ligyrus rugiceps* upon sugar-cane, maize, and grasses; recommends use of lamp and kerosene pan, and figures one form of such apparatus.

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Answer to letter of W. S. Barnard; quotes from 3d Ann. Rept. State Ent. Mo., pp. 24–26; habits of *Sigalphus curculionis*; habits, varieties, and figures of all stages of the same; food-habits of *Semasia* [= *Grapholitha*] *prunivora* on which the *Sigalphus* is parasitic.

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Answer to inquiry of J. M.; *Macrobasis albida* common in the Southwest and valuable as a vesicant; *Diplotaxis* not known to be a vesicant.

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Answer to letter of W. S. Barnard; occurrence of *Callosamia* [= *Attacus*] *promethea* and *Orgyia antiqua* at Ithaca, N. Y.; description of abnormal cocoon of the latter found on sugar-maple.

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Answer to inquiry of J. S. Barnwell; list of insects from Darien, Ga.; most of them have no relation to orange trees; notes on *Aphis* sp., *Chilocorus bivulnerus*, *Syrphus* sp., *Neoclytus erythrocephalus*, *Drasterius amabilis*, *Platynus punctiformis*, *Forficula* sp., *Gryllotalpa borealis*, and *Psocus venosus*.

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Luperus noxius Riley MSS., is a pale form of *L. brunneus*; description of the typical and other forms of the same; distinctive characters of *L. brunneus* and *L. morulus* from other North American species and from each other; characters of the genus *Calomicrus*.

1800. [RILEY, C. V.] Professor Riley on army-worms. <N. Y. Weekly Sun, 20 June, 1880. S.-b. No. 26, p. 89.

Interview with reporter; summary of present knowledge of *Leucania unipuncta*.

1801. RILEY, C. V. Cotton-caterpillars. <Selma [Ala.] Times, 25 June, 1880.

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Description and figures of larva, pupa, cocoon, and imago of *Arctia* [= *Pyrrharctia*] *isabella*; habits, seasons, food-plants, parasites, vernacular names and variations of the same; figure of *Ophion macrurum*; descriptions of *Ichneumon cæruleus*, *I. signatipes*, and *Trogus obsidianator*; description of larva of *Ecpantheria scribonia*.

1803. RILEY, C. V. The white-grub fungus. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, pp. 137–140, figs. 53–55.

Description and figures of *Torrubia ravenelii* and of its fructification; forms in which it occurs on larvæ of *Lachnosterna quercina* [= *fusca*]; list of some articles upon it; its synonymy and distribution; list of related species and their distribution; occurrence of related species on other insects.

1804. RILEY, C. V. The true and the bogus Yucca moth, with remarks on the pollination of Yucca. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, pp. 141–145.

History of observations on *Prodoxus decipiens*; habits, parasite, and food-plants of the same; evolution of *Prodoxus* and *Pronuba*; criticism of errors resulting from mistaking *Prodoxus decipiens* for *Pronuba yuccasella*; failure of *Yucca angustifolia* to become fertilized in the absence of *Pronuba yuccasella*; *Hyponomeuta quinquepunctella* Chambers is the same as *Prodoxus decipiens*.

1805. [RILEY, C. V.] Intermittance of phosphorescence in fire-flies. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 146.

Criticism of a discussion before the London Entomological Society; the winged imagos of *Lampyridæ* can intermit their light; the larvæ and wingless imagos can suppress their light.

1806. [RILEY, C. V.] Grain Aphis *vs.* rust. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 147.

Ravages of *Aphis avenæ* [*Nectarophora granaria*] and of rust on wheat and oats in Georgia; the work of aphides promotes the growth of some kinds of rust.

1807. [RILEY, C. V.] Mold and Phylloxera. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 147.

Criticism of statements by Rommier; development of mycelium on phylloxerized roots does not result in the destruction of the *Phylloxera*.

1808. [RILEY, C. V.] Infecting Phylloxera with fungus disease. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 148.

Abstract of discussion at meeting of Académie des Sciences de Paris on the infection of *Phylloxera vastatrix* by parasitic fungi; particular fungi infect only particular insects; method of experimentation to determine which fungi to use and how to apply them; improbability of success in these experiments.

1809. [RILEY, C. V.] Fungus in Cicada. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 148.

Notice of C. H. Peck's description and J. Leidy's note on *Massospora cicadina*; *Cicada* [= *Tibicen*] *septendecim* and *C.* [= *T.*] *tredecim* subject to the attacks of the same.

1810. [RILEY, C. V.] On the nature of the phosphorescence of the glow-worm. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 148.

Conclusions drawn by Jousset de Bellesme; probability that the phosphorescent substance is a gaseous product; nature of phosphorescence.

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About 6,000 mules reported killed in the Ouachita Valley, Louisiana, by the attacks of *Simulium* sp.

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Abundance and ravages of *Lachnosterna quercina* [= *fusca*] on oak-trees around Mobile, Ala., in May, 1880.

1813. [RILEY, C. V.] Fungus diseases of beneficial insects. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 149.

Abstract of communication by C. Brongniart and Max Cornu on an epizootic among *Syrphus mellinus* caused by a species of *Entomophthora*; almost all insecticides liable to the objection that they kill useful as well as noxious insects.

1814. [RILEY, C. V.] Early appearance of cotton-worm. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 149.

Extracts from letter of J. M. Bell and from the Goliad [Tex.] Guard and from G. Witting on the date of appearance of *Aletia argillacea* [= *xylina*] in Texas.

1815. [RILEY, C. V.] The butterfly tongue. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 149.

Notice of and extract from paper by E. Burgess; conclusions as to the manner in which butterflies imbibe their liquid food.

1816. [RILEY, C. V.] Cottony maple scale. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 149.

Notice of J. D. Putnam on *Pulvinaria innumerabilis*.

1817. [RILEY, C. V.] Necrological. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 150.

Obituary notices of E. A. H. v. Kiesenwetter, S. C. Snellen van Vollenhoven, and F. L. de Laporte.

1818. [RILEY, C. V.] Effects of severe cold on insects. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 150.

A steady even if severe winter not prejudicial to insect life.

1819. [RILEY, C. V.] Revision of the *Lampyridæ*. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 150.

Notice of H. S. Gorham's work on the *Lampyridæ* and his request for additional material.

1820. [RILEY, C. V.] Apple-twig borer. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 151.

Answer to inquiry of A. S. H.; occurrence of *Amphicerus bicaudatus* on apple-trees in Virginia.

1821. [RILEY, C. V.] Grape-vine flea-beetle. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, pp. 152–153.

Answer to letter of J. Nilis; ravages of *Graptodera* [= *Haltica*] *chalybea* on grape-vines in Pennsylvania.

1822. [RILEY, C. V.] Cynipid gall on oak twigs. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 153, fig. 56.

Answer to letter of J. A. Warder; figure of gall of *Cynips* (n. sp.?) from twig of *Quercus prinus* var. *acuminata*; comparison of this gall with that of *C.* [=*Andricus*] *q.-punctata*; the flies bred from these galls issue in spring and are all females, but probably have a bisexual form producing a different gall.

1823. [RILEY, C. V.] White-grub fungus. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 153.

Answer to letter of H. S.; occurrence of *Torrubia ravenelii* at Iola, Kans.

1824. [RILEY, C. V.] *Galerita janus*. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 153, fig. 57.

Answer to inquiry of H. D. M. Fair; distribution, habitat, transformations, and seasons of *Galerita janus*; figure of larva of *G. lecontei*.

1825. [RILEY, C. V.] Not Fuller's rose-beetle. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, pp. 153–154, fig. 58.

Answer to inquiry of J. Stewart; habits and synonymy of *Agonoderus comma* [=*pallipes*]; figure of the same.

1826. [RILEY, C. V.] Not *Aletia* chrysalides. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 154.

Answer to letter of G. P. White; pupæ of *Agrotis saucia* from cotton fields; food-habits of larva; ravages of *Aletia argillacea* [=*xylina*] at Brown Station, Ala., in August, 1879.

1827. [RILEY, C. V.] Mud-wasp and parasite. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 154, figs. 59–60.

Answer to inquiries of Mary Treat; nidification of several species of *Odynerus*; food-habits of *O. birenimaculatus*; figure of *O. flavipes* and of a nest of *Odynerus* sp.; figure of *Cryptus junceus*.

1828. [RILEY, C. V.] Monographs again. <Amer. Ent., June, 1880, [v. 3], n. s., v. 1, pp. 154–155.

Answer to letter of C. D. Marsh; references to works. *Elateridæ*, *Curculionidæ* and *Coccidæ*.

1829. [RILEY, C. V.] Rearing wood-borers. <Amer. Ent., June, 1880 [v. 3], n. s., v. 1, p. 155.

Answer to letter of W. H. Harrington; directions for rearing larvæ which bore in wood or under bark.

1830. RILEY, C. V. On a new tineid genus allied to *Pronuba*, Riley. <Amer. Ent., June, 1880, [v. 3], n. s., v. 1, pp. 155–156.

Description of *Prodoxus* n. g. [p. 155] of *Tineina* and of larva, pupa, and imagos of *P. decipiens* n. sp. [p. 155].

1831. RILEY, C. V. A parasite on *Prodoxus decipiens*. <Amer. Ent., June, 1880, [v. 3], n. s., v. 1, p. 156.

Description of larva and imago of *Exothecus prodoxi* n. sp.; habits of larva.

1832. RILEY, C. V. How to manage the cotton-worm: Suggestions to cotton planters. <Farmer's Review, 8 July, 1880. S.-b. No. 24, p. 68.

Means against *Aletia xylina*.

1833. [RILEY, C. V.] The cotton-worm investigation. <Selma [Ala.] Morning Times, 21 July, 1880, v. 55, No. 190, p. 3. Reprint: <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 197.

List of persons engaged in the cotton-worm investigation; statement of work to be done by each.

1834. [RILEY, C. V.] A foe to cottonwood. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, pp. 159–161, figs. 61–64. Extract: <Suppl. to Amer. Ent., July, 1880, p. 1.

Description of egg, larva, and imago and figures of all stages of *Melasoma* [= *Lina*] *scripta*; description and figures of variations of the imago; habits, ravages, seasons, food-plants, and means against the same; figure of *M.* [= *L.*] *lapponica* and of larva of *M.* [= *L.*] *populi*; description of these larvæ and of that of *M.* [= *L.*] *tremulæ*; food-plants and distribution of these species; acquisition of new habits by insects.

1835. [RILEY, C. V.] The northern army-worm. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, pp. 170–171, figs. 72–75.

Ravages of *Leucania unipuncta* in 1880; natural history, means against, description, and figures of all stages of the same.

1836. [RILEY, C. V.] The periodical Cicada. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, pp. 172–173, fig. 76.

Broods of *Cicada* [= *Tibicen*] *septendecim* and *C.* [= *T.*] *tredecim* which appear in 1880.

1837. [RILEY, C. V.] Use of guano for grape Phylloxera. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 173. Reprint: <Suppl. to Amer. Ent., July, 1880, p. 2.

Application of sulphide of carbon with infusorial earth or guano.

1838. [RILEY, C. V.] Fertilizers of alpine flowers. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 175. Reprint: <Suppl. to Amer. Ent., July, 1880, p. 2.

Relative frequency, according to H. Müller, of the visits of insects to flowers in high alpine regions as compared with such visits at lower levels.

1839. [RILEY, C. V.] Carnivorous habits of caddis-worms. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 176.

Notice of paper by G. C. Goody.

1840. [RILEY, C. V.] Development of the eyes and luminosity in the fire-flies. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 176.

Abstract of H. S. Gorham's observations.

1841. [RILEY, C. V.] Grape Phylloxera not at the Cape. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 176. Reprint: <Suppl. to Amer. Ent., July, 1880, p. 1.

Examination of roots of unhealthy vines by R. McLachlan and R. Trimen show that the disease of the vines is not caused by *Phylloxera vastatrix*.

1842. [RILEY, C. V.] [Bill providing for the extermination of insects.] <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, pp. 176–177.

Text of and comments on a bill introduced into the California Assembly, providing for the extermination of insects.

1843. [RILEY, C. V.] [Appropriation for the U. S. Entomological Commission.] <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 177.

Notice of the appropriation by Congress of $25,000 for completing the work of the U. S. Entomological Commission.

1844. [RILEY, C. V.] Pronuba *vs.* Prodoxus. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, pp. 177–178.

Comments on letter of V. T. Chambers.

1845. [RILEY, C. V.] Interesting cotton-worm notes from Vera Cruz, Mexico. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 179. Reprint with slight omission: <Suppl. to Amer. Ent., July, 1880, p. 3.

Letters from S. T. Trowbridge and R. de Zayas Enriquez, with notes on the irregular occurrence of *Aletia argillacea* [=*xylina*] in Vera Cruz.

1846. [RILEY, C. V.] Clover-root borer. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, pp. 179–180, fig. 81. Reprint: <Suppl. to Amer. Ent., July, 1880, p. 4. See: <Prairie Farmer, 31 July, 1880. S.-b. No. 45, p. 15.

Answer to letter of W. A. Henry; description and figures of larva, pupa, and imago of *Hylesinus trifolii*; ravages, habits, and means against the same.

1847. [RILEY, C. V.] Mud-wasp and spider egg-nest. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 180, figs. 82–84.

Answer to letter of Mary Treat; figures of cells and of imago of *Eumenes fraterna*, which stores its cells with larvæ of *Paleacrita vernata*; figure and descriptions of egg-nests of *Epeira* sp.

1848. [RILEY, C. V.] Worm in joints of wheat. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, pp. 180–181, fig. 85. Reprint: <Suppl. to Amer. Ent., July, 1880, p. 4.

Answer to letter of J. K. P. Wallace; ravages of an unknown, apparently hymenopterous, larva in wheat-stalks; figure of larva and pupa of *Meromyza americana* and of stalks injured by the same.

1849. [RILEY, C. V.] Linden and ash destroyers. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 181. Reprint: <Suppl. to Amer. Ent., July, 1880, p. 4.

1849. RILEY, C. V.—Continued.

Answer to letter of Shelby Reed; season of appearance of *Odontota rubra* on *Tilia*; larvæ of *Hyphantria textor* [=*cunea*] feeding on the same; *Saperda calcarata* boring in poplar, and an unknown larva (*Neoclytus capræa*?) boring in black-ash.

1850. [RILEY, C. V.] Larva boring along the axis of apple-twigs. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 181.

Answer to letter of T. V. Munson; twigs of apple-trees bored by larvæ of *Oberea* sp.?

1851. [RILEY, C. V.] Aquatic larvæ. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 181.

Answer to letter of S. A. Forbes; larvæ of *Anax junius* and *Palingenia* [=*Hexagenia*] *bilineata* named; the latter common in the stomach of fishes.

1852. [RILEY, C. V.] First appearance of cotton-worm in prairie belt. Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 181. Reprint: <Suppl. to Amer. Ent., July, 1880, pp. 3–4.

Answer to letter of J. F. Bailey; larvæ of *Aletia argillacea* [=*xylina*] appear first on lands where the cotton is luxuriant.

1853. [RILEY, C. V.] *Gyrinus* larva; terrestrial insects in stomach of shad. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 182.

Answer to letter of S. A. Forbes; character of larva of *Gyrinus*; a mass of terrestrial insects including *Typhlocyba vitis*? a muscid, a Eurytomid, *Jassus* sp., *Triphleps insidiosus*, and other species from the stomach of Ohio shad.

1854. RILEY, C. V. Further remarks on the differences between *Pronuba* and *Prodoxus*. <Amer. Ent., July, 1880 [v. 3], n. s., v. 1, p. 182.

Differences between *Pronuba yuccasella* and *Prodoxus decipiens* in the form, sculpture, and color of the terminal joint, and of the ovipositor.

1855. [RILEY, C. V.] The grape-vine flea-beetle, *Graptodera chalybea* Illig. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, pp. 183–184, fig. 86.

Habits, seasons, ravages of, and means against *Graptodera* [=*Haltica*] *chalybea*; figures, injured leaf, and larvæ, cocoon, and imago of the same.

1856. RILEY, C. V. Further notes and observations on the army-worm. <Amer. Ent., 1880 [v. 3], n. s., v. 1: August, pp. 184, 185; September, pp. 214, 215. Reprint, with changes: <Sci. Amer., 4 September [v. 57], n. s., v. 43, p. 152. S.-b. No. 23, pp. 161–162.

Progress of knowledge upon the number of annual generations of *Leucania unipuncta*; stages of growth at which it hibernates; the destructive generation probably not the first of the season; explanation of the partial efficacy of the burning of fields in winter as a means against this insect; connection of wet and dry seasons with its increase; its natural habits; errors of A. Fitch.

1857. [RILEY, C. V.] Sprinklers and atomizers. <Amer. Ent., 1880 [v. 3], n. s., v. 1: August, pp. 185–189, figs. 87–98; September, pp. 211–214, figs. 111–117.

Extracts from pp. 56–57 and reprint of pp. 85–94 of Bull. No. 3, U. S. Entomological Commission. See No. 1736 for synopsis of contents.

1858. RILEY, C. V. The use of pyrethrum. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, pp. 193–195.

Record of experiments by W. A. Henry upon the effect of Pyrethrum powder on *Halticidæ*, *Meloidæ*, *Pieris rapæ*, *Coreus* [=*Anasa*] *tristis*, and *Blattidæ*; and of the fumes of burning pyrethrum on various insects.

1859. [RILEY, C. V.] [Colorado potato-beetle in New Hampshire.] <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 195.

Ravages of *Doryphora 10-lineata* in Coos County, N. H., in 1879.

1860. [RILEY, C.V.] Retarded development in a blister-beetle. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 196.

Final transformations of individuals from a single batch of eggs of *Epicauta vittata* occurring at the first, second, and third year after hatching.

1861. [RILEY, C. V.] Ox-eye daisy as an insecticide. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 196.

Experiments by W. S. Barnard upon the effect of alcoholic extracts of the flowers and stems of the ox-eye daisy on insects; "no evidence that they will prove of any practical value."

1862. [RILEY, C. V.] Directions for raising pyrethrum. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 197.

Directions for sowing the seeds and cultivating the plants of pyrethrum.

1863. [RILEY, C. V.] State Entomologist for New York. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, pp. 197, 198.

Notice of the appointment of J. A. Lintner as State Entomologist of New York.

1864. [RILEY, C. V.] Economic investigations in the South and West. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 198.

Meeting of the U. S. Entomological Commission; plan of work to be done in 1880–1881; partial list of persons engaged in the work.

1865. [RILEY, C. V.] [Number of entomologists in Europe.] <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 198.

Tabulation of the number of entomologists of the several countries of Europe.

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Commendation of the above work and of the supplementary list of *Elateridæ* by E. Candèze; need of co-operation for the completion of the whole catalogue.

1867. [RILEY, C.V.] Carnivorous propensity of plant-feeders. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 200.

Larvæ of *Plusia brassicæ* devour those of *Pieris rapæ* and *Pionea rimosalis* in default of more natural food.

1868. [RILEY, C. V.] Beetles injuring cabbages and fuchsias. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 200, fig. 106.

Answer to letter of G. T.; ravages, distribution, and figures of *Epicærus imbricatus;* description of eggs, ravages, food-plants, and means against *Graptodera* [=*Haltica*] *cærinata*.

1869. [RILEY, C. V.] Spider and nest. <Amer. Ent., August, 1880, [v. 3], n. s., v. 1, p. 200.

Answer to letter of Mrs. J. B. Harrison; distribution and distinctive characters of *Acrosoma stellatum*.

1870. [RILEY, C. V.] Damage to wheat: Worm boring in the stalk. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 201.

Answer to letter of A. R. Frost; food-plants and ravages of larva and figure of larva and imago of *Gortyna nitela*.

1871. [RILEY, C. V.] Larvæ from stomach of blue-bird. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 201.

Answer to letter of S. A. Forbes; larva of *Meracantha contracta* and of *Callimorpha* sp. from stomach of blue-bird; habits and characters of the same.

1872. [RILEY, C. V.] Butterfly larva injurious to cotton squares. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 201.

Answer to letter of B. F. Cooke; larva of *Thecla* (*pœas*?) feeding on leaves and bolls of cotton-plant; a species of *Microgaster* parasitic in the larva.

1873. [RILEY, C. V.] Cut-worms from stomach of robin. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 201.

Answer to letter of S. A. Forbes; larvæ of *Agrotis* (*messoria*?) from stomach of robin; *Agrotis cochrani* = *A. messoria*.

1874. [RILEY, C. V.] Large phosphorescent larva. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, pp. 201–202, fig. 108.

Answer to letter of S. F. Clarke; occurrence in Maryland and Missouri of a luminous larva (*Melanactes* sp. ?) [= *Phengodes* sp.]; figures of the larva, of its head and leg enlarged and of its probable parent; occurrence in the more northern States of a similar larva, probably that of *Asaphes memnonius*.

1875. RILEY, C. V. Worms injuring wheat. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 202.

Answer to letter of J. Monaghan; ravages of larva of *Meromyza americana*.

1876. RILEY, C. V. Ash-root borer: Supposed eggs of *Odontota*. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, pp. 202–203.

Answer to letter of Shelby Reed; habits and ravages of *Parandra brunnea*; *Pimpla* sp. parasitic upon its larva; probable manner in which the eggs of *Odontota rubra* are laid.

1877. [RILEY, C. V.] Army-worm notes and inquiries: Its work on clover. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 203.

Answer to letter of L. T. Derousse; *Leucania unipuncta* frequently leaves clover-plants untouched while eating the grasses growing with the clover, but under some circumstances destroys young clover-plants.

1878. [RILEY, C. V.] Ichneumon from stomach of bluebird. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 203.

Answer to letter of S. A. Forbes; *Lampronota* sp. eaten in quantity by bluebirds.

1879. [RILEY, C. V.] Leaf-miner on white oak. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 203.

Answer to letter of E. W. Claypole; description, habits, and ravages of *Lithocolletis cincinnatiella*.

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Answer to letter of A. R. Kilpatrick; *Lucilia macellaria* supposed to be the parent of the "screw-worm"; food-habits of certain *Muscidæ*.

1881. [RILEY, C. V.] Silk culture: How to dispose of cocoons. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, pp. 203–204.

Answer to letter of C. F. Durksen; need of silk-filatures in the United States; present means of selling cocoons.

1882. [RILEY, C. V.] Best cotton-worm destroyer. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 204.

Answer to letter of J. G. Dauterive; reference to the most reliable poison and the best machines and methods for applying poison to kill *Aletia argillacea* [=*xylina*].

1883. [RILEY, C. V.] Twice-stabbed lady-bird. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 204, fig. 109.

Answer to letter of H. N. Patterson; *Coccinellidæ* beneficial by feeding on *Aphididæ* and *Coccidæ*; figure of *Chilocorus bivulnerus*; significance of the presence of this beetle in large numbers on trees.

1884. [RILEY, C. V.] Pseudo-scorpion. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, p. 204.

Answer to inquiry of C. H. S. Davis; habitats and food-habits of *Chelifer cancroides* and other *Chernetidæ*.

1885. [RILEY, C. V.] Bluebirds feeding on parasitic and predaceous insects. <Amer. Ent., August, 1880 [v. 3], n. s., v. 1, pp. 204–205.

Answer to letter of S. A. Forbes; bluebirds more destructive to parasitic and predaceous insects than the thrushes; percentage of such food found in the stomachs of the bluebird; larvæ of *Leucania unipuncta*, *Telephorus bilineatus*, and *Nephelodes violans* eaten by the same; probable hibernation of the first named; habits, hibernation, distribution, and popular name of the *Nephelodes*.

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Facts and principles established by the U. S. Entomological Commission, applicable to the whole cotton belt, regarding the times and manner of first appearance of *Aletia argillacea* [=*xylina*] and *Heliothis armigera* upon the cotton-plant; habits of the larvæ and imagos and the best means of destroying the same; relative efficacy of several insecticides; methods of preparing and applying the same; importance of early poisoning; main object of the cotton-worm inquiry accomplished.

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Advocacy of the use of Paris green and London purple as means against certain insects; danger of the use of the same against many insects; criticism of A. J. Cook's recommendation for their use against *Paria aterrima* and *Carpocapsa pomonella*; limitations within which they may be used.

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Call for experiments to ascertain the minimum quantity of poisons which can be used effectually against *Aletia argillacea* [=*xylina*]; effect of poisons on the several stages of this insect; food-plants, parasites, and enemies of the same; effect of yeast ferment upon it.

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Review of paper by S. H. Scudder; certain forms described as species of *Pezotettix* are dimorphic forms of *Caloptenus*; extract from 8th Ann. Rept. State Ent. Mo., 1876, p. 115.

1890. [RILEY, C. V.] A scale insect on maple hitherto unobserved by American entomologists. <Amer. Ent., September, 1880 [v. 3], n. s., v. 1, pp. 220–221.

Notice of paper by Miss E. A. Smith, with emended reprint of a portion of the same; habits, colors, and behavior of young larvæ and transformations of the male of *Pseudococcus aceris*.

1891. [RILEY, C. V.] How flight in insects is directed. <Amer. Ent., September, 1880 [v. 3], n. s., v. 1, p. 221.

Abstract of paper by Jousset de Bellesme; direction of flight not determined by the motion of the wings, but principally by the displacement of the center of gravity, resulting from the changes of position of other parts of the body.

1892. [RILEY, C. V.] Entomological work at the Department of Agriculture. <Amer. Ent., September, 1880 [v. 3], n. s., v. 1, p. 222.

Notice of the continuation of the appropriations by Congress for field-work and experiments in the entomological division of the U. S. Department of Agriculture.

1893. [RILEY, C. V.] Entomological papers read before the A. A. A. S. <Amer. Ent., September, 1880 [v. 3], n. s., v. 1, p. 223.

Titles of twenty-eight [28] papers read at the Boston meeting.

1894. [RILEY, C. V.] Entomologists at Boston. <Amer. Ent., September, 1880 [v. 3], n. s., v. 1, p. 223.

Notice of the 29th meeting of the A. A. A. S. at Boston, August–September, 1880.

1895. RILEY, C. V. Winged Phylloxera in California. <Amer. Ent., September, 1880 [v. 3], n. s., v. 1, pp. 224–225.

Letter from J. S. Hyde, with remarks; extracts from papers by E. W. Hilgard; winged fertile females of *Phylloxera vastatrix* found in California; local evidence of the spread of this insect; means of eradicating the same.

1896. [RILEY, C. V.] Worm infesting meal sacks. <Amer. Ent., September, 1880 [v. 3], n. s., v. 1, p. 229.

Answer to letter of J. Greenwood, jr.; description of larva and imago of *Ephestia zeæ* [=*interpunctella*]; food-habits of the larva.

1897. [RILEY, C. V.] Hesperid larva feeding on *Canna*. <Amer. Ent., September, 1880 [v. 3], n. s., v. 1, p. 229.

Answer to letter of N. S. Reed; occurrence of *Pamphila ethlius* in Illinois and South Carolina; its larva injurious to *Canna flaccida*.

1898. [RILEY, C. V.] Grape-vine apple-gall. <Amer. Ent., September, 1880 [v. 3], n. s., v. 1, p. 229, fig. 119.

Answer to letter of A. R. McCutchen; occurrence of *Cecidomyia ? vitis-pomum* and of *Calosoma scrutator* in Georgia; figures gall of the first named; food-habits of the *Calosoma*.

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Answer to letter of H. B. May; occurrence and ravages of *Aphis mali ?* in Oregon; means against the same.

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Answer to letter of H. B. Trimble; occurrence of *Phylloxera vastatrix* at West Chester, Pa.; roots of grape-vines destroyed from unknown cause, perhaps by young of *Phyloscia* or *Porcellio*.

1901. RILEY, C. V. New hickory galls made by Phylloxera. <Amer. Ent., September, 1880 [v. 3], n. s., v. 1, p. 230.

Description of *Phylloxera caryæ-scissa* n. sp. and *P. caryæ-avellana* n. sp. from Florida; larva of *Diplosis* found in the galls.

1902. RILEY, C. V. Food-habits of the longicorn beetles or wood-borers. <Amer. Ent., 1880 [v. 3], n. s., v. 1; October, pp. 237–239; November, pp. 270–271.

Food-plants and food-habits of the *Prionidæ* and *Cerambycidæ* of the United States.

1903. [RILEY, C. V.] Additional experiments with Pyrethrum. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 242.

Details of experiments made by H. G. Hubbard on the effect of very minute quantities of Pyrethrum powder on very young larvæ of *Aletia argillacea* [=*xylina*].

1904. [RILEY, C. V.] A new enemy to the strawberry. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, pp. 242–243, fig. 121.

Review of paper by A. J. Cook; extracts from the same; description and habits of larva and imago of *Paria aterrima*; means against the imago; habits of larva of *Colaspis flavida*; figure of the same; number of segments and spiracles in larvæ of Coleoptera.

1905. [RILEY, C. V.] A new enemy to corn: The long-horned *Diabrotica*. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 247.

Notice of recent articles on the ravages of the larva of *Diabrotica longicornis*; food-habits and means against the same; food-habits of *Drasterius amabilis*.

1906. [RILEY, C. V.] Phylloxera congress in Spain. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 247.

Notice of a congress to be held in Spain to consider all topics connected with the ravages of *Phylloxera vastatrix*.

1907. [RILEY, C. V.] The grape Phylloxera not permanently destructive. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 248.

Recovery of grape-vines formerly injured by *Phylloxera vastatrix* in California and Missouri; belief that in Europe grape-vines will be grown again on the lands of late years ravaged.

1908. [RILEY, C. V.] Sale of silk-worm eggs. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 248.

$6,000,000 worth of silk-worm eggs sent from Japan to France via San Francisco in each of the four years 1874–1877.

1909. [RILEY, C. V.] [Death of S. S. Haldeman.] <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 248.

Obituary notice.

1910. [RILEY, C. V.] [Retirement of Mr. Fuller.] <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 248.

Announcement of the retirement of A. S. Fuller as assistant editor of the American Entomologist.

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Answer to letters of J. L. Leconte and J. Screven; ravages of and means against the "grub" [= *Chalepus trachypygus*] and the "maggot" [= *Lissorhoptrus simplex*] in rice fields in Georgia.

1912. [RILEY, C. V.] Blind-eyed *Smerinthus*. <Amer. Ent., October 1880 [v. 3], n. s., v. 1, p. 254.

Answer to inquiry of Mrs. J. B. Harrison; occurrence at lamp-light in N. H. of *Smerinthus excæcatus*; food-plant of the larva of the same.

1913. [RILEY, C. V.] White waxy secretion on stems of bitter-sweet. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 254.

Answer to inquiry of J. A. Lintner; method of oviposition and characters of egg-mass of *Enchophyllum* [= *Enchenopa*] *binotata*; seasons, habits, and food-plants and description of the eggs of the same.

1914. [RILEY, C. V.] Prickly-ash larva: Tachinid eggs. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 254.

Answer to inquiry of R. W. Jones; larva of *Papilio cresphontes* on prickly ash; eggs of *Tachina* sp. on larva of *Aletia argillacea* [= *xylina*].

1915. [RILEY, C. V.] Worms on cabbage: Boll-worm feeding on leaf. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 254.

Answer to inquiry of R. W. Jones; food-habits of larvæ of *Heliothis armigera* and of *Pionea rimosalis*.

1916. [RILEY, C. V.] Buggy peas. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 254.

Answer to letter of A. Berger; abundance of *Bruchus pisi* in Wisconsin; means against it.

1917. RILEY, C. V. Glow-worm. <Amer. Ent., October, 1880 [v. 3], n. s., v. 1, p. 254, fig. 123.

Answer to letter of J. J. Dean; occurrence of larva of *Photuris pennsylvanica* at Chatham, N. J.; figures larva and imago of the same; larva and imago of *Photinus pyralis*, also luminous; males and females of these species winged; female of *Lampyris noctiluca* wingless and more luminous than the male.

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Abstract of paper by A. N. Prentiss; the constant presence of spores of fungi in the air vitiates the value of most experiments on the application of the fungi to insects; insects rarely affected by the spores which are in the air while the plants are more so affected; yeast more injurious mechanically than infectiously.

1919. [RILEY, C. V.] New species of scale insects. <Amer. Ent., November, 1880 [v. 3], n. s., v. 1, pp. 275–276.

Review of paper by W. H. Ashmead on the red scale.

1920. [RILEY, C. V.] Remedy for cabbage worms. <Amer. Ent., November, 1880 [v. 3], n. s., v. 1, p. 276.

Pyrethrum powder the most satisfactory means against all larvæ affecting the leaves of cabbage.

1921. [RILEY, C. V.] Pyrethrum for the screw-worm. <Amer. Ent., November, 1880 [v. 3], n. s., v. 1, p. 276.

Notice of paper by A. R. Kirkpatrick; directions for the use of pyrethrum powder against the "screw-worm" [=*Lucilia macellaria*]; objections to the use of other remedies.

1922. [RILEY, C. V.] Oviposition in the *Tortricidæ*. <Amer. Ent. November, 1880 [v. 3], n. s., v. 1, p. 276.

Notice of and extract from paper by C. H. Fernald.

1923. [RILEY, C. V.] About *Phora* being merely a scavenger and not a true parasite. <Amer. Ent., November, 1880 [v. 3], n. s., v. 1, p. 277.

Letter from C. R. Osten Sacken, with remarks; *Phora aletiæ* not a parasite; oviposition and habits of larva of the same.

1924. [RILEY, C. V.] Gall on Solidago leaves. <Amer. Ent., November, 1880 [v. 3], n. s., v. 1, p. 278.

Answer to letter of H. Barnes; occurrence of galls of *Cecidomyia carbonifera* on leaves of *Solidago nemoralis*? at Mulberry Corners, Ohio.

1925. [RILEY, C. V.] Oak gall: *Cynips q.-decidua* Bass. <Amer. Ent., November, 1880 [v. 3], n. s., v. 1, p. 278.

Answer to letter of J. Schenck; galls of *Cynips q. decidua*? found on leaves of *Quercus muhlenbergii* at Mount Carmel, Ill.

1926. [RILEY, C. V.] Insects from stomach of lark, robin, and sunfish. <Amer. Ent., November, 1880 [v. 3], n. s., v. 1, p. 278.

Answer to letter of S. A. Forbes; *Diplotaxis sordida* from stomach of meadow-lark; egg of a reduviid from that of a robin; larva of an ephemerid (*Polymitarcys alba*?) from the stomach of a sunfish.

1927. [RILEY, C. V.] Supposed hibernating *Aletia* chrysalis. <Amer. Ent., November, 1880 [v. 3], n. s., v. 1, p. 278.

Answer to letter of J. W. Davidson; pupa resembling that of *Achatodes zeæ* found in stalk of maize at Uniontown, Ala.

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1928. RILEY, C. V.—Continued.
279–283, figs. 147–151. Review: <Ent. Mo. Mag., February, 1881, v. 17, pp. 206–207.
Advance print of pp. 262–267 and a general abstract of pp. 267–269 of the section entitled "Bee-fly larvæ, family *Bombyliidæ*," in 2d Rept. U. S. Entomological Commission. See No. 1959 for synopsis of contents.

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Description, with figures, of *Clydonopteron* n. g. [p. 287] and of larva, pupa, and imago of *C. tecomæ* n. sp. [p. 288], and of the abode of this insect in pods of the trumpet-vine; habits of the insect.

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Reports by J. E. Willet and A. J. Cook upon their experiments in the application of beer and yeast to various insects; no infection communicated to the insects by these applications.

1931. RILEY, C. V. Notes on the imported elm leaf-beetle. <Amer. Ent., December, 1880 [v. 3], n. s., v. 1, pp. 291–292.
Answer to letter of J. L. Leconte; seasons, transformations, enemies, and ravages of and means against *Galeruca xanthomelæna*; hibernation of *Chrysomeliæ*.

1932. [RILEY, C. V.] Synonyms of parasites' mistakes corrected. <Amer. Ent., December, 1880 [v. 3], n. s., v. 1, p. 293. Review: <Ca. Ent., February, 1881, v. 13, pp. 31–33, fig. 3.
Review of paper by L. O. Howard; comparison of the alleged characters of *Antigaster* and *Eupelmus* to show grounds for the founding of the former; *Didictyum* synonymous with *Hexaplasta*; *H. zigzag* not a parasite of *Aletia argillacea* [= *xylina*], but of *Phora aletiæ*; habits of *H. zigzag*.

1933. [RILEY, C. V.] "A mystery in reference to *Pronuba yuccasella*." <Amer. Ent., December, 1880 [v. 3], n. s., v. 1, p. 293.
Critical review of paper by H. A. Hagen, who confounded *Prodoxus decipiens* with *Pronuba yuccasella*.

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Figure, with explanation, of the mandible of *Lithocolletis guttifinitella*.

1935. [RILEY, C. V.] Excessive injury by a beetle in Russia. <Amer. Ent., December, 1880 [v. 3], n. s., v. 1, p. 294.
Ravages of *Anisoplia austriaca* in southern Russia; description of the same; its habits and vernacular name.

1936. [RILEY, C. V.] Chemical change in the color of butterfly-wings. <Amer. Ent., December, 1880 [v. 3], n. s., v. 1, p. 294.
Note on paper by W. H. Edwards and J. M. Wilson.

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Answer to inquiry of J. J. Brown; *Cis fuscipes* and all *Cioidæ* infest fungi growing on old trees and logs.

1938. [RILEY, C. V.] The twig-girdler. <Amer. Ent., December, 1880 [v 3], n. s., v. 1, p. 297, figs. 155–156.

Answer to letter of W. R. Maxwell; figures of larva, pupa, and imago of *Oncideres cingulata* and of twig injured by the imago; food-plants, habits, and transformations of this insect.

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Answer to letter of L. C. Bryan; account of the gall of *Rhodites rosæ*; figure of the same.

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Answer to letters of J. L. Bennett and M. H Boye; ravages, food-plants, and distribution of *Scolytus rugulosus*; food-habits of the species of *Scolytus*.

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Answer to letter of G. Thommen; habits, ravages, and food-plants of *Agrotis saucia*.

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Answer to letter of H. C. McCook; secretion of saccharine matter by galls growing on *Quercus undulata*; description of these galls, *Cynips quercus-mellaria* n. sp.; *Myrmecocystus hortus-deorum* [= *melliger*] collects the saccharine matter from these galls.

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1970. RILEY, C. V. Larval habits of bee-flies. <Amer. Nat., June [19 May], 1881, v. 15, pp. 438–447, pl. 6. Separate: <pp. 438–447.

Adapted from the 2d Rept. U. S. Ent. Commission, pp. 262–269; see No. 1959 for synopsis of contents.

1971. [RILEY, C. V.] The periodical Cicada alias "seventeen-year locust." <Amer. Nat., June [19 May], 1881, v. 15, pp. 479–482, fig. 1. Correction: <*Ibid.*, July [22 June], 1881, p. 578.

Extract from 1st Rept. State Ent. Mo., with additional notes; figures eggs, pupæ, and imago of *Cicada* [=*Tibicen*] *septendecim*, and of twig punctured by the imago for the deposition of her eggs.

1972. RILEY, C. V. A new species of oak coccid mistaken for a gall. <Amer. Nat., June [19 May], 1881, v. 15, p. 482.

Description of *Kermes galliformis* n. sp. [p. 482] occurring on *Quercus palustris* in the southern and central United States; the coccid infested by *Eucle-mensia bassettella*.

1973. [RILEY, C. V.] The "water-weevil" of the rice-plant. <Amer. Nat., June [19 May], 1881, v. 15, pp. 482–483. Extract: <Ann. Rept. [U. S.] Commissioner Agric. for 1881 and 1882, pp. 130–133.

Note on the injury done to rice plants by the larvæ of *Chalepus trachypygus* and by other larvæ, probably *Lissorhoptrus simplex*; letter from J. Screven; seasons, habits, and ravages of the last-mentioned species.

1974. [RILEY, C. V.] The impregnated egg of *Phylloxera vastatrix*. <Amer. Nat., June [19 May], 1881, v. 15, pp. 483, 484. Reprint: <Amer. Wine and Grape Grower, 1 July, 1881, v. 3, p. 104. S.-b. No. 42, pp. 12–13.

Verification by P. Graell of author's conclusion that the impregnated egg of *Phylloxera vastatrix* would generally be found to hatch in the same season in which it was laid.

1975. RILEY, C. V. Works on North American Microlepidoptera. <Amer. Nat., June [19 May], 1881, v. 15, pp. 484–486.

Review of works of T. de Grey [Lord Walsingham]; discussion of new genera; list of *Tortricidæ* of economic interest common to Europe and North America; additions to the synonomy of *Tortricidæ*.

1976. [RILEY, C. V.] Moths mistaken for *Aletia*. <Amer. Nat., June [19 May], 1881, v. 15, pp. 486–487.

Platyhypena [= *Hypena*] *scabra* and *Phoberia atomaris* mistaken for *Aletia argillacea* [= *xylina*]; hibernating habits of the first species.

1977. [RILEY, C. V.] Specific value of *Apatura alicia* Edw. <Amer. Nat., June [19 May], 1881, v. 15, p. 487.

Critical review of paper by W. H. Edwards.

1978. RILEY, C. V. *Antigaster* vs. *Eupelmus*. <Ca. Ent., May, 1881, v. 13, p. 114.

Validity of L. O. Howard's reasons for considering *Antigaster* a synonym of *Eupelmus*.

1979. RILEY, C.V. The periodical Cicada alias "seventeen-year locust." <Farmer's Review, 16 June, 1881, v. 6, p. 370. S.-b. No. 42, pp. 18–20.

Extract from 1st Rept. State Ent. Mo., with additional notes and request for further information in regard to the chronology and geographical distribution of the broods of *Cicada* [= *Tibicen*] *septendecim* and *C.* [= *T.*] *tredecim* which appear in 1881.

1980. [RILEY, C. V.] Dimorphism in *Cynipidæ*. <Amer. Nat., July [22 June], 1881, v. 15, p. 566.

Claim of author to have made the first record at least in North America of proof of dimorphism in *Cynipidæ*; notice of writings of B. D. Walsh, H. F. Bassett, and H. Adler on the subject; list of species of *Cynipidæ* in which the occurrence of dimorphic forms has been proven, and of closely allied species in which no alternate generation seems to occur.

1981. [RILEY, C. V.] *Blepharoceridæ*. <Amer. Nat., July [22 June], 1881, v. 15, pp. 567–568.

Account of various investigations into the natural history of *Blepharoceridæ*; description of larvæ and pupæ of these flies.

1982. [RILEY, C. V.] *Braula cæca* not particularly injurious to the honey-bee. <Amer Nat., July [22 June], 1881, v. 15, p. 568.

Notice of paper of J. Fedarb; ravages of *Braula cæca* in hives generally overestimated at present and formerly unknown.

1983. [RILEY, C. V.] Economic entomology in England. <Amer. Nat., July [22 June], 1881, v. 15, p. 568.

Notice of Miss E. A. Ormerod's report for 1880.

1984. [RILEY, C. V.] The cultivation of pyrethrum and manufacture of the powder. <Amer. Nat., 1881, v. 15, July [22 June], pp. 569–572; September [23 August], pp, 744–746; October [23 September], pp. 817–819. See: <Amer. Wine and Grape Grower, December, 1881, v. 4, p. 22. S.-b. No. 51, p. 149.

Partial history of the use of pyrethrum powder as an insecticide; directions for the cultivation of the plants and for the production and use of the powder

1985. [RILEY, C. V.] Hudson Bay Lepidoptera. <Amer. Nat., July [22 June], 1881, v. 15, pp. 572, 573.

Review of paper of J. J. Weir; reprint of the list of Lepidoptera and of the remarks on the explanation of the relations of the fauna of Hudson's Bay to that of Europe; probability that the species identical with those of Europe are recent immigrants.

1986. [RILEY, C. V.] Trade in insects. <Amer. Nat., July [22 June], 1881, v. 15, p. 573.

General decline in prices of insects within sixty years or more; statement of some prices obtained for Coleoptera recently.

1987. [RILEY, C. V.] Ants injurious in Arizona. <Amer. Nat., July [22 June], 1881, v. 15, pp. 573, 574.

Statement by H. H. Rusby of ravages of *Formicidæ*, which occur in vast colonies.

1988. [RILEY, C. V.] Covering of egg-puncture mistaken for *Dorthesia*. <Amer. Nat., July [22 June], 1881, v. 15, p. 574.

Waxy material covering the egg-punctures of *Enchophyllum* [= *Enchenopa*] *binotata*, labeled *Dorthesia viburni* and *D. celastri* in collection of A. Fitch.

1989. [RILEY, C. V.] [*Dolerus unicolor.*] <Amer. Nat., July [22 June], 1881, v. 15, p. 574.

Doubts the statement of H. Keenan that the imagos of *Dolerus unicolor* injure the fruit buds of pear-trees.

1990. [RILEY, C. V.] Supposed army-worm in New York and other Eastern States. <Amer. Nat., July [22 June], 1881, v. 15, pp. 574–577.

Ravages of *Nephelodes violans* and *Crambus vulgivagellus* in New Jersey, Long Island, and northern New York; natural history, vernacular names, and description of the larva of the former species; previous accounts of this larva.

1991. [RILEY, C. V.] Migration of butterflies. <Amer. Nat., July [22 June], 1881, v. 15, p. 577.

Report by J. H. Mellichamp of the eastward flight of thousands of *Pieris monuste* in small groups of two, three, or more individuals, on 1 and 2 June, 1881, over Bluffton, S. C.; description of larva and pupa; food-plants of larva.

1992. [RILEY, C. V.] Classification of the mites. <Amer. Nat., July [22 June], 1881, v. 15, pp. 577–578.

Abstract of letter of G. Haller; observations on the appendages and systematic position of the *Acarina*.

1993. [RILEY, C. V.] Carrying out the law. <Amer. Nat., July [22 June], 1881, v. 15, p. 578.

A fine of £5 imposed upon a man in England for importing living *Doryphora decemlineata* into that country.

1994. RILEY, C. V. Locusts and locusts. <N. Y. Tribune, 22 June, 1881. S.-b. No. 32, pp. 55–56; No. 42, pp. 7–11.

Cicada [= *Tibicen*] *septendecim* and *C.* [*T.*] *tredecim* compared with *Caloptenus spretus* to explain and correct the confusion of the species by those who call them all "locusts"; differences in the habits and characters of these

1994. RILEY, C. V.—Continued.

insects, their periodicity and distribution; no fear that *C. spretus* will commit great ravages this year; recommendation of a system of observations and warnings by the United States Signal Service to guard against unexpected inroads of *C. spretus*.

1995. RILEY, C. V. The caterpillar nuisance. <Evening Star [Washington, D. C.], 24 June, 1881, v. 57, No. 8802, p. 3. S.-b. No. 23, p. 152; No. 42, p. 13. Reprint: <Amer. Nat., September [23 August], 1881, v. 15, pp. 747–748, 1 fig.

Natural history of *Hyphantria textor* [=*cunea*]; means against it; methods of applying poisoned liquids to trees.

1996. RILEY, C. V. Directions for cultivating pyrethrum for insect powder. <Gardener's Mo. and Hortic., June, 1881, v. 23, pp. 172–173. S.-b. No. 23, p. 153.

Directions for raising *Pyrethrum cinerariæfolium* from seed; climate not favorable to the growth of *P roseum*; preparation of these plants for the destruction of insects.

1997. RILEY, C. V. Cotton-worms and Cicadas. Prof. Stelle's logic! <Selma [Ala.] Times, 19 July, 1881. S.-b. No. 24, pp. 44–45; No. 39, p. 123.

Criticism of statements of J. P. Stelle; impossibility of exterminating *Aletia xylina*; waves of destructiveness; *Cicada* [=*Tibicen*] *tredecim* abundant in sections of Alabama, as predicted.

1998. RILEY, C. V. The Rocky Mountain locust alias Western grasshopper. <Amer. Agric., July, 1881, v. 40, pp. 283–284, 6 figs. S.-b. No. 23, p. 142.

Summary of facts concerning the egg-laying development, habits, food-plants, destructive powers, migration, flight, and enemies of and means against *Caloptenus spretus*; figures of the eggs of the insect in all stages, of the manner of oviposition, and of pans for the destruction of the locusts; prospects of future injury.

1999. RILEY, C. V. Lepidopterological notes. <Papilio, July, 1881, v. 1, pp. 106–110.

Advance print of extracts from Bull. No. 6, U. S. Entomological Commission, pp. 56–58, 78, 82–83. See No. 2026 for synopsis of contents.

2000. RILEY, C. V. Further notes on the pollination of Yucca and on *Pronuba* and *Prodoxus*. <Proc. Amer. Assoc. Adv. Sci. for 1880, 14 October, 1881, v. 23, pp. 617–639, 16 figs. Separate: <[Salem, Mass, July, 1881], 23 pp., 16 figs.

Recapitulation of published observations on *Pronuba yuccasella* and *Prodoxus decipiens*, with additional observations and references to literature; habits and functions of the two species; descriptions and figures of the generic characters of *Pronuba*, *Prodoxus*, and *Hyponomeuta*, and of the specific characters of *Pronuba yuccasella*, *P. maculata* n. sp., *Prodoxus decipiens*, *P. intermedius* n. sp., *P. marginatus* n. sp., *P. cinereus* n. sp., *P. æneseens* n. sp., *Hyponomeuta malinella*, and *H. multipunctella*, especially the structure of the ovipositor and the male characters, and the venation of the wings; discussion of the structure of the ovipositor in Lepidoptera characterization of the new family *Prodoxidæ* to comprise *Pronuba* and *Prodoxus*; generic and specific synonymy; reply to criticism of T. Meehan; list of insects frequenting Yucca; synonymical list of the described *Prodoxiæ*.

2001. RILEY, C. V. Additional notes on the army worm, *Leucania unipuncta*. <Proc. Amer. Assoc. Adv. Sci. for 1880 [14 October], 1881, v. 29, pp. 640–642. Separate: <Salem, Mass., July, 1881, pp. 24–26. Abstract: <Boston Daily Advertiser, 2 September, 1880, v. 136, p. 4.

Number of annual generations of *Leucania unipuncta*; stages at which hibernation takes place; occasional immigration of moths into uninfested districts; preferred breeding-places; connection of wet and dry seasons with the abundance of these insects.

2002. RILEY, C. V. The hitherto unknown life-habits of two genera of bee-flies, *Bombyliidæ*. <Proc. Amer. Assoc. Adv. Sci. for 1880 [14 October], 1881, v. 29, p. 649. Separate: <Salem, Mass., July, 1881, p. 33.

Food-animals and food-habits of *Systœchus oreas* and *Triodites mus*; parallelism in the life-history of *Bombyliidæ* and *Meloidæ*; connection of the abundance of insects of these families in the western United States with the prevalence of *Acrididæ* there; retardation of development in the early stages of these parasites explained as a beneficial characteristic.

2003. RILEY, C. V. A remarkable case of retarded development. <Sci. Amer., 20 August, 1881 [v. 59], n. s., v. 45, p. 116. S.-b. No. 23, p. —.

Report of a case in which eggs of *Caloptenus spretus* remained undeveloped for a period of four and one-half years after being laid; remarks upon the problems involved in the explanation of retarded development.

2004. [RILEY, C. V.] *Blepharoceridæ*. <Amer. Nat., September [23 August], 1881, v. 15, p. 748.

Discovery by J. Q. Adams of pupæ and imagos of *Blepharoceridæ* at Watertown, N. Y.

2005. [RILEY, C. V.] Remarkable case of retarded development. <Amer. Nat., September [23 August], 1881, v. 15, pp. 748–749.

Eggs of *Caloptenus spretus*, buried about 25 cm. (10 inches) under ground, remained unhatched and alive for four and one-half years, and hatched upon being exhumed.

2006. [RILEY, C. V.] Promotion of silk-culture in California. <Amer. Nat., September [23 August], 1881, v. 15, p. 749.

Answer to letter of Mrs. T. H. Hittell; popularization of silk-culture in California; preparation of the fiber for the market.

2007. [RILEY, C. V.] Locust flights in Dakota. >Amer. Nat., September [23 August], 1881, v. 15, pp. 749–750.

Flights of *Caloptenus spretus* in Dakota on 7th and 16th July, 1881; large numbers of *Diplax rubicundula* accompanying the locusts.

2008. [RILEY, C. V.] The Hessian fly. <Amer. Nat., September [23 August], 1881, v. 15, p. 750.

Extensive damages done by *Cecidomyia destructor* in Illinois and Missouri; its abundance in the western prairie States in 1881.

2009. [RILEY, C. V.] The genuine army-worm in the West. <Amer. Nat., September [23 August], 1881, v. 15, p. 750.

Occurrence and ravages of *Leucania unipuncta* in Illinois and Indiana in 1881; these larvæ either from eggs of hibernated moths or of a second brood; other insects mistaken for this in other States; periods of the *Leucania* and influence of the seasons upon it.

2010. [RILEY, C. V.] A new imported enemy to clover. <Amer. Nat., September [23 August], 1881, v. 15, pp. 750–751.

Clover injured by *Phytonomus punctatus* at Barrington, N. Y., in July, 1881.

2011. [RILEY, C. V.] Another enemy of the rice-plant. <Amer. Nat., September [23 August], 1881, v. 15, p. 751.

Rice-plants injured by the larva of *Laphygma frugiperda* in Georgia in the summer of 1881.

2012. [RILEY, C. V.] Canker-worms. <Amer. Nat., September [23 August], 1881, v. 15, p. 751.

Excessive ravages of *Paleacrita vernata* in Tazewell County, Illinois, in 1881.

2013. [RILEY, C. V.] Lepidopterological notes. <Amer. Nat., September [23 August], 1881, v. 15, pp. 751–752.

Advance extract from Bull. No. 6, U. S. Entomological Commission, pp. 55–56. See No. 2026 for synopsis of contents.

2014. RILEY, C. V. The periodical Cicada. <Amer. Agric., August, 1881, v. 40, p. 132, 5 figs. S.-b. No. 23, p. 141.

Brief sketch of the natural history of *Cicada* [= *Tibicen*] *septendecim* and *C.* [= *T.*] *tredecim*, with figures of all stages and of punctured twigs; the reputed stinging by these insects probably done by *Stizus grandis* [= *Sphecius speciosus*]; figure of the *Stizus*; recommends the substitution of the name "periodical Cicada" in place of the name "locust."

2015. RILEY, C. V. Entomological notes. <Farmer's Review, 22 September, 1881. S.-b. No. 42, pp. 54–55. Reprint: <Amer. Nat., [3] December, 1881, v. 15, pp. 1012–1013. See: <Sci. Amer., 11 February, 1882. S.-b. No. 38, p. 1½.

Abstract and critical review of paper by M. Saint-André; attempted explanation of the immunity of grape-vines in sandy soil from the ravages of *Phylloxera vastatrix*.

2016. RILEY, C. V. Notes on *Hydrophilus triangularis*. <Amer. Nat., October [23 September], 1881, v. 15, pp. 814–817, figs. 1–2.

Description and figures of egg-case and figures of eggs and of male imago, with structural details of *Hydrophilus triangularis*; characters and life-history of the larva and pupa; figures of eggs, egg-case, larva, and pupa of *H. piceus* of Europe.

2017. [RILEY, C. V.] Migration of plant-lice from one plant to another. <Amer. Nat., October [23 September], 1881, v. 15, pp. 819–820.

Exposition of J. Lichtenstein's theory that most *Aphididæ*, especially gall-making *Pemphigini*, live upon two different plants in passing through their cycle of development; cites instances in which the host-plants are of different families.

2018. [RILEY, C. V.] The chinch-bug. <Amer. Nat., October [23 September], 1881, v. 15, pp. 820–821.

The abundance of *Blissus leucopterus* is connected with the moisture of the season; extraordinary noxiousness of this insect in the dry season of 1881 in various parts of the United States.

2019. [RILEY, C. V.] Phylloxera laws. <Amer. Nat., October [23 September], 1881, v. 15, p. 821.

Summary of the existing laws regulating the traffic in plants, with a view of preventing the introduction of *Phylloxera vastatrix* into different countries.

2020. [RILEY, C. V.] One-half the vine area of France affected by Phylloxera. <Amer. Nat., October [23 September], 1881, v. 15, p. 821.

Statement that nearly one-fourth of the area of vineyards in France is destroyed by *Phylloxera vastatrix* and as much more attacked; submersion the only sure remedy, and the use of American resisting stocks the only available preventive.

2021. [RILEY, C. V.] London purple and Paris green. <Amer. Nat., October [23 September], 1881, v. 15, p. 821.

London purple more than twice as efficacious and less expensive than Paris green as an insecticide; it needs to be well ground; composition of London purple.

2022. [RILEY, C. V.] Entomologist for the Pacific coast. <Amer. Nat., October [23 September], 1881, v. 15, pp. 821–822.

Notice of attempts made to have a State entomologist appointed in California.

2023. [RILEY, C. V.] *Dilar* in North America. <Amer. Nat., October [23 September], 1881, v. 15, p. 822.

Notice of paper by R. McLachlan.

2024. [RILEY, C. V.] Locusts in Nevada. <Amer. Nat., October [23 September], 1881, v. 15, p. 822.

Statement from Reno [Nev.] Journal that the countless locusts which hatched in western Nevada in the spring of 1881 flew toward the Sierra Nevada without doing any injury.

2025. [RILEY, C. V.] Odor in butterflies. <Amer. Nat., October [23 September], 1881, v. 15, p. 822.

Notice of paper by Miss M. E. Murtfeldt.

2026. RILEY, C. V. General index and supplement to the nine reports on the insects of Missouri. <Bull. No. 6, U .S. Ent. Commission [24 March], 1881, 178 pp.

Order of matter: (1) Introduction. (2) Table of contents. (3) Corrections. (4) Notes and additions. (5) Descriptions of new species and varieties. (6) List of descriptions of adolescent states. (7) List of descriptions, mostly amplified, of species not new. (8) List of illustrations by reports. (9) Classified list of illustrations. (10) General index. (11) Index to food-plants.

2027. [RILEY, C. V.] The permanent subsection of entomology at the recent meeting of the A. A. A. S. <Amer. Nat., 1881, v. 15, November [28 October], pp. 909–912; [3] December, pp. 1008–1011.

Notice of the meeting at Cincinnati, Ohio, August, 1881, with abstracts and notices of papers read.

2028. RILEY, C. V. The new imported clover enemy. <Amer. Nat., November [28 October], 1881, v. 15, pp. 912–914.

Occurrence and habits of *Phytonomus punctatus* in New York; description of the egg and larva of the same; food-plants of the European species of *Phytonomus*.

2029. RILEY, C. V. *Crambus vulgivagellus.* <Amer. Nat., November [28 October], 1881, v. 15, pp. 914–915.

Excessive abundance of this species in the eastern United States in 1881; description of the egg; method of oviposition.

2030. RILEY, C. V. Larval habits of *Sphenophori* that attack corn. <Amer. Nat., November [28 October], 1881, v. 15, pp. 915–916.

Several species of *Sphenophorus* injurious to maize-plants in different parts of the United States; habits and ravages of *S. robustus*.

2031. [RILEY, C. V.] Effect of drought on the Hessian fly. <Amer. Nat., November [28 October], 1881, v. 15, p. 916. See: <N. E. Farmer, 10 December, 1881. S.-b. No. 45, p. 39. <Farmer's Review, 15 December, 1881. S.-b. No. 45, p. 99.

Hot and dry weather dries up and kills *Cecidomyia destructor* and its parasites.

2032. [RILEY, C. V.] *Simulium* from Lake Superior. <Amer. Nat., November [28 October], 1881, v. 15, p. 916.

Notice of paper by H. A. Hagen; larvæ and pupæ from Lake Superior similar to those of *S. pictipes*, but the imagos from the same locality are different.

2033. [RILEY, C. V.] Coleopterous cave fauna of Kentucky. <Amer. Nat., November [28 October], 1881, v. 15, pp. 916, 917.

Notice of H. G. Hubbard's investigations; *Adelops* contains but one species, which seems to be equally common in all caves in the State; *Ancphthalmus* contains several species, and more may be expected to be found.

2034. [RILEY, C. V.] Hemipterological studies. <Amer. Nat., November [28 October], 1881, v. 15, p. 917.

Notice of paper of V. Signoret.

2035. [RILEY, C. V.] Entomology in Buffalo, N. Y. <Amer. Nat., November [28 October], 1881, v. 15, p. 917.

Notice of Vol. 4, No. 1, of the Bulletin of the Buffalo Society of Natural Science; list of entomological papers therein.

2036. [RILEY, C. V.] *Lampyridæ.* <Amer. Nat., November [28 October], 1881, v. 15, p. 917.

Notice of paper by J. L. Leconte.

2037. [RILEY, C. V.] Severe cold and hibernating apple-worms. <Amer. Nat., November [28 October], 1881, v. 15, p. 917.

According to A. J. Cook larvæ of *Carpocapsa pomonella* were killed in their cocoons where exposed to the severe cold of the winter of 1880–1881.

2038. RILEY, C. V. [Address delivered 4 November, 1881, at the cotton convention held in Atlanta, Ga., 2–4 November, 1881.] <[U. S. Department of Agriculture.] Address of Hon. George B. Loring . . . and other proceedings of the cotton convention, Washington, 1881, pp. 19–35. Reprint: <Atlanta Constitution, 5 November, 1881. S.-b. No. 24, p. 34.

Beneficial and injurious influence of insects; methods of counteracting the same; ravages and natural history of and search for means against *Aletia argillacea* [=*xylina*]; improved methods and contrivances for the application of poisons to plants.

2039. RILEY, C. V. The chinch bug. <Amer. Agric., November, 1881, v. 40, p. 476, figs. 1–3. S.-b. No. 42, pp. 21–23.

Ravages, food-plants, and natural history of *Blissus leucopterus*; descriptions and figures of its several stages and of dimorphic form of the imago; effect of wet weather upon it.

2040. [RILEY, C. V.] Retarded development in insects. <Amer. Nat., [3] December, 1881, v. 15, pp. 1007–1008. Reprint: <Proc. Amer. Assoc. Adv. Sci. for 1881, [13 October], 1882, v. 30, pp. 270, 271. Notice: <Gardener's Chronicle, 27 May, 1882, v. 17, pp. 708–709. S.-b. No. 42, p. 31.

Eggs of *Caloptenus spretus* retained their vitality four and one-half years under abnormal environment and then hatched on exposure to normal conditions; speculations on the cause of the phenomena of retardation of development.

2041. [RILEY, C. V.] Preparation of Diptera. <Amer. Nat., [3] December, 1881, v. 15, p. 1008.

Notice of paper of J. Mik.

2042. [RILEY, C. V.] Another herbivorous ground-beetle. <Amer. Nat., [3] December, 1881, v. 15, p. 1011.

Anisodactylus confusus injuring strawberry-plants in California.

2043. [RILEY, C. V.] A disastrous sheep parasite. <Amer. Nat., [3] December, 1881, v. 15, p. 1011.

A parasite (*Trichodectes ovis?*) doing great injury to sheep in Illinois.

2044. [RILEY, C. V.] Locusts in the West. <Amer. Nat., [3] December, 1881, v. 15, p. 1013.

Caloptenus spretus scarce in Colorado and Kansas; *Camnula pellucida* abundant on the Pacific coast; destructiveness of locusts in many parts of South America and of *Pachytylus migratorius* in Turkey; means adopted against the latter.

2045. [RILEY, C. V.] Structure of the claw in *Psocina*. <Amer. Nat., [3] December, 1881, v. 15, pp. 1013–1014.

Notice of paper of H. A. Hagen.

2046. [RILEY, C. V.] Insect collection for sale. <Amer. Nat., [3] December, 1881, v. 15, p. 1014.

Notice of the collection of Coleoptera left by C. Trabrandt.

2047. RILEY, C. V. Peach-tree bark-borer. Important note from Prof. C. V. Riley. <Rural New Yorker, 24 December, 1881, v. 40, p. 866. S.-b. No. 42, p. 13.

Habits and ravages of *Phlœotribus liminaris*; means against bark-borers.

2048. RILEY, C. V. The chinch-bug. <Amer. Agric., December, 1881, v. 40, p. 515, figs. 1–4. S.-b. No. 42, pp. 23–26.

Figures *Anthocoris* [= *Triphleps*] *insidiosus* and *Harpactor* [= *Milyas*] *cinctus* as enemies of *Blissus leucopterus* and *Nysius destructor* [= *angustatus*] and *Piesma cinerea* as likely to be confounded with it; mentions other enemies of the chinch-bug; means against it; importance of irrigation.

2049. RILEY, C. V. On the oviposition of *Prodoxus decipiens*. <Amer. Nat., January, 1882 [30 December, 1881], v. 16, pp. 62–63. Reprint: <Proc. Amer. Assoc. Adv. Sci. for 1881 [13 October],

2049. RILEY, C. V.—Continued.
1882, v. 30, p. 272. Separate: <[Salem, Mass:, February, 1882], p. 3.
Time and manner of oviposition of *Prodoxus decipiens* in stem of *Yucca filamentosa*.

2050. [RILEY, C. V.] Clover insects. <Amer. Nat., January, 1882 [30 December, 1881], v. 16, p. 63.
Notice of paper of J. A. Lintner.

2051. RILEY, C. V. Horn's classification of the *Carabidæ*. <Amer. Nat., January, 1882 [30 December, 1881], v. 16, pp. 63–64.
Notice of paper of G. H. Horn.

2052. [RILEY, C. V.] The butterfly-trees of Monterey again. <Amer Nat., January, 1882 [30 December, 1881], v. 16, p. 64.
Swarming and migrating habits of *Danais archippus*; hibernation of the same.

2053. [RILEY, C. V.] Interest felt in economic entomology in California. <Amer. Nat., January, 1882 [30 December, 1881], v. 16, p. 65.
Notice of a call issued by the Board of State Horticultural Commissioners of California for a State convention to consider horticultural subjects, including means against insects.

2054. [RILEY, C. V.] Obituary. <Amer. Nat., January, 1882 [30 December, 1881], v. 16, p. 65.
Biographical notice of J. D. Putnam; announcement of the death of G. V. Mniszech.

2055. RILEY, C. V. New insects injurious to agriculture. <Amer. Nat., February [25 January], 1882, v. 16, pp. 151–152. Reprint: <Proc. Amer. Assoc. Adv. Sci. for 1881, [13 October], 1882, v. 30, pp. 272–273.
The occurrence of previously unnoticed noxious insects due to, 1, the introduction of species from abroad; 2, previously existing unnoticed species; and 3, the acquisition of new habits by previously known innoxious species; in the last case the acquisition of new habits may be accompanied by the acquisition of new descriptional character, thus constituting a new species; new species thus become developed within brief periods of time.

2056. [RILEY, C. V.] New entomological periodicals. <Amer. Nat., February [25 January], 1882, v. 16, pp. 152–153.
Notice of several prospective periodicals.

2057. [RILEY, C. V.] Locust probabilities for 1882. <Amer. Nat., February [25 January], 1882, v. 16, p. 153.
Favorable prospects of immunity from ravages of *Caloptenus spretus* in 1882.

2058. [RILEY, C. V.] Entomological notes. <Amer. Nat., February [25 January], 1882, v. 16, p. 153.
Notice of J. J. Weir's paper on the "Lepidoptera of the Outer Hebrides," etc.

2059. [RILEY, C. V.] Bibliography of gall literature. <Amer. Nat., March [24 February], 1882, v. 16, pp. 246–247.
Notice of the record of F. Thomas.

2060. RILEY, C. V. A new depredator infesting wheat-stalks. <Amer. Nat., March [24 February], 1882, v. 16, pp. 247–248, fig. 1.

Isosoma allynii French is a species of *Eupelmus* probably parasitic on some of the wheat-stalk feeders and on some species of *Chlorops*; habits and figures of larva and description of female imago of *Isosoma tritici* [p. 247]; comparisons between *I. tritici* and *I. hordei*; alleged habits of *I. lineare* of Europe; relative conspicuousness of the "humeral spot" in European, American, and Australian species of *Isosoma*. See No. 2063.

2061. RILEY, C. V. Further notes on the imported clover-leaf weevil (*Phytonomus punctatus*). <Amer. Nat., March [24 February], 1882, v. 16, pp. 248, 249.

Identity of *Phytonomus opimus* Lec. with *P. punctatus* Fab.; instances in which injurious insects have been overlooked for a long time; probability that plant-feeding Coleoptera imported from Europe will not spread far from the Atlantic coast; some species, injurious in Europe, are thus far innoxious in America; hibernation of and means against *P. punctatus*.

2062. [RILEY, C. V.] Silk-worm eggs; prices and where obtained. <Amer. Nat., March [24 February], 1882, v. 16, pp. 249–250.

Sources from which eggs of *Sericaria mori* can be obtained in the United States for purposes of silk-culture; prices at which eggs are sold by Crozier & Co.

2063. RILEY, C. V. The wheat *Isosoma*. A new depredator infesting wheat-stalks. <Rural New Yorker, 4 March, 1882. S.-b. No. 42, pp. 55–56. See: <Sci. Amer. Suppl., 17 June, 1882. S.-b. No. 37, p. 57.

Description of female imago of *Isosoma tritici*; habits, ravages, and distribution of and means against the same; comparison with related species; a probable parasite of it, described as *Isosoma allynii* by G. H. French, belongs to the genus *Eupelmus*. See No. 2060.

2064. RILEY, C. V. Possible food-plants for the cotton-worm. <Amer. Nat., April [22 March, 1882], v. 16, pp. 327–329. Reprint: <Rept. [U. S.] Com. Agric. for 1881 and 1882, 1882 [January, 1883], pp. 164–166. Separate: <pp. 164–166.

Food-plants of *Aletia xylina*. See No. 2119 for synopsis of contents.

2065. [RILEY, C.V.] Mode of feeding on the larva of *Dytiscus*. <Amer. Nat., April [22 March], 1882, v. 16, p. 330.

Notice of paper of E. Burgess; structure of the mouth of the larva of *Dytiscus*; manner in which this larva feeds.

2066. [RILEY, C. V.] Entomological notes. <Amer. Nat., April [22 March], 1882, v. 16, p. 330.

Brief notices of several articles recently published with items of news.

2067. [RILEY, C. V.] Riley's researches. Orange insects and the cotton-worm; how the orange insect operates and the cure for its ravages; the hibernation of the cotton-worm; settlement of a mooted question. <Florida Daily Times, 29 March, 1882. S.-b. No. 42, pp. 28–29.

Report of interview with C. V. Riley; discovery by W. H. Ashmead that "orange rust" is caused by a mite; habits of and means against the same;

2067. RILEY, C. V.—Continued.

successful application by H. G. Hubbard of an emulsion of kerosene and milk as a means against this mite and against scale-insects; proof of the hibernation of *Aletia argillacea* [=*xylina*] in the extreme south of the United States; means against the *Aletia*.

2068. RILEY, C. V. Prof. C. V. Riley and the Yucca moth. <Gardener's Mo. and Hòrtic., March, 1882, v. 24, p. 92. S.-b. No. 23, pp. 198–199.

Critical review and reply to editorial of T. Meehan.

2069. RILEY, C. V. The *Noctuidæ* in the Missouri entomological reports. <Papilio, March, 1882, v. 2, pp. 41–44. Separate: <N. Y., 1882, 4 pp.

Critical review of paper of A. R. Grote; discussion of the synonymy of the *Noctuidæ* in the Missouri entomological reports.

2070. RILEY, C. V. Silk-culture in the United States. <Sci. Amer., 1 April, 1882 [v. 60], n. s., v. 46, p. 193. S.-b. No. 42, pp. 93–96.

Statement of the dangers to be avoided and the obstacles to be overcome for the successful establishment of silk-culture in the United States.

2071. RILEY, C. V. Little known facts about well known animals. A lecture delivered in the National Museum, Washington, D. C., April 8, 1882. <Washington, April, 1882, 32 pp., figs. See: <National Farmer, 13 July, 1882. S.-b. No. 42, p. 15. <Prairie Farmer, 22 July, 1882. S.-b. No. 46, p. 99.

The entomological subjects include brief and popular illustrated accounts of the life-histories and transformations of the house-fly (*Musca domestica*) and mosquito (*Culex pipiens*); the development of *Trombidium* from *Astoma;* parasitism; truth of the theory of evolution; reasons for the prevalent ignorance of natural history; interest and value of a knowledge of natural history.

2072. RILEY, C. V. Lichtenstein's theory as to dimorphic asexual females. <Amer. Nat., May [24 April], 1882, v. 16, p. 409.

Criticism of J. Lichtenstein's theory that winged female *Aphididæ* and asexual female *Cynipidæ* are larvæ, and their eggs pupæ; errors in the comparison of these forms with the hypermetamorphotic stages of *Meloidæ*.

2073. [RILEY, C. V.] Naphthaline cones for the protection of insect collections. <Amer. Nat., May [24 April], 1882, v. 16, pp. 409–410.

Use of and objections to the use of naphthaline cones; formula of a preferable protective mixture.

2074. [RILEY, C. V.] Injurious insects in California. <Amer. Nat., May [24 April], 1882, v. 16, p. 410.

Notice of treatise of Matthew Cooke.

2075. [RILEY, C. V.] *Sarcophaga lineata* destructive to locusts in the Dardanelles. <Amer. Nat., May [24 April], 1882, v. 16, pp. 410–411.

Notice of communications, by F. Calvert, regarding the parasitic habits of *Sarcophaga lineata*, which preys upon *Œdipoda cruciata*; egg-pods of the same locust destroyed by larvæ of *Callostoma fascipennis*.

2076. [RILEY, C. V.] Parasitic Diptera. <Amer. Nat., May [24 April], 1882, v. 16, p. 411.

Dilophus parasitic in larvæ of *Chætoptria hypericana*; the *Bibionidæ* have hitherto been known only as vegetable feeders in the larval state.

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See No. 2119 for synopsis of contents.

2078. RILEY, C. V. The house-fly. <Prairie Farmer, 13 May, 1882. S.-b. No. 39, p. 122. See: <Colman's Rural World, 15 June, 1882. S.-b. No. 68, p. 194. <Times-Democrat [New Orleans], 24 June, 1882. S.-b. No. 42, p. 31. <N. E. Farmer, 5 August, 1882.

Wide distribution of *Musca domestica*; identity of *M. harpyia* with the species; description of eggs; habits, transformations, and hibernation.

2079. RILEY, C. V. Habits of *Cybocephalus*. <Amer. Nat., June [20 May], 1882, v. 16, p. 514.

Cybocephalus nigritulus feeds on scales of *Chionaspis pinifolii* on *Pinus elliottii* in South Carolina, and *C. californicus* on a scale on apple-trees in California.

2080. [RILEY, C. V.] One effect of the Mississippi floods. <Amer. Nat., June [20 May], 1882, v. 16, pp. 514, 515.

Probability that *Ligyrus rugiceps* will have been drowned out of the region submerged for months by the Mississippi River; liability of the importation of new foes with new seed-plants.

2081. [RILEY, C. V.] *Doryphora decemlineata* in England. <Amer. Nat., June [20 May], 1882, v. 16, p. 515.

A living specimen carried from North America to London, England, in a barrel of potatoes.

2082. [RILEY, C. V.] Dr. Dimmock's inaugural dissertation. <Amer. Nat., June [20 May], 1882, v. 16, p. 515.

Review of G. Dimmock's paper on "The anatomy of the mouth-parts and of the sucking apparatus of some Diptera."

2083. [RILEY, C. V.] The triungulin of *Meloidæ*. <Amer. Nat., June [20 May], 1882, v. 16, p. 515.

The triungulin of *Meloe proscarabæus* was described by J. L. Frisch in 1727.

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Notice of paper of V. T. Chambers; occurrence of the supposed burrow of a tineid larva in a fossil leaf of *Acer* sp.

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Notice of the approaching completion of the classification of the Coleoptera of North America by J. L. Leconte and G. H. Horn.

2086. RILEY, C. V. Hibernation of the army-worm. <Amer. Nat., June [20 May], 1882, v. 16, p. 516.

Confirmation of views in regard to the hibernation of the larvæ of *Leucania unipuncta*; places of oviposition; prospects of extensive injury by these insects in the more northern States in 1882.

2087. RILEY, C. V. Chinch-bug and army-worm prospects. <Rural New Yorker, 27 May, 1882. S.-b. No. 61, p. 27.

Blissus leucopterus abundant in dry weather; *Leucania unipuncta* in wet weather; the latter hibernates principally as a larva; its eggs secreted in old grass and stubble; means against *L. unipuncta*.

2088. RILEY, C. V. Successful management of the insects most destructive to the orange. <Sci. Amer., 27 May, 1882 [v. 60], n. s., v. 46, pp. 335–336, 5 figs.

Treats of *Coccidæ* injurious to the orange; means against the same; use of kerosene emulsion; figures stages of *Mytilaspis pomicorticis* [=*pomorum*], *M. gloveri*, and *M. citricola*.

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Abstract of paper of C. J. Macgowan; capture and sale of two species of ants which build nests in trees; colonization of these ants in orange orchards to destroy injurious insects.

2090. RILEY, C. V. The army-worm *vs.* the clover hay-worm. Remedies for the army-worm. <Rural New Yorker, 10 June, 1882. S.-b. No. 47, pp. 158–159; No. 61, pp. 32–33. Reprint: <Nat. Farmer, 22 June, 1882. S.-b. No. 37, p. 123. <Lancaster Farmer, July, 1882. S.-b. No. 46, p. 104. <Home and Farm, 1 July, 1882. S.-b. No. 37, p. 122.

Abundance of *Leucania unipuncta* and *Asopia costalis* in Alabama and Tennessee; confusion of the army-worm with the clover hay-worm; prevalence of enemies of and means against the former.

2091. RILEY, C. V. Repelling insects by malodorants. <Amer. Nat., July [22 June], 1882, v. 16, p. 596.

Critical review of paper of J. A. Lintner; odorous substances repel insects more by their toxic properties than by their odor; failure of attempts by the use of strongly smelling substances to prevent oviposition; sight, touch, and taste generally more important in insect economy than smell.

2092. [RILEY, C. V.] Habits of *Bittacus apterus*. <Amer. Nat., July [22 June], 1882, v. 16, pp. 596–597.

Notice of paper of C. R. Osten Sacken; locomotion and food-habits of *Bittacus apterus* in California.

2093. RILEY, C. V. Habits of *Coscinoptera dominicana*. <Amer. Nat. July [22 June], 1882, v. 16, p. 598.

Discovery by F. H. King that *Coscinoptera dominicana* is inquilinous in ants' nests in its earlier stages; similar habits of related species.

2094. [RILEY, C. V.] Sun-spots and insect life. <Amer. Nat., July [22 June], 1882, v. 16, pp. 598–599.

Review of paper of A. H. Swinton; dependence of certain insect phenomena on the periods of sun-spots, through the determination by the latter of meteorological conditions.

2095. RILEY, C. V. The silk-worm. No. 1–3. <National Farmer, 13, 20, 27 July, 1882. S.-b. No. 35, p. 15; No. 48, pp. 32, 49.

Nature of the silk-worm; stages, enemies, diseases, races; wintering and hatching of eggs; feeding and rearing of larvæ; the cocoons; spinning and gathering, choking chrysalids; egg-laying, reproduction, reeling, food-plants.

2096. RILEY, C. V. Change of habit; two new enemies of the egg-plant. <Amer. Nat., August [28 July], 1882, v. 16, pp. 678–679.

Sudden acquisition by *Doryphora juncta* and by *Cassida texana* of the habits of feeding on *Solanum melongena*, these species having been found previously on *S. carolinense* and *S. elæagnifolium* respectively; occurrence of *C. texana* on *S. carolinense*; distribution of the two insects.

2097. RILEY, C. V. Notes on *Microgasters*. <Amer. Nat., August [28 July], 1882, v. 16, pp. 679–680.

Critical review of paper of A. S. Packard; synomymical notes on Packard's species.

2098. [RILEY, C. V.] Are honey-bees carnivorous? <Amer. Nat., August [28 July], 1882, v. 16, p. 681.

Observations of Fritz Müller on the carnivorous habits of Brazilian *Apidæ*.

2099. [RILEY, C. V.] The "overflow bugs" in California. <Amer. Nat., August [28 July], 1882, v. 16, pp. 681–682.

Extract from letter of Mrs. A. E. Bush, with introductory remarks; occurrence of *Platynus maculicollis* in such abundance as to become a nuisance.

2100. [RILEY, C. V.] Insects and drouth. <Amer. Nat., September [24 August], 1882, v. 16, p. 745.

Occurrence of excessive drouth in the spring and early summer of 1880 in New England; statement by S. Lockwood of the exceptional abundance of several insects in New Jersey in that year.

2101. RILEY, C. V. Probable sound organs in sphingid pupæ. <Amer. Nat., September [24 August], 1882, v. 16, pp. 745–746.

Occurrence of a peculiar structure on the abdominal joints of the pupæ of certain *Sphingidæ*; genera in which this structure is observed; probable connection of this structure with the function of producing sound as observed in *Sphinx atropos*.

2102. RILEY, C. V. Is *Cyrtoneura* a parasite or a scavenger? <Amer. Nat., September [24 August], 1882, v. 16, pp. 746–747.

Cyrtoneura stabulans bred from pupæ of *Aletia argillacea* [=*xylina*] usual food of this species; doubt whether the species is a parasite or is only a scavenger in decayed pupæ; *Phora aletiæ* merely a scavenger; great liability of pupæ of *Aletia* to decay

2103. [RILEY, C. V.] Habits of *Polycaon confertus* Lec. <Amer. Nat., September [24 August], 1882, v. 16, p. 747.

Polycaon confertus bores in twigs of apple- and pear-trees and grape-vines; the larvæ probably live in the dead and dry wood of forest-trees.

2104. RILEY, C. V. *Dinoderus pusillus* as a museum pest. <Amer. Nat., September [24 August], 1882, v. 16, p. 747.

Dinoderus pusillus feeds on cork and paper lining in an insect box; they occur usually in drugs and other stored and dry vegetal products.

2105. RILEY, C. V. Myrmecophilous Coleoptera. <Amer. Nat., September [24 August], 1882, v. 16, pp. 747–748.

Larvæ and imagos of *Euphoria hirtipes* live in hills of *Formica rufa*; pupæ of *Hymenorus rufipes* in nests of *Formica fusca* and of *H. obscurus* in nests of another species of ant; known myrmecophilous habits of *Cetonia*, *Cremastochilus*, *Euparia castanea* (in nests of *Solenopsis xyloni* [= *geminata*]), *Tenebrionidæ*, and *Anthicus*.

2106. [RILEY, C. V.] Discontinuance of publication. <Amer. Nat., September [24 August], 1882, v. 16, p. 748.

Announcement of the discontinuance of publication of "Revue Coléoptérologique;" critical review of the same.

2107. RILEY, C. V. Buffalo tree-hopper injurious to potatoes. <Amer. Nat., October [28 September], 1882, v. 15, p. 823.

Habits, food-plants, and ravages of *Ceresa bubalus*.

2108. [RILEY, C. V.] Moths attracted by falling water. <Amer. Nat., October [28 September], 1882, v. 16, p. 826.

Notice of paper of J. S. Gardner; gleaming water-falls in Iceland as attractive to moths as artificial light would be.

2109. [RILEY, C. V.] A new museum pest. <Amer. Nat., October [28 September], 1882, v. 16, p. 826. Reprint: <Psyche, September–October, 1882 [1 March, 1884], v. 3, p. 408.

Perimegatoma variegatum as a pest in collections of insects.

2110. [RILEY, C. V.] Fleas feeding on lepidopterous larvæ. <Amer. Nat., October [28 September], 1882, v. 16, p. 826.

Notice of paper of C. J. Boden; abundance of fleas (*Pulex* sp.) where few or no warm-blooded animals occur may be explained by the feeding of the fleas on insects.

2111. [RILEY, C. V.] [*Gasteracantha cancer.*] <Gonzales [Tex.] Inquirer, 30 September, 1882. S.-b. No. 42, p. 15.

Habits of *Gasteracantha cancer*; the male unknown.

2112. RILEY, C. V. *Cicada septendecim.* <Gardener's Mo. and Hortic., September, 1882, v. 24, pp. 274–275. S.-b. No. 38, p. 42; No. 39, p. 6; No. 42, pp. 2–4.

Orthography of the names *C.* [= *Tibicen*] *septendecim* and *C.* [= *T.*] *tredecim*; natural relations of the same; indistinguishability of the species of certain genera; dimorphic forms more numerous than usually recognized; *Massospora cicadina* parasitic on *Cicada*.

2113. RILEY, C. V. Remarkable felting caused by a beetle. <Rural New-Yorker, 14 October, 1882, v. 41, pp. 699–700. S.-b. No. 42, p. 16. Reprint, with changes: <Amer. Nat. [2] December, 1882, v. 16, pp. 1018–1019.

Description of the felting of the interior of a pillow-ticking with fragments of feathers formed by the ravages of *Attagenus megatoma* within a feather pillow.

2114. RILEY, C. V. The buckeye-leaf stem-borer. <Amer. Nat., November [28 October], 1882, v. 16, pp. 913–914. See: <Sci. Amer. Suppl., 16 December, 1882. S.-b. No. 47, p. 145.

Sericoris instrutana ‡Claypole = *S.* [= *Steganoptycha*] *claypoleana* n. sp.; habits and food-plants of this species and of *Proteoteras æsculana*; distinctions between these two species.

2115. [RILEY, C. V.] Efficacy of chalcid egg-parasites. <Amer. Nat., November [28 October], 1882, v. 16, pp. 914–915. See: <Prairie Farmer, 2 December, 1882. S.-b. No. 60, p. 123.

Beneficial influence and occasional vast abundance of egg-parasitic *Chalcididæ* and especially of *Trichogramma pretiosa* and of *Telenomus* sp.

2116. [RILEY, C. V.] On the biology of *Gonatopus pilosus* Thoms. <Amer. Nat., November [28 October], 1882, v. 16, p. 915.

Notice of paper of J. Mik; parasitism of *Gonatopus pedestris* on *Athysanus maritima*, and of *G. pilosus* on *Deltocephalus xanthoneurus*; transformations and habits of *G. pilosus*; probable parasitism of a *Gonatopus* (*G. contortulus*?) on *Amphiscepa bivittata*.

2117. RILEY, C. V. Species of *Otiorhynchidæ* injurious to cultivated plants. <Amer. Nat., November [28 October], 1882, v. 16, pp. 915–916. See: <Sci. Amer. Suppl., 16 December, 1882. S.-b. No. 47, p. 145.

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2118. [RILEY, C. V.] Bombyliid larvæ destroying locust eggs in Asia Minor. <Amer. Nat., November [28 October], 1882, v. 16, pp. 916–917.

Notice of and extract from communications of F. Calvert; parasitic habits of *Callostoma fascipennis*; similarity of habits of *Bombyliidæ* in Asia and in North America; probability that the larvæ of *Cantharis vesicatoria* and of other *Meloidæ* will be found to feed on eggs of *Acrididæ*.

2119. RILEY, C. V. Report of the Entomologist. <Ann. Rept. [U. S.] Commissioner Agric. for 1881 and 1882, 1882 [January, 1883], pp. 61–214, 20 pl. Separate: <Washington, 1 December, 1882, pp. 8+167, 20 pl.

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2120. [RILEY, C. V.] A new rice stalk-borer: Genus-grinding. <Amer. Nat., [2] December, 1882, v. 16, pp. 1014–1015.

Extract from Rept. [U. S.] Commis. Agric. for 1881 and 1882, pp. 134–135, with additional remarks; *Chilo oryzæellus* = *Diphryx prolatella*; *Diphryx* Grote founded on a mutilated specimen, with mistake of maxillary for labial palpi.

2121. [RILEY, C.V.] A butterfly larva injurious to pine-trees. <Amer. Nat., [2] December, 1882, v. 16, pp. 1015–1016.

Habits and ravages of *Pieris menapia* on yellow-pine and tamarack in Washington Territory.

2122. [RILEY, C. V.] The army-worm in 1882. <Amer. Nat., [2] December, 1882, v. 16, p. 1017.

Occurrence of *Leucania unipuncta* in great abundance and with disastrous effects, especially in southern United States in 1882.

2123. [RILEY, C. V.] The wheat-stalk worm on the Pacific coast. <Amer. Nat., [2] December, 1882, v. 16, pp. 1017–1018.

Isosoma tritici injuring wheat-stalks in Washington Territory; reference to prior notices of this insect.

2124. [RILEY, C. V.] Deserved honor. <Amer. Nat., [2] December, 1882, v. 16, p. 1018.

Notice of the appointment of Eleanor A. Ormerod to be consulting entomologist to the Royal Agricultural Society of Great Britain.

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Notice of G. Mayr's "Die europäischen Arten der gallenbewohnenden Cynipiden."

2126. RILEY, C. V. Emulsions of petroleum and their value as insecticides. <Rural New Yorker, 9 December, 1882, v. 41, pp. 833, 834. S.-b. No. 42, pp. 17–18.

Results of experiments made upon methods of using petroleum as an insecticide without injury to plants; soap and milk emulsions the most available; methods of preparing the same.

2127. RILEY, C. V. The bean-weevil. <Rural New Yorker, 9 December, 1882, v. 41, p. 835. S.-b. No. 42, p. 18.

Answer to inquiry of R. J. B.; habits of and means against *Bruchus fabæ*.

2128. RILEY, C. V. The "cluster-fly." <Prairie Farmer, 23 December, 1882, v. 54, p. 7. S.-b. No. 42, pp. 16–17. Reprint: <Amer. Nat., [5] January, 1883, v. 17, pp. 82–83.

Habits and synonymy of *Pollenia rudis*; notice of other accounts of the swarming of Diptera. See No. 2174.

2129. RILEY, C. V. Darwin's work in entomology. <Proc. Biol. Soc. Wash., 1882, v. 1, pp. 70–80.

Analysis of the interest shown by C. R. Darwin in entomology and of his contributions to the same.

2130. RILEY, C. V. The cotton-worm. <Western Farmer's Almanac for 1883, 1882, p. 40. S.-b. No. 42, p. 71.

Various theories hitherto held in regard to the hibernation of *Aletia argillacea* [=*xylina*]; proof of its hibernation; seasons and conditions of development of the first brood of the year; precautionary measures to be adopted.

2131. RILEY, C. V. Pyrethrum, an important insecticide. <Western Farmer's Almanac for 1883, 1882, pp. 41–42. S.-b. No. 42, p. 49. See: <Prairie Farmer, 27 January, 1883. S.-b. No. 42, pp. 56–58.

Condensed account of the history of the use of pyrethrum flowers as an insecticide; cultivation of the plants and preparation of the powder; methods of its application; experiments in the cultivation of the plants.

2132. [RILEY, C. V.] New lists of North American Lepidoptera. <Amer. Nat., [5] January, 1883, v. 17, pp. 80–82.

Reviews of lists of Brooklyn Entomological Society, of C. H. Fernald and A. R. Grote.

2133. [RILEY, C. V.] Naphthaline cones. <Amer. Nat., [5] January, 1883, v. 17, pp. 83, 84.

The cones stain the paper lining of boxes; they seem to destroy mites and *Psoci* very soon, but have little effect on *Dermestidæ*.

2134. RILEY, C. V. Emulsions of petroleum as insecticides. <Sci. Amer., 6 January, 1883 [v. 62], n. s., v. 48, p. 3. S.-b., No. 42, pp. 4–7.

Notice of experiments made, under author's direction, in 1882, in the use of emulsions of kerosene oil; report of H. G. Hubbard upon experiments made by him; critical review of S. F. Chapin's "Scale insects on deciduous and ornamental trees;" effect of pure kerosene, of emulsions, and of lye upon trees.

2135. RILEY, C. V. Entomological notes. <Rural New Yorker, 13 January, 1883. S.-b. No. 42, p. 78. See: <Amer. Nat., 1883, v. 17, pp. 198–199.

1. A new enemy to wax-beans; extract from letter of G. H. Stone, on the food-plants, habits, and ravages of *Epilachna corrupta;* distribution of the same. 2. Spread of the 12-punctured asparagus beetle; increasing noxiousness of *Crioceris 12-punctata* recorded from near Baltimore, Md., by O. Lugger; comparative description of this species with *C. asparagi*. 3. An internal mite in fowls; presence of *Cytoleichus sarcoptoides* in lungs and other parts of diseased chickens.

2136. [RILEY, C. V.] The "lignified snake of Brazil." <Evening Star [Washington, D. C.], 20 January, 1883, v. 61, p. 2. S.-b. No. 42, pp. 59–60. Reprint: <Sci. Amer. Suppl., 17 February, 1883. See: <Science, 23 February, 1883, v. 1, p. 84.

Discussion of a specimen of problematical character, supposed to be the burrow of a larva under bark; notice of writings upon the subject; frequency with which the true nature of natural objects is mistaken; letter from J. H. Hutchins accompanying a gall of *Cecidomyia vitis-pomum* mistaken for a hybrid fruit.

2137. RILEY, C. V. Utilization of ants in horticulture. <Sci. Amer., 27 January, 1883 [v. 62], n. s., v. 48, p. 49. S.-b., No. 42, pp. 65–66.

Abstracts of papers of C. J. Macgowan and H. C. McCook, with additional notes; the introduction of ants might involve objectionable consequences; probability that they would not be of service against *Coccidæ*.

2138. RILEY, C. V. Natural sugaring. <Amer. Nat., February [31 January], 1883, v. 17, pp. 197–198. Reprint: <Country Gentl., 31 May, 1883, v. 48. S.-b. No. 42*a*, p. 297.

Lachnus platanicola n. sp. [p. 198], abundant in 1882 on sycamore trees; description of the species; attraction of great numbers of insects to its saccharine exudations, and growth of *Fumago salicina* upon these exudations.

2139. [RILEY, C. V.] *Trogoderma tarsale* as a museum pest. <Amer. Nat., February [31 January], 1883, v. 17, p. 199.

Notice of paper of F. H. Snow; remarks on the abundance and ravages of *Trogoderma tarsale*; habits of its larva.

2140. [RILEY, C. V.] Phylloxera in California. <Amer. Nat., February [31 January], 1883, v. 17, pp. 199–200.

Phylloxera vastatrix in California is most injurious in moist soils.

2141. RILEY, C. V. The hibernation of *Aletia xylina* [Say] in the United States a settled fact. <Sci. Amer., 3 February, 1883, v. 48, p. 68. S.-b. No. 42, pp. 66–67. Reprint: <Proc. Amer. Assoc. Adv. Sci. for 1882, 1883, v. 31, pp. 468–469. Separate: <Salem, Mass., July, 1883, pp. 468–469. Abstract: <Amer. Nat., April [15 March], 1883, v. 17, pp. 420–421. <Nature, 28 December, 1882, v. 27, p. 214.

Proof of the hibernation of *Aletia xylina* as a moth and of the perpetual existence of the species in Florida.

2142. [RILEY, C. V.] Fostering the study of economic entomology. <Rural New-Yorker, 12 February, 1883. S.-b. No. 42, p. 58. Reprint: <Amer. Nat., April [15 March], 1883, v. 17, p. 420.

Efforts of the French for the promotion of economic entomology.

2143. [RILEY, C. V.] Diseases of the chinch-bug. <Rural New-Yorker, 17 February, 1883. S.-b. No. 42, p. 58.

Note concerning paper of S. A. Forbes on two fungus parasites of *Blissus leucopterus*.

2144. R[ILEY], C. V. [Instinct of *Cicada* [= *Tibicen*] *septendecim*.] <Amer. Nat., March [21 February], 1883, v. 17, p. 322.

Remarks on note of E. W. Claypole; sense of direction in insects.

2145. [RILEY, C. V.] Food-habits of *Megilla maculata*. <Amer. Nat., March [21 February], 1883, v. 17, pp. 322–323.

Summary of S. A. Forbes' observations upon the food of *Megilla maculata*; results of other observations on this subject.

2146. [RILEY, C. V.] Clothes-moths observed in the United States. <Amer. Nat., March [21 February], 1883, v. 17, p. 323.

Notice of paper by C. H. Fernald.

2147. RILEY, C. V. Entomological notes. <Rural New Yorker, 27 February, 1883. S.-b. No. 42, p. 58. See: <Amer. Nat., April [15 March], 1883, v. 17, pp. 419–420.

Abstract of the rules of the international convention at Berne for the prevention of *Phylloxera* ravages; their adoption by Belgium.

2148. RILEY, C. V. Notice of an illustrated essay on the *Noctuidæ* of North America. <Bull. Brooklyn Ent. Soc., February, 1883, v. 5, pp. 77–79. Separate: <[Brooklyn, N. Y., 1883], 4 pp.

Critical review of A. R. Grote's essay.

2149. RILEY, C. V. Concerning canker-worms. <Indiana Farmer, 3 March, 1883. S.-b. No. 56, p. 69. <Prairie Farmer, 3 March, 1883. S.-b. No. 56, p. 69. <Pacific Rural Press, 10 March, 1883. S.-b. No. 54, p. 15. <Lancaster Farmer, March, 1883. S.-b. No. 56, p. 72. <Gardener's Mo. and Hortic., April, 1883, v. 25. S.-b.No. 42*a*, p. 631.

Description of *Paleacrita vernata* and *Anisopteryx pometaria;* ravages of the former; request for information; method of observation.

2150. RILEY, C. V. Dipterous enemies of the *Phylloxera vastatrix*. <Ca. Ent., February [9 March], 1883, v. 15, p. 39.

Critical review of paper of T. W. Fyles; the characters given of *Diplosis grassator* are insufficient to distinguish the species; galls of *Phylloxera vastatrix* inhabited by *Leucopis phylloxeræ* Riley MS.; comparison of the early stages of these two Diptera.

2151. [RILEY, C. V.] The food relations of the *Carabidæ* and *Coccinellidæ*. <Amer. Nat., April [15 March], 1883, v. 17, pp. 417–419.

Summary of S. A. Forbes's observations on the food relations of the *Carabidæ* and *Coccinellidæ*.

2152. [RILEY, C. V.] Relations of the *Carabidæ* and *Coccinellidæ* to birds. <Amer. Nat., April [15 March], 1883, v. 17, p. 419.

Reprint of S. A. Forbes's summary, with note; *Coccinellidæ* not eaten by birds; *Carabidæ* eaten in proportion as they have phytophagous habits.

2153. [RILEY, C. V.] Viviparity in a moth. <Amer. Nat., April [15 March], 1883, v. 17, p. 420.

Notes Fritz Müller's discovery of a moth seen to deposit living larvæ.

2154. [RILEY, C. V.] Damage to silver-plate by insects. <Amer. Nat., April [15 March], 1883, v. 17, p. 420.

Holes in silver-plate said to have been made by *Niptus hololeucus*.

2155. RILEY, C. V. Possible food-plants of the cotton-worm. <Amer. Nat., April [15 March], 1883, v. 17, pp. 421–422.

Notice of paper of J. S. Bailey; occurrence of newly issued imagos of *Aletia xylina* at Karner, N. Y., 7 and 8 October, 1882, proving that the larva of this insect feeds upon some genus of plants other than *Gossypium*.

2156. [RILEY, C. V.] *Agrotis messoria* Harr. *vs. Agrotis scandens* Riley. <Amer. Nat., April [15 March], 1883, v. 17, p. 422, 2 figs.

Critical review of views of A. R. Grote; *Agrotis lycarum*, *A. repentis*, and *A. cochranii* = *A. messoria*; *A. scandens* is a distinct species; comparison of the imagos; figures larvæ and imagos of the two species.

2157. [RILEY, C. V.] An internal mite in fowls. <Amer. Nat., April [15 March], 1883, v. 17, pp. 422–423.

Lungs, bronchia, and linings of thoracic and abdominal cavities of a sick chicken covered with *Cytoleichus sarcoptoides* Mégnin; habitat of the same in fowls in Europe; diseases caused by it.

2158. [RILEY, C. V.] Prevalence of the screw-worm in Central America. <Amer. Nat., April [15 March], 1883, v. 17, p. 423.

Extract from letter of J. C. Zeledon on the abundance and ravages of *Lucilia macellaria* and related flies in Costa Rica.

2159. R[ILEY], C. V. Dried leaves as food for lepidopterous larvæ. <Amer. Nat., April [15 March], 1883, v. 17, pp. 423–424.

Review of paper of A. H. Mundt; larvæ successfully fed upon fresh leaves transported from a distance under pressure; chopping the leaves would possibly permit of more rapid curing and more convenient packing.

2160. [RILEY, C. V.] Lepidopterological notes. <Amer. Nat., April [15 March], 1883, v. 17, p. 424.

Duplication of descriptions of the early stages of Lepidoptera to be avoided; notice of Mrs. C. H. Fernald's list of *Noctuidæ* taken in Orono, Me.

2161. [RILEY, C. V.] Obituary. <Amer. Nat., April [15 March], 1883, v. 17, p. 424.

Obituary notices of G. W. Belfrage and F. W. Mæklin.

2162. R[ILEY], C. V. Mosquitoes *vs.* malaria. <Sci. Amer., 14 April, 1883, v. 48, pp. 224–225. S.-b. No. 42, pp. 63–64; No. 67, p. 8. Abstract: <Amer. Nat., May [18 April], 1883, v. 17, p. 549.

Criticism of the views of Dr. A. F. A. King in support of the thesis that malarial disease is the result of inoculation of the body with malarial poison by the bites of insects; citation of twenty correspondencies in the conditions affecting the prevalence of mosquitoes [*Culicidæ*] and malarial disease.

2163. RILEY, C. V. Jumping seeds and galls. <Sci. Amer., 14 April, 1883, v. 48, p. 228, fig. S.-b. No. 42, pp. 61–63; No. 67, p. 2.

Figures of larva, pupa, and imago of *Carpocapsa saltitans*, with figures and description of seeds inhabited by the larva of this moth, and description of the plant bearing these seeds; vernacular names of plant and insect; movements imparted to the seeds by the insects and by *Cynips q.-saltatorius* to the galls of the same.

2164. RILEY, C. V. Reports of experiments, chiefly with kerosene, upon the insects injuriously affecting the orange-tree and the cotton-plant, made under the direction of the entomologist. <Bull. No. 1, Div. Ent. U. S. Dept. Agric., [17 April], 1883, 62. pp.

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2165. RILEY, C. V. Reports of observations on the Rocky Mountain locust and the chinch-bug, together with extracts from the correspondence of the division on miscellaneous insects. <Bull. No. 2, Div. Ent. U. S. Dept. Agric., [17 April], 1883, 36. pp. Second edition, 16 September, 1883.

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2166. [RILEY, C. V.] Insects as food for man. <Amer. Nat., May [18 April], 1883, v. 17, pp. 546–547.

Summary of Max Buchner's observations on the insects used as food by the Bantus tribe of negroes.

2167. RILEY, C. V. Number of molts and length of larval life as influenced by food. <Amer. Nat., May [18 April], 1883, v. 17, pp. 547–548.

Variability in habits and characters of insects; periods and number of molts observed in larvæ of *Tenebrio molitor*, *T. obscurus* and *Trogoderma tarsale*; conclusion that insufficient food retards development and occasions frequent molting.

2168. [RILEY, C. V.] Entomological notes. <Amer. Nat., May [18 April], 1883, v. 17, pp. 549–550.

Brief notes on recent publications.

2169. RILEY, C. V. Larval stages and habits of the bee-fly *Hirmoneura*. <Science, 27 April, 1883, v. 1, pp. 332–334, figs. 1–3. S.-b. No. 42, p. 52.

Summary of the life-history of *Hirmoneura obscura* condensed from Handlirsch, and from Brauer; figures the several stages; correspondences of the structure and early history of the larva; predictions in reference to the larvæ of *Bombyliidæ*.

2170. RILEY, C. V. The capitalizing of specific names. <Papilio, March [April], 1883, v. 3, p. 62.

Inquiry as to the use and purpose of capitalizing specific names.. See No. 2257.

2171. RILEY, C. V. Observations on the fertilization of Yucca and on structural and anatomical peculiarities in Pronuba and Prodoxus. <Gardener's Mo. and Hortic. April, 1883, v. 25, pp. 118–119. S.-b. No. 51, p. 122½. Reprint: <Proc. Amer. Assoc. Adv. Sci. for 1882, 1883, v. 31, pp. 467–468. Separate: <Salem. Mass., July, 1883, pp. 467–468. Abstract: <Amer. Nat., February [31 January], 1883, v. 17, p. 197.

Description of the manner in which *Pronuba yuccasella* gathers the pollen in flowers of *Yucca*; the work of this species necessary for the fertilization of the capsular species of *Yucca*, the irregularity of whose fruit is due to its punctures; description of the egg and of the manner of oviposition of this species.

2172. RILEY, C. V. The potato-stalk borer. <Rural New Yorker, 12 May 1883. S.-b. No. 42*a*, p. 213.

Answer to inquiry; life-history and means against *Baridius* [= *Trichobaris*] *trinotata*.

2173. RILEY, C. V. Jumping seeds and galls. <Proc. U. S. Nat. Mus., 12 May, 1883, v. 5, pp. 632–635, fig. Separate: <[Washington, 1884], pp. 632–635, fig.

Description of seeds of "arrow-weed"; their motions caused by larvæ of *Carpocapsa saltitans*; figures of the seeds and of the larva, pupa, and imago of the *Carpocapsa*; habits and seasons of the same; description of the plant bearing these seeds; character and motions of the gall of *Cynips q.-saltatorius*.

2174. RILEY, C. V. Note on cluster-flies. <Proc U. S. Nat. Mus., 12 May, 1883, v. 5, pp. 636–637.

Habits of *Pollenia rudis*; notice of recorded cases of swarming among the Diptera. See No. 2128.

2175. [RILEY, C. V.] The new classification of the Coleoptera of North America. <Amer. Nat., June [17 May], 1883, v. 17, pp. 660–661.

Notice of work of J. L. Leconte and G. H. Horn.

2176. RILEY, C. V. A pretty and unique gall-making tortricid. <Amer. Nat., June [17 May], 1883, v. 17, p. 661, fig. 1.

Description and figure of imago of *Grapholitha ninana* n. sp. reared from galls on stems of *Acacia filicina* in Arizona.

2177. [RILEY, C. V.] Simulium feeding on other insects. <Amer. Nat., June [17 May], 1883, v. 17, pp. 661–662.

Comment on note of H. A. Hagen.

2178. [RILEY, C. V.] Synopsis of the N. A. *Heliothinæ*. <Amer. Nat., June [17 May], 1883, v. 17, pp. 662–663.

Review of paper of J. B. Smith; nature of the generic characters of *Noctuidæ*.

2179 [RILEY, C. V.] Death of Professor Zeller. <Amer. Nat., June [17 May], 1883, v. 17, p. 663.

Obituary notice of P. C. Zeller.

2180. [RILEY, C. V.] Protection of insect collections. <Amer. Nat., June [17 May], 1883, v. 17, pp. 663–664.

Power of the larvæ of *Dermestidæ* to endure the effects of certain insecticides; prerequisites more important than insecticides; seasons when collections are most endangered.

2181. [RILEY, C. V.] Cocoon of *Telea polyphemus*. <Amer. Nat., June [17 May], 1883, v. 17, p. 664.

Answer to inquiry of H. Morris; cocoon of *Telea polyphemus* usually falls to the ground with the leaves, yet quite frequently it is attached to twigs and does not fall to the ground.

2182. [RILEY, C. V.] The sucking organs of bees, wasps, and flies. <Amer. Nat., June [17 May], 1883, v. 17, pp. 664–665.

Notice of paper of K. Kraepelin.

2183. [RILEY, C. V.] The "pine moth of Nantucket." <Amer. Nat., June [17 May], 1883, v. 17, pp. 665–666.

Critical review of paper of S. H. Scudder.

2184. [RILEY, C. V.] Entomological notes. <Amer. Nat., June [17 May], 1883, v. 17, pp. 666–667.

Brief notes on recent publications.

2185. RILEY, C. V. Elephantiasis or Filaria disease. <Science, 18 May, 1883, v. 1, pp. 419–421, fig. S.-b. No. 42, p. 51, fig.

Criticism of the views of Dr. A. F. A. King; notice of the writings of P. Manson and others on the connection of *Culex musquito* with the life-history of *Filaria sanguinis-hominis* and on the production of elephantiasis and related diseases by *Filaria*.

2186. RILEY, C. V. *Nemestrinidæ*. <Science, 8 June, 1883, v. 1, p. 513.

Note on papers concerning *Nemestrinidæ*; supplementary to No. 2169.

2187. RILEY, C. V. The corn-root *Diabrotica*. <Rural New-Yorker, 9 June, 1883. S.-b. No. 54, p. 42.

Increasing distribution of *Diabrotica longicornis*; means against it.

2188. RILEY, C. V. Elm-leaf beetle. <Sci. Amer., 16 June, 1883, v. 48. S.-b. No. 42*a*, p. 265.

Reply to inquiries concerning *Galeruca xanthomelæna*.

2189. RILEY, C. V. A unique and beautiful noctuid. <Amer. Nat., July [20 June], 1883, v. 17, pp. 788–790, fig.

Figure of imago of *Cirrhophanus triangulifer*; description of its generic characters; its affinities, synonyms, and probable habits.

2190. [RILEY, C. V.] Insects affecting stored rice. <Amer. Nat., July [20 June], 1883, v. 17, p. 790.

Lists of insects, chiefly Coleoptera, found in a lot of damaged rice from the Chinese centennial exhibit; two species are carnivorous.

2191. RILEY, C. V. Hypermetamorphoses of the *Meloidæ*. <Amer. Nat., July [20 June], 1883, v. 17, pp. 790–791.

Proposal of simpler and more natural terms to designate the stages of development of larvæ of *Meloidæ*.

2192. [RILEY, C. V.] Entomological notes. <Amer. Nat., July [20 June], 1883, v. 17, pp. 792–793.

Comments on recent entomological publications; items of news.

2193. RILEY, C. V. The grape Phylloxera in France. <Science, 22 June, 1883, v. 1, pp. 576–578.

Review and criticism of the report of the *Commission supérieure du Phylloxera*.

2194. RILEY, C. V. Fig insects. <Science, 29 June, 1883, v. 1, p. 599.

Review of S. S. Saunders's views on fig insects.

2195. RILEY, C. V. Egg-punctures on raspberry- and grape-vines, etc. <Rural New-Yorker, 30 June, 1883, v. 42, p. —. S.-b. No. 42, p. 56.

Answer to inquiry of T. H. G.; oviposition of *Œcanthus niveus* in stems of raspberry- and grape-vines, and of *Ceresa bubalus* in twigs of apple-trees; habits and ravages of and means against the former; the latter seldom very injurious.

2196. RILEY, C. V. Silk culture in the United States. <Rural New-Yorker, 14 July, 1883, v. 42, p. —. S.-b. No. 42*a*, p. 531.

Revival of interest in silk culture in the United States; experience of the year; relation of silk culture to import duties; warning against too high expectations as to profits; notes on manuals of silk culture.

2197. RILEY, C. V. Economic entomology of Iowa. <Sci. Amer., 14 July, 1883, v. 49, p. —. S.-b. No. 53, p. 147.

Review of work done in Iowa, especially of papers of J. N. Dixon, H. Osborn, and A. B. Walton.

2198. [RILEY, C. V.] Insect plagues. <Boston Herald, 22 July, 1883, p. —. S.-b. No. 42, pp. 53–54; No. 67, p. 11. Extract: <Mirror and Farmer, 26 July, 1883, v. 35. S.-b. No. 42, pp. 126–127.

Newspaper interview; seasons, habits, ravages of and means against *Calopteenus atlanis*, *Nematus erichsonii*, and *Orgyia leucostigma*.

2199. RILEY, C. V. Report by C. V. Riley. <Proc. U. S. Nat. Mus., 27 July, 1883, v. 6, pp. 104–105. Reprint: <Sci. Amer. Suppl., 13 October, 1883, v. 16, p. 6486.

Note to F. Humbert's *Lucilia macellaria* infesting man; references to other mentions of it; its distribution and means against it.

2200. RILEY, C. V. Emulsions of petroleum and their value as insecticides. <Proc. Amer. Assoc. Adv. Sci. for 1882, 1883, v. 31, pp. 469–470. Separate: <Salem, Mass., July, 1883, pp. 469–470. Reprint: <Kansas City Rev. of Science and Industry, November, 1883, v. 7, pp. 447–448. S.-b. No. 42, p. 124. Extract: <Sci. Amer., 19 November, 1883, v. 49, p. 294. S.-b. No. 51, p. 153.

Description of modes of making emulsions of petroleum for use against insects.

2201. [RILEY, C. V.] The old, old question of species. <Amer. Nat., September [15 August], 1883, v. 17, p. 975.

Comments upon the discussion between H. A. Hagen and W. H. Edwards; views of both parties extreme; views as to the true nature of species.

2202. [RILEY, C. V.] *Myrmecophila.* <Amer. Nat., September [15 August], 1883, v. 17, pp. 975–976.

Record of recent captures of *Myrmecophila* in Oregon and District of Columbia; record of former captures in the United States; habits of the genus.

2203. [RILEY, C. V.] Salt-water insects used as food. <Amer. Nat., September [15 August], 1883, v. 17, pp. 976–977.

Occurrence of *Ephydra* (*hians*?) in Lake Tetscoco, Mexico; *E. gracilis* found in Great Salt Lake, Utah, and *E. californica* in lakes in California; account by W. H. Brewer of the manner in which the last-named species is collected and used for food by the Indians living near Mono Lake.

2204. [RILEY, C. V.] Food-plants of *Samia cynthia.* <Amer. Nat., September [15 August], 1883, v. 17, p. 977.

Review of paper of H. H. Birney; list of plants on which *Samia* [= *Attacus*] *cynthia* has hitherto been found feeding; some of these are the favorite food-plants of *Callosamia* [= *Attacus*] *promethea.*

2205. [RILEY, C. V.] Bitten by an aphid? <Amer. Nat., September [15 August], 1883, v. 17, p. 977.

Letter of S. Swan, with answer; *Siphonophora* [= *Nectarophora*] *rudbeckiæ* common on *Solidago* and *Rudbeckia*; the biting was probably caused by ants or some other insect that escaped notice at the time.

2206. RILEY, C. V. *Steganoptycha claypoleana.* <Amer. Nat., September [15 August], 1883, v. 17, p. 978. Reprint: <Papilio, September–December, 1883, v. 3, p. 191.

Comparative description of *Steganoptycha claypoleana* with *Proteoteras æsculanum*; habits of the former.

2207. R[ILEY], C. V. Extermination and restriction of Phylloxera in Switzerland. <Rural New-Yorker, 25 August, 1883, v. 42. S.-b. No. 49, p. 74.

Notice of report of Valery-Mayet.

2208. RILEY, C. V. Hackberry psyllid galls. <Ca. Ent., August [5 September], 1883, v. 15, pp. 157–159, figs. 6, 7.

Critical review of paper of T. W. Fyles; *Phylloxera vastatrix* has many parasites and *Celtis* is attacked by many species of gall-insects; characters of *Pachypsylla* n. g. [p. 157]; figures of galls of *P. celtidis-venusta* and *P. c.-mamma*; derivation and orthography of the generic term *Celtis.*

2209. RILEY, C.V. Some recent discoveries in reference to Phylloxera. <Science, 7 September, 1883, v. 2, p. 336. S.-b. No. 42, pp. 68, 69. Reprint: <Proc. Amer. Assoc. Adv. Sci. for 1883, 1884, v. 32, p. 320. Separate: <Salem, Mass., July, 1884, p. 320. <Amer. Nat., December [28 November], 1883, v. 17, p. 1288.

Summary of the cycle of development of the genus *Phylloxera*; character of the gall of *P. spinosa* and location of the impregnated egg of the species.

2210. RILEY, C. V. The *Psyllidæ* of the United States. <Science, 7 September, 1883, v. 2, p. 337. S.-b. No. 42, pp. 67–68. Reprint: <Proc. Amer. Assoc. Adv. Sci. for 1883, 1884, v. 32, p. 319. Separate: <Salem, Mass., July, 1884, p. 319.

Characteristics and economic importance of *Psyllidæ*; status of the present knowledge of this family in the United States; list of new genera and species; food-plants of the same; characteristics of the eggs and young of *Psyllidæ*.

2211. RILEY, C. V. Improved method of spraying trees for protection against insects. <Science, 14 September, 1883, v. 2, p. 378. S.-b. No. 42, p. 68. Reprint: <Proc. Amer. Asoc. Adv. Sci. for 1883, 1884, v. 32, pp. 466–467. Separate: <Salem, Mass., July, 1884, pp. 466, 467.

Description of apparatus, especially of "cyclone nozzle" and adjustable hose; mention of insecticide substances.

NOTE.—Nos. 2209–2211 were issued as a separate, Salem, 1884.

2212. [RILEY, C. V.] Entomology at Minneapolis. <Amer. Nat., 1883, v. 17: October [17 September], pp. 1068–1070; November [19 October], pp. 1169–1174.

Minutes of the meetings of the entomologists at the session of the American Association for the Advancement of Science; reorganization of the entomological club; election of officers and change in the constitution; abstracts of papers read.

2213. RILEY, C. V. Notes on *Pædisca scudderiana*. <Amer. Nat., October [17 September], 1883, v. 17, pp. 1069–1070.

Habits and variation of *Pædisca scudderiana*; difference between the gall of this insect and that of *Gelechia gallæsolidaginis*.

2214. RILEY, C. V. A myrmecophilous lepidopteron. <Amer. Nat., October [17 September], 1883, v. 17, p. 1070.

Larva of *Helia americalis* found in nests of *Formica rufa*; this species the only one of the Lepidoptera known to develop in ants' nests.

2215. [RILEY, C. V.] Enemies of the egg-plant. <Amer. Nat., October [17 September], 1883, v. 17, p. 1070.

Extract from a letter of A. Œmler, proving that the occurrence of *Cassida texana* and *Doryphora juncta* on *Solanum melongena* is not accidental or temporary.

2216. [RILEY, C. V.] The periodical Cicada in southeastern Massachusetts. <Amer. Nat., October [17 September], 1883, v. 17, p. 1071.

Note to paper of C. E. Bessey; *Cicada* [= *Tibicen*] *septendecim* at Martha's Vineyard, Mass., in June, 1883, the precursor to *septendecim* Brood XXI which will appear in North Carolina and Virginia as well as Martha's Vineyard in 1884; accelerated specimens of the same brood received from Loudoun County, Va., recently.

2217. RILEY, C. V. Habits of *Murmidius*. <Amer. Nat., October [17 September], 1883, v. 17, p. 1071.

List of insects found in a lot of damaged rice from South America; occurrence of *Murmidius ovalis* in vast numbers in this rice; its probable food-habits; description of its cocoon; list of families of beetles some of whose larvæ spin cocoons; habitat of *Mychocerus*.

2218. [RILEY, C. V.] Obituary. <Amer. Nat., October [17 September], 1883, v. 17, p. 1072.

Notices of V. T. Chambers and Townend Glover.

2219. [RILEY, C. V.] Entomological notes. <Amer. Nat., October [17 September], 1883, v. 17, pp. 1072–1073.

Notes on recent entomological publications; items of news.

2220. [RILEY, C. V.] Economic notes. <Amer. Nat., October [17 September], 1883, v. 17, pp. 1073–1074.

Comments on the ravages of several injurious insects during the past season.

2221. RILEY, C. V. A parasite of the cabbage-worm. <Rural New-Yorker, 6 October, 1883, v. 42. S.-b. No. 42, p. 58.

Answer to letter of J. H. B.; parasitism of *Pteromalus puparum* in larvæ and pupæ of *Pieris rapæ*.

2222. RILEY, C. V. The handmaid moth. <Rural New Yorker, 13 October, 1883, v. 42. S.-b. No. 42, p. 77.

Answer to inquiry of H. B. S.; description of larva, pupa, and imago of *Datana ministra* from hickory- and walnut-trees, and of a phytophagic variety of the larva from apple and other trees; habits of the larvæ; the larvæ unusually abundant in 1883.

2223. RILEY, C. V. Remarks on *Arzama obliquata*. <Amer. Nat., November [19 October], 1883, v. 17, p. 1169.

Description of the egg-mass of *Arzama obliquata*; colors and habitat of the larva; variations of the imago; number of annual broods.

2224. [RILEY, C. V.] Rare monstrosities. <Amer. Nat., November [19 October], 1883, v. 17, p. 1175.

Notice of monstrosities recorded in *Melanippe montanata* and *Zygæna minos*.

2225. [RILEY, C. V.] The nervous system of insects. <Amer. Nat., November [19 October], 1883, v. 17, pp. 1175–1176.

Summary of the observations of Ed. Brandt.

2226. [RILEY, C. V.] *Hymenorus rufipes* as a myrmecophilous species. <Amer. Nat., November [19 October], 1883, v. 17, p. 1176.

Imagos of *Hymenorus rufipes* raised from larvæ found in nests of *Formica fusca*; character of the nests of the *Formica*; food-habits of the *Hymenorus* unknown.

2227. [RILEY, C. V.] Recent publications. <Amer. Nat., November [19 October], 1883, v. 17, p. 1177.

Notice of J. H. Comstock's work on *Diaspinæ* and of other recent publications.

2228. [RILEY, C. V.] Entomological notes. <Amer. Nat., November [19 October], 1883, v. 17, pp. 1177–1179.

Review of "General Index of the Entomological Reports of the Province of Ontario;" recent publications and items of news.

2229. RILEY, C. V. The potato-stalk borer. <Rural New-Yorker, 20 October, 1883. S.-b. No. 42, pp. 78–79.

Answer to letter of S. C. R.; description, habits of, and means against *Gortyna nitela*; means against *Paria aterrima*, *Graphops pubescens*, and other larvæ of *Chrysomelidæ* injurious to the roots of strawberry-plants.

2230. [RILEY, C. V.] Recent advances in horticultural entomology. <Rural New-Yorker, 20 October, 1883, v. 42. S.-b. No. 42, pp. 79–81. Reprint: <Proc. 19th Sess. Amer. Pomol. Soc., 1884, p. 45. <Trans. Wisc. State Hortic. Soc., 1886, v. 17, p. —.

Report of address delivered; discussion of measures recommended for adoption to prevent the ravages of insects injurious to horticulture, especially of *Carpocapsa pomonella* and *Conotrachelus nenuphar*; correction of statements in regard to the oviposition of *Saperda bivittata* [= *candida*] and ? *Bembex marginata*; advance in knowledge of the life-history of *Aphididæ* and in the development of machinery for the application of poison sprays to plants; relative value of the principal insecticides.

2231. RILEY, C. V. On a gall-making genus of *Apioninæ*. <Bull. Brooklyn Ent. Soc., October, 1883, v. 6, pp. 61–62. Separate: <Brooklyn, N. Y., 1883, 2 pp.

List of North American gall-making Coleoptera; description of *Podapion* n. g. [p. 62] and of the gall and imago of *P. gallicola* n. sp., found on twigs of *Pinus inops*; probable life-habits, inquilines, and parasite of this species.

2232. RILEY, C. V. Report of the Entomologist. <Ann. Rept. [U. S.] Commissioner Agric. for 1883, pp. 99–180, 13 pl. Separate: <Washington, 31 October, 1883, pp. 5+pp. 99–180+pp. 7, 13 pl.

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2233. RILEY, C. V. The imported orchard *Scolytus* (*Scolytus rugulosus* Ratz.). <Thomasville [Ga.] Times, 10 November, 1883. S.-b. No. 56, p. 182.

Answer to inquiry; *S. rugulosus* bores in twigs of pear; means against it.

2234. RILEY, C. V. Osage orange *vs.* mulberry for the silk-worm. <Sci. Amer., 17 November, 1883, v. 49, p. 305. S.-b. No. 42, p. 91. Reprint: <Amer. Nat., 5 January, 1884, v. 18, pp. 78–79. <Prairie Farmer, 22 March, 1884, v. 56, p. 187. S.-b. No. 42, p. 118.

Comparative value of leaves of *Maclura aurantiaca* and of *Morus* as food for *Sericaria mori*; critical review of V. des Lauriers's conclusions.

2235. RILEY, C. V. Entomological notes of the year. <Prairie Farmer, 24 November, 1883, v. 55. S.-b. No. 42, pp. 86–87.

Progress of experiments for the destruction of scale insects, *Coccidæ*; introduction of *Aspidiotus rapax* into California on apples from New Zealand; strawberries injured by *Capsus oblineatus* [= *Lygus pratensis*] and a myriapod in Illinois; occurrence of *Leucania unipuncta* in several places, and of *Cecidomyia destructor* in Illinois; extension of culture of *Pyrethrum cinerariæfolium* in California; occurrence of *Anarsia lineatella* on strawberry-plants in Illinois; of *Doryphora juncta* and *Cassida texana* on *Solanum melongena* in Georgia; of *Ceresa bubalus* on potato-plants in Pennsylvania; of *Epilachna corrupta* on wax-beans, etc.

2236. RILEY, C. V. A satisfactory remedy for melon bugs, flea-beetles, etc. <Rural New-Yorker, 3 November, 1883, v. 42. S.-b. No. 42, pp. 77–78.

Quinn's method of sprinkling the vines with a mixture of tobacco water and soft soap and then powdering with lime is probably the best general preventive against *Diabrotica vittata* and *Halticidæ*; description of J. M. Nicholson's siphon arrangement by which to keep the vines constantly moist with the liquid.

2237. RILEY, C. V. The chinch-bug in New York. <Science, 9 November, 1883, v. 2, p. 621. Extract: <Sci. Amer., 22 December, 1883, v. 49, p. 384. S.-b. No. 42, pp. 122–123.

Present outbreak of *Blissus leucopterus* in New York the result of an increase due to favorable conditions rather than an invasion.

2238. R[ILEY], C. V. Insects in relation to agriculture. <Stoddart's Encylopædia Americana, 1883, v. 1, pp. 135–142, figs. 1–29.

Chapter 9 of article "Agriculture." Brief accounts with numerous illustrations of the insects named below, and of means against them, with cross-references to accounts of other insects in other portions of the work. The headings and subjects of the sub-chapters are as follows:

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2239. R[ILEY], C. V. Army-worm, *Leucania unipuncta*, Haw. <Stoddart's Encylopædia Americana, 1883, v. 1, pp. 317–318, 2 figs.

Distribution, seasons, habits, and food-plants of and means against *Leucania unipuncta*; references to the more important articles on this insect; figures of larva and imago.

2240. RILEY, C. V. An epidemic disease of *Caloptenus differentialis*. <Amer. Nat., December [28 November], 1883, v. 17, p. 1287.

Note to communication of H. Osborn; the *Entomophthora calopteni* a result rather than the cause of disease.

2241. RILEY, C. V. The growth of insect eggs. <Amer. Nat., December [28 November], 1883, v. 17, p. 1289.

Notice of paper of J. A. Osborne; swelling of the eggs of *Phaneroptera* [=*Scudderia*] *curvicauda* probably connected with embryological development.

2242. [RILEY, C. V.] Protective device employed by a glaucopid caterpillar. <Amer. Nat., December [28 November], 1883, v. 17, p. 1289.

Notice of paper of F. Müller; general use of shed hairs by larvæ of *Arctiidæ* in the construction of their cocoons; description of method in which the larva of *Eunomia cagrus* arranges its shed hairs to form a protection for the pupa.

2243. [RILEY, C. V.] Saw-fly larvæ on the quince. <Amer. Nat., December [28 November], 1883, v. 17, p. 1289.

Notice of paper of J. A. Lintner; food-plants of *Selandria* [=*Eriocampa*] *cerasi*.

2244. [RILEY, C. V.] Entomology in New York. <Amer. Nat., December [28 November], 1883, v. 17, pp. 1289–1291.

Review of J. A. Lintner's first annual report as State entomologist; list of subjects treated in the report.

2245. [RILEY, C. V.] Fruit insects in California. <Amer. Nat., December [28 November], 1883, v. 17, p. 1291.

Review of M. Cooke's "Injurious Insects of the Orchard."

2246. [RILEY, C. V.] Death of Dr. J. L. Leconte. <Amer. Nat., December [28 November], 1883, v. 17, p. 1291.

Notes the loss to entomologists occasioned by the death of J. L. Leconte.

2247. [RILEY, C. V.] Entomological notes. <Amer. Nat., December [28 November,] 1883, v. 17, pp. 1291–1292.

Brief notices of published articles with items of news.

2248. [RILEY, C. V.] Economic notes. <Amer. Nat., December [28 November], 1883, v. 17, p. 1292.

Effect of Phylloxera laws in Europe; use of lime as a means against Macrodactylus; award of the Le Brun prize for the most valuable improvement relating to the silk industry.

2249. RILEY, C. V. [Raspberry canes punctured by *Orchelimum glaberrimum*.] <Fruit Recorder, Purdy, 1 December, 1883, v. 15. S.-b. No. 42, p. 92.

Description of and means against *Orchelimum glaberrimum*.

2250. [RILEY, C. V.] The Phylloxera in sandy soil. <Rural New-Yorker, 1 December, 1883, v. 42. S.-b. No. 42, p. 97. Reprint: <Amer. Nat., January, 1884 [29 December, 1883], v. 18, p. 78.

Condition of the grape crop in France; favorable account of the use of American grape-stocks; *Phylloxera vastatrix* harmless in sandy soils.

2251. RILEY, C. V. Bacterial disease of the imported cabbage-worm. <Sci. Amer., 1 December, 1883, v. 49, p. 337. S.-b. No. 42, pp. 91–92. Reprint: <Amer. Nat., January, 1884 [29 December, 1883], v. 18, p. 80.

Notice of observations of S. A. Forbes on the death of larvæ of *Pieris rapæ* from infection by *Bacterium*; previous mention of this disease.

2252. RILEY, C. V. The chinch-bug in New York State. <Sci. Amer., 8 December, 1883, v. 49. p. 359. Reprint: <Amer. Nat., 5 January, 1884, v. 18, pp. 79–80.

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2253. RILEY, C. V. Reports of observations and experiments in the practical work of the division, made under the direction of the entomologist. <Bull. No. 3, Div. Ent. U. S. Dept. Agric., [8 December], 1883, 75 pp., 3 pl.

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2254. RILEY, C. V. Entomology in New York. <Rural New-Yorker, 15 December, 1883. S.-b. No. 42, pp. 85–86.

Review of J. A. Lintner's first report (for the year 1881) as State entomologist of New York.

2255. RILEY, C. V. *Lucilia macellaria*. <Sci. Amer., 15 December, 1883, v. 49, p. 373. S.-b. No. 42, p. 93.

Critical review of paper of F. Humbert.

2256. RILEY, C. V. Dipterous larvæ in the human body. <Sci. Amer., 22 December, 1883, v. 49, p. 385. S.-b. No. 42, p. 90.

References to and notices of several articles on the occurrence of larvæ of Diptera in the human body; synonymy and distribution of *Compsomyia* [=*Lucilia*] *macellaria*; myasis caused solely by larvæ of *Sarcophagidæ* and *Muscidæ*; *Œstridæ* occur rarely and exceptionally in the human body.

2257. RILEY, C. V. Capitalizing specific names. <Papilio, September–December, 1883, v. 3, pp. 164–166. Separate: <[N. Y.], 3 pp.

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2258. R[ILEY], C. V. Townend Glover. <Papilio, September–December, 1883, v. 3, pp. 167–168.

Obituary notice.

2259. [RILEY, C. V.] The genus *Colias*. <Amer. Nat., [5] January, 1884, v. 18, pp. 74–76.

Review of paper of H. A. Hagen; discussion of the species of *Colias* in North America; plastic nature and classificatory characters of the genus.

2260. [RILEY, C. V.] Larval habits of the dipterous family *Dexidæ*. <Amer. Nat., [5] January, 1884, v. 18, pp. 76–77.

Notice of paper of F. Brauer; parasitism of *Dexia rustica* and of *Phorostoma latum* on the larva of *Rhizotrogus* and of *Melanophora? diabroticæ* on *Diabrotica vittata*.

2261. [RILEY, C. V.] Entomological notes. <Amer. Nat., [5] January, 1884, v. 18, pp. 80–81.

Carpocapsa pomonella has been introduced into Australia, New Zealand, and Tasmania; occurrence of *Myrmicocela ochraceella* in ants' nests.

2262. RILEY, C. V. Recent outbreaks of the army-worm. <Rural New-Yorker, 12 January, 1884, v. 43, p. 19. S.-b. No. 56, p. 145.

Rare occurrence of *Leucania unipuncta* in 1882 and 1883, following its last abundance in 1881; occurrence of its larvæ at East Windsor, Vt., in June, 1883.

2263. [RILEY, C. V.] The harlequin cabbage-bug, etc. <Rural New-Yorker, 2 February, 1884, v. 43, p. 70. S.-b., No. 63, p. 41.

Habits of and means against *Murgantia histrionica*; effect of chemicals applied to the soil upon the colors of flowers.

2264. RILEY, C. V. Tribute to the memory of John Lawrence Leconte. <Psyche, November-December, 1883 [11 February, 1884], v. 4, pp. 107–110. Separate: <[Cambridge, Mass., 11 February, 1884], pp. 107–110. Notice: <Psyche, *loc. cit.*, p. 119.

Biographical notice of J. L. Leconte; his work and writings; his personal character; disposition of his entomological collection.

2265. [RILEY, C. V.] Fruit culture in the South. <Washington Post, 26 February, 1884. S.-b. No. 42, pp. 119–120.

Interview with a reporter; means against insects infecting the orange.

2266. RILEY, C. V. Oviposition of the round-headed apple-tree borer. <Rural New-Yorker, 1 March, 1884, v. 43, p. 132, fig. 73. S.-b. No. 42, p. 85; No. 67, p. 3.

Notice of paper of C. G. Atkins; confirmation of the account of the method of oviposition of *Saperda candida*; description of this method; correction of several statements by W. Saunders in regard to the oviposition of different insects; description and figure of the egg of *S. candida*; figures of the burrows and hole of exit of this beetle; figures of the pupa and of the position of the egg when deposited.

2267. [RILEY, C. V., *et al.*] Third report of the United States Entomological Commission, relating to the Rocky Mountain locust, the Western cricket, the army-worm, canker-worms, and the Hessian fly; together with descriptions of larvæ of injurious forest insects, studies on the embryological development of the locust and of other insects, and on the systematic position of the Orthoptera in relation to other orders of insects; with maps and illustrations. <Washington: 1883 [6 March, 1884], pp. 14+347+12+92, 18 figs., 64 pls., 4 maps.

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Records and map showing distribution of brood XXII (*septendecim*) and of brood VII (*tredecim*); habits, enemies, and figures, with details of structure of *Cicada* [= *Tibicen*] *septendecim*; figure of twig punctured by the same and of twig healed after the puncture.

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2314. RILEY, C. V. The periodical or seventeen-year Cicada. <Amer. Grange Bulletin, 11 June, 1885. S.-b. No. 63, pp. 16–17.

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Injuries and means against *Agrotis malefida*, *Anthonomus musculus* and *Eurycreon rantalis*; localities and food-plants of the last.

2323. [RILEY, C. V.] [Grasshopper ravages in California.] <Rural New-Yorker, 11 July, 1885, v. 44, p. 470. S.-b. No. 61, p. 2.

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2324. RILEY, C. V. Pests of the strawberry. <Rural New-Yorker, 18 July, 1885, v. 44, p. 484. S.-b. No. 61, p. 17.

Answer to inquiry of J. H. J.; means against *Agrotis tricosa*, *Phoxopteris fragariæ*, *Eccopsis permundana* and *Emphytus* [=*Harphiphorus*] *maculatus*.

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Natural-history descriptions and figures of all stages of *Galeruca xanthomelæna*; means against the same.

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2327. RILEY, C. V. The cyclone nozzle. <Rural New-Yorker, 22 August, 1885, v. 44, p. 567. S.-b. No. 61, p. 34.

Facts relative to the invention of the cyclone nozzle.

2328. RILEY, C. V. A new remedy against destructive locusts. <Rural New-Yorker, 29 August, 1885, v. 44, p. 577. S.-b. No. 61, p. 33.

Recommends the use of poisoned bait; formula of the same.

2329. RILEY, C. V. The influence of climate on *Cicada septendecim*. <Entom. Amer., August, 1885, v. 1, p. 91.

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2330. RILEY, C. V. Department of insects. <Ann. Rept. of Regents Smith. Inst. for 1883, 1885, pp. 239–244.

Brief mention of work accomplished in the U. S. National Museum; list of accessions to the collection.

2331. RILEY, C. V. Insects of the year. <Prairie Farmer, 3 September, 1885, v. 57, p. 567. S.-b. No. 63, p. 37; 134. See: <Entom. Amer., December, 1885, v. 1, pp. 176–177.

Ravages of *Agrotis messoria*, *Anthonomus musculus*, *Eurycreon rantalis*, *Cecidomyia destructor*, and *Acrididæ* on the Pacific coast.

2332. RILEY, C. V. On the parasites of the Hessian fly. <Proc. U. S. Nat. Mus., 14–17 September, 1885, v. 8, pp. 413–422, pl. 23. Abstract: <Proc. Amer. Assoc. Adv. Sci. for 1885, [August], 1886, v. 34, pp. 332–334. <Amer. Nat., November, 1885, v. 19, pp. 1104–1105.

Description, synonymy, habits, and figures of *Merisus destructor* (Say); *M. subapterus* n. sp. [p. 416, pl. 23, f. 2: p. 333]; *Eupelmus allynii* French; *Tetrastichus productus* n. sp. [p. 419, pl. 23, f. 5: p. 333]; and *Platygaster herrickii* Packard.

2333. RILEY, C. V. Enemies of the black-walnut and willow. <Rural New-Yorker, 19 September, 1885, v. 44, p. 632. S.-b. No. 61, p. 35.

Habits, description of eggs, larva, and adult of *Datana ministra*; description of eggs, larva, and adult of *Cimbex americana*; means against both species.

2334. RILEY, C. V. The song-notes of the periodical Cicada. <Science, 25 September, 1885, v. 6, pp. 264–265. Reprint, with additions: <Proc. Amer. Assoc. Adv. Sci. for 1885, [August], 1886, v. 34, pp. 330–332. Translation: <Stett. Ent. Zeit., 1886, jahrg. 47, pp. 158–160. See: <Science, 11 September, 1885, v. 6, p. 225. <Kansas City Review, October, 1885, p. 171.

Description of the three prevalent notes of *Cicada* [= *Tibicen*] *septendecim*.

2335. RILEY, C. V. The probabilities of locust or "grasshopper" injury in the near future, and a new method of counteracting their injury. <Colman's Rural World, 29 October, 1885, v. 38, p. 348. S.-b. No. 63, pp. 32–33. Reprint: <Proc. Amer. Assoc. Adv. Sci. for 1885, [August], 1886, v. 34, pp. 519–520. <Proc. 6th Meeting Soc. Prom. of Agric. Sci., Manhattan, Kans., 1886, pp. 38–39. See: <Mich. Christian Herald, 3 September, 1885. S.-b. No. 63, p. 39. <Amer. Grange Bull., 5 November, 1885. S.-b. No. 63, p. 34. <Prairie Farmer, 10 October, 1885, v. 57, p. 669. S.-b. No. 61, pp. 34–35.

The advance of settlement and cultivation will prevent such widespread injuries of *Caloptenus spretus* as occurred between 1874 and 1877; use of poisoned baits.

2336. RILEY, C. V. The present status and future prospects of silk-culture in the United States. <Entom. Amer., October, 1885, v. 1, pp. 139–140. Reprint: <Proc. Amer. Assoc. Adv. Sci. for 1885, [August], 1886, v. 34, p. 516. See: <Science, 11 September, 1885, v. 6, p. 236.

Abstract; headings under which the subject is discussed; summary of conclusions.

2337. RILEY, C. V. The grain moth. <Rural New-Yorker, 7 November, 1885, v. 44, p. 744. S.-b. No. 63, p. 56.

Habits, descriptions, ravages, and means against *Asopia farinalis*.

2338. [RILEY, C. V.] Profits of silk-culture. <Rural New-Yorker, 26 December, 1885, v. 44, p. 885. S.-b. No. 63, pp. 50–51.

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THE MORE IMPORTANT CONTRIBUTIONS

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BY

SAMUEL HENSHAW.

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TO

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INDICES TO PARTS I, II, AND III.

SYSTEMATIC INDEX OF THE NEW NAMES PROPOSED BY B. D. WALSH AND BY WALSH AND RILEY.

[The Walsh and Riley names are followed by W. & R. The first number following the name refers to the number of the paper in the list, the second to the page where the species is first described. As is well known, the Walsh collection was destroyed in the Chicago fire in October, 1871. A few of the types sent to Drs. Hagen and Riley are in the collections of the Museum of Comparative Zoology at Cambridge and the National Museum at Washington. Those at Cambridge are indicated by a *, those at Washington by **.]

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[The types, without exception, are preserved in the collection of the National Museum, Washington, D. C.]

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*Described and figured in A. S. Fuller's "Injurious insects." <Tilton's Journ. of Hortic. and Florist's Companion, October, 1868, v. 4, pp. 207-209.

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[1] Described and figured in Lintner's First Report N. Y. State Entomologist, p. 159.

[2] Proposed (Record of Amer. Ent., 1871, p. 8) for Trichogramma minutum. Pentarthron has, however, been used for a genus of beetles.

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