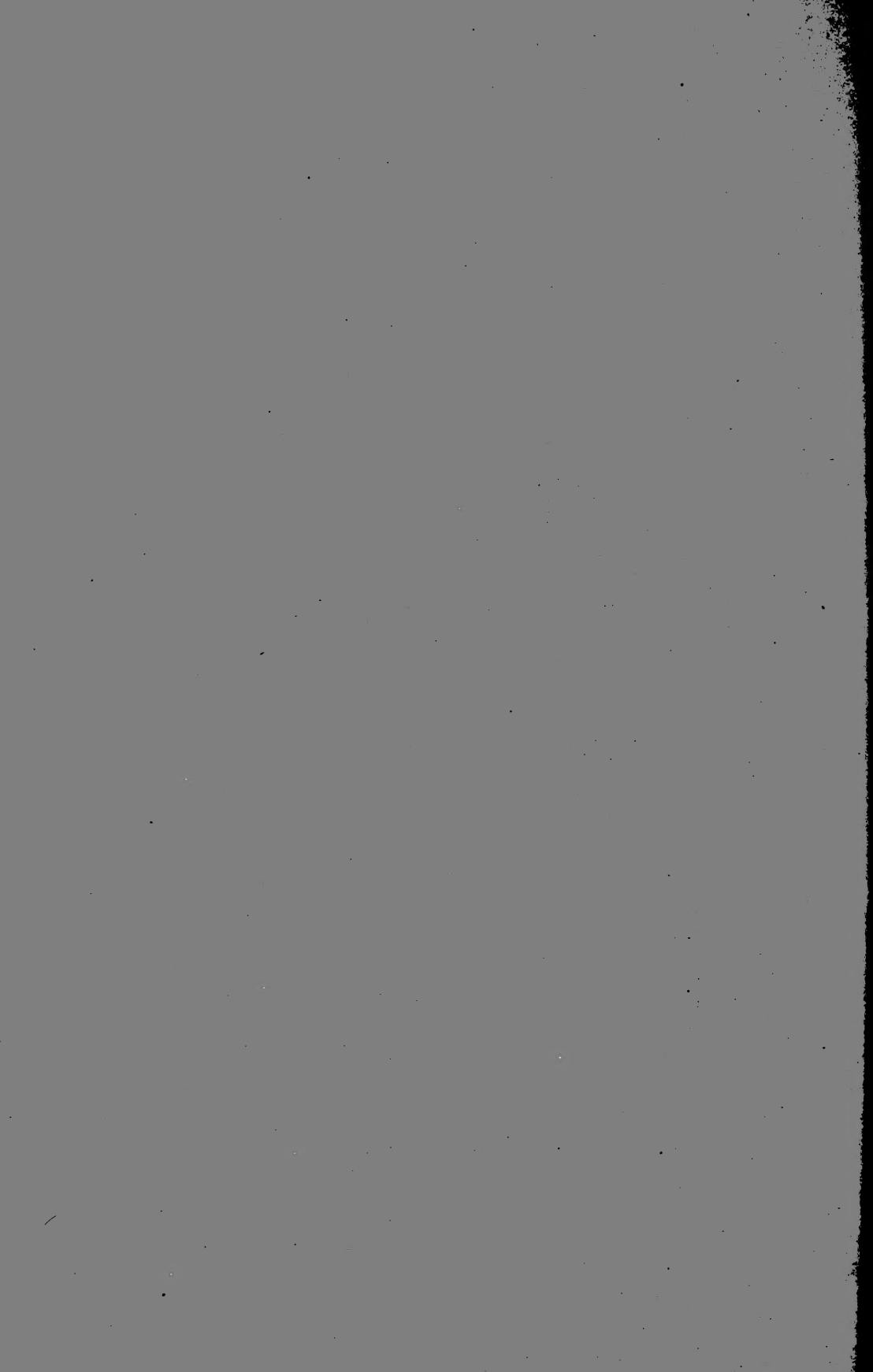


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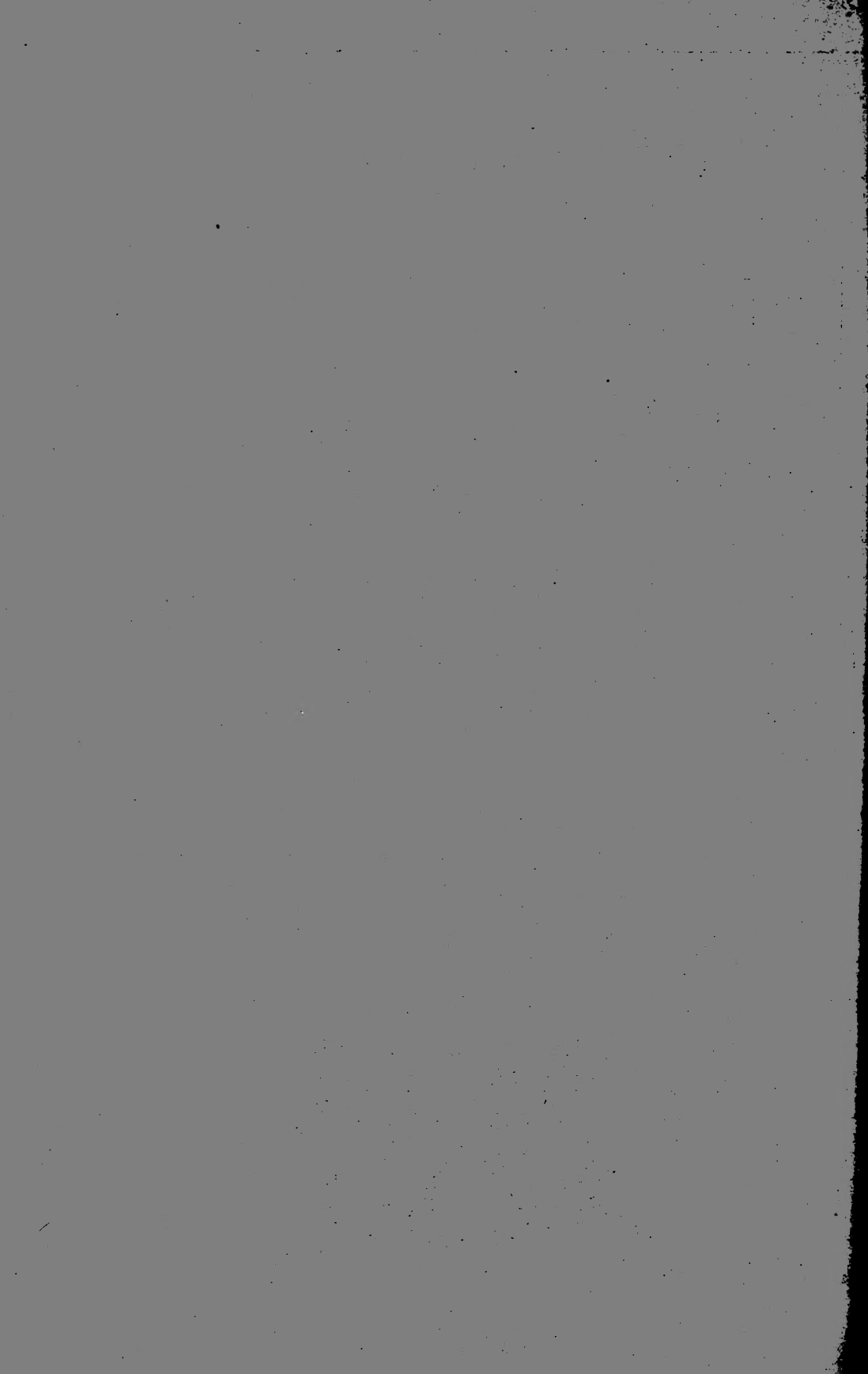
GENERAL INDEX
TO THE
THIRTEEN ANNUAL REPORTS
OF THE
ENTOMOLOGICAL SOCIETY
OF THE
PROVINCE OF ONTARIO,
1870-1882.

Prepared for the Honorable the Commissioner of Agriculture by the Society.

COMPILED BY
EDMUND BAYNES-REED,
SEC.-TREAS. OF THE SOCIETY.



Toronto :
PRINTED BY C. BLACKETT ROBINSON, 5 JORDAN STREET.
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LIST OF ILLUSTRATIONS.

The nomenclature of the Reports is retained.

The pagination of the First Report is taken from the Commissioner's Report.

All the other Reports were printed separately from the General Report and their pagination has been followed.

SUMMARY OF ILLUSTRATIONS.

1870.....	1st Report . . .	61 Illustrations.	1877.....	8th Report.....	58 Illustrations.
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1872.....	3rd " . . .	84 "	1879.....	10th " . . .	57 "
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Lepidoptera . . .	24	44	35	10	18	18	8	8	3	15	15	30	12
Diptera	2	8	5	11	4	3	1	9	4	6	42
Coleoptera	16	27	26	4	2	5	14	25	27	16	24	7	16
Hemiptera	7	14	6	1	6	4	2	4	19
Orthoptera	2	2	4	1	1	3	2
Neuroptera	3	3	6	1	2	10	2	2
Arachnida	24	12	1
Myriapoda	1
General	2	2	2
	61	104	84	31	46	30	29	58	38	57	74	52	91

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PART II.—CLASSIFIED LIST OF INSECTS ILLUSTRATED.

PART III.—GENERAL INDEX.

PART I.—LIST OF ILLUSTRATIONS.

1870.—REPORT I.

- FIG. 1. Apple-root Plant-louse (*Eriomosa* [*Pemphigus*] *pyri*, Fitch); *a*, affected root; *b*, larva; *c*, winged louse.
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- FIG. 4. Head of Woodpecker.
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- FIG. 6. Oyster-shell Bark-louse (*Aspidiotus conchiformis*, Gmélín).
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- FIG. 23. White-marked Tussock Moth (*Orgyia leucostigma*, Sm. and Abbott); *a*, wingless female attached to her cocoon; *b*, young larva; *c*, female pupa; *d*, male pupa.
- FIG. 24. (*Orgyia leucostigma*, Sm. and Abb.), full-grown larva.
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- FIG. 30. Cecropia Emperor Caterpillar (*Samia* [*Saturnia*] *cecropia*, Linn.); cocoon.
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- FIG. 37. Green Grape-vine Sphinx (*Chærocampa pampinatrix*, Sm. and Abb.), chrysalis.
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 FIG. 47. Grape-vine Flea-beetle (*Haltica chalybea*, Illiger) ; a, larvæ on leaf ; b, larva enlarged ; c, earthen cell containing pupa ; d, beetle.
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 FIG. 52. Tree-cricket (*Ecanthus niveus*, Harris), female.
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 FIG. 55. Pennsylvania Ground-beetle (*Harpalus pennsylvanicus*, DeGeer), larva.
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 FIG. 58. Hull Curculio-catcher.
 FIG. 59. Hull Curculio-catcher.
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 FIG. 61. Eye-spotted Bud-moth (*Grapholitha oculana*), moth and larva.

1871.—REPORT II.

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 FIG. 8. Green Sphinx (*Chærocampa pampinatrix*, Smith & Abbott).
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 FIG. 12. Common Yellow Wooly-bear (*Spilosoma virginica*, Fab.). [See 1st Report, Fig. 44.]
 FIG. 13. Spotted Pelidnota (*Pelidnota punctata*, Linn.). [See 1st Report, Fig. 45.]
 FIG. 14. Grape-vine Flea-beetle (*Haltica chalybea*, Illiger).
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- FIG. 19. The Plum Sphinx-moth (*Sphinx drupiferarum*, Smith & Abbott), larva.
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- FIG. 26. Imported Gooseberry Saw-fly (*Nematus ventricosus*, Klug); *a*, male; *b*, female.
- FIG. 27. Imported Gooseberry Saw-fly (*Nematus ventricosus*, Klug); gooseberry-leaf, shewing eggs (1), and the holes which the young worms make (2, 3).
- FIG. 28. Imported Gooseberry Saw-fly (*Nematus ventricosus*, Klug); *a*, *a*, *a*, larvæ; *b*, enlarged view of side shewing tubercles.
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- FIG. 30. Native Gooseberry or Currant Saw-fly (*Pristiphora grossulariæ*, Walsh); *a*, larva; *b*, fly.
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- FIG. 46. Hessian Fly (*Cecidomyia destructor*, Say).
- FIG. 47. Chinch-bug (*Micropus leucopterus*, Say); the figure on the right shews, by way of comparison, another bug, (*Anthocoris insidiosus*, Say).
- FIG. 48. Chinch-bug (*Micropus leucopterus*, Say), short-winged form.
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- FIG. 50. Plain Ladybird (*Coccinella munda*, Say).
- FIG. 51. Grain-aphis (*Aphis avenæ*, Fabr.).
- FIG. 52. Grain-aphis (*Aphis avenæ*, Fabr.), female enlarged.
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- FIG. 56. Syrphus-fly, larva, devouring aphis.
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- FIG. 61. Army-worm (*Leucania unipuncta*, Haworth), larva.
- FIG. 62. Army-worm (*Leucania unipuncta*, Haworth), pupa.
- FIG. 63. Army-worm (*Leucania unipuncta*, Haworth), moth.
- FIG. 64. Wheat Wire-worm (*Agriotes mancus*, Say), larva and pupa, shewing different parts.
- FIG. 65. Three-lined Leaf-beetle (*Lema trilineata*, Oliv.).
- FIG. 66. Striped Cucumber-beetle (*Diabrotica vittata*, Fabr.).
- FIG. 67. Three-lined Leaf-beetle (*Lema trilineata*, Oliv.), larvæ feeding on potato stalk.

- FIG. 68. Colorado Potato-beetle (*Doryphora 10-lineata*, Say) ; a, a, eggs ; b, b, b, b, larva ; c, pupa ; d, beetle ; e, wing-case enlarged ; f, leg enlarged.
- FIG. 69. Ladybird, larva of.
- FIG. 70. Spotted Ladybird (*Hippodamia maculata*, DeGeer).
- FIG. 71. Nine-spotted Lady-bird (*Coccinella 9-notata*, Herbst).
- FIG. 72. Thirteen-spotted Ladybird (*Coccinella 13-punctata*, Linn.).
- FIG. 73. Convergent Ladybird (*Hippodamia convergens*, Guen.) ; a, larva ; b, pupa ; c, beetle.
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- FIG. 80. Ring-banded Soldier-bug (*Perillus circumcinctus*, Stal.) ; b, antennæ ; c, beak enlarged.
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- FIG. 87. Potherb Butterfly (*Pieris oleracea*, Harris ; *casta*, Kirby) ; a, larva.
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- FIG. 100. Twelve-spotted Diabrotica (*Diabrotica 12-punctata*, Fabr.).
- FIG. 101. Striped Cucumber-beetle (*Diabrotica vittata*, Oliv.), larva ; 1, back ; 2, side view.
- FIG. 102. Striped Cucumber-beetle (*Diabrotica vittata*, Oliv.), pupa ; 1, front ; 2, back.
- FIG. 103. Striped Cucumber-beetle (*Diabrotica vittata*, Oliv.), beetle.
- FIG. 104. Cucumber Flea-beetle (*Haltica cucumeris*, Harris).

1872.—REPORT III.

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- FIG. 2. Achemon Sphinx (*Philampelus Achemon*, Drury), larva.
- FIG. 3. Achemon Sphinx (*Philampelus Achemon*, Drury), pupa.
- FIG. 4. Achemon Sphinx (*Philampelus Achemon*, Drury), moth.
- FIG. 5. Abbot Sphinx (*Thyreus Abbotii*, Swainson).
- FIG. 6. Joint-worm (*Isosoma hordei*, Harris), larva.
- FIG. 7. Joint-worm (*Isosoma hordei*, Harris), fly.
- FIG. 8. White Grub *Lachnosterna quercina*, Knoch) ; 1, pupa ; 2, larva ; 3, 4, beetle.
- FIG. 9. Strawberry Leaf-roller (*Anchylopera fragaria*, Riley) ; a, larva : b, anterior part enlarged ; d, anal segment ; c, moth.
- FIG. 10. Oblique Banded Leaf-roller (*Lozotenia rosaceana*, Harris), larva and pupa.
- FIG. 11. Oblique Banded Leaf-roller (*Lozotenia rosaceana*, Harris), moth.
- FIG. 12. Currant Green Measuring Worm (*Angerona crocotaaria*, Guen.), moth.

- FIG. 13. Smeared Dagger (*Acronycta oblongata*, Sm. & Abb.); a, larva; b, pupa; c, moth.
- FIG. 14. Strawberry False-worm (*Emphytus maculatus*, Norton); 1, 2, pupa; 3, 5, fly; 4, 6, larva; 7, cocoon; 8, egg enlarged.
- FIG. 15. *Osmia Canadensis*, Cresson, enlarged.
- FIG. 16. Grain Aphis (*Aphis avenae*, Fabr.).
- FIG. 17. Grain Aphis (*Aphis avenae*, Fabr.).
- FIG. 18. Nine-spotted Ladybird (*Coccinella 9-notata*, Herbst).
- FIG. 19. Lace-wing Fly (*Chrysopa*, Sp.).
- FIG. 20. Lace-wing Fly, larva.
- FIG. 21. Syrphus Fly, larva.
- FIG. 22. Syrphus Fly.
- FIG. 23. Hop-vine Snout-moth (*Hypona humuli*, Harris).
- FIG. 24. Semicolon Butterfly (*Grapta interrogationis*, Godt.).
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- FIG. 26. Maple Borer (*Clytus speciosus*, Say).
- FIG. 27. Rosy Forest Caterpillar (*Dryocampa rubicunda*, Fabr.).
- FIG. 28. American Silk-worm (*Telea Polyphemus*, Linn), female.
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- FIG. 30. American Silk-worm (*Telea Polyphemus*, Linn.), larva.
- FIG. 31. American Silk-worm (*Telea Polyphemus*, Linn.), cocoon.
- FIG. 32. American Silk-worm (*Telea Polyphemus*, Linn.), pupa.
- FIG. 33. Cecropia Emperor Moth (*Platysamia cecropia*, Linn.), larva.
- FIG. 34. Peach-borer (*Aegeria exitiosa*, Say); 1, female; 2, male.
- FIG. 35. Peach-borer (*Aegeria exitiosa*, Say).
- FIG. 36. Colorado Potato-beetle (*Doryphora 10-lineata*, Say).
- FIG. 37. Fifteen-spotted Mysia (*Mysia 15-punctata*, Oliv.).
- FIG. 38. Ring-banded Soldier-bug (*Perillus circumcinctus*, Stal.).
- FIG. 39. Archippus Butterfly (*Danais archippus*, Fabr.); a, egg enlarged; c, natural size; e, f, lateral and dorsal view of segment of larva; b, larva in the act of casting its skin, to shew how the flexible horns are folded (d).
- FIG. 40. Archippus Butterfly (*Danais archippus*, Fabr.), larva.
- FIG. 41. Archippus Butterfly (*Danais archippus*, Fabr.); a, b, c, successive stages in changing from caterpillar to chrysalis.
- FIG. 42. Archippus Butterfly (*Danais archippus*, Fabr.), pupa.
- FIG. 43. Archippus Butterfly (*Danais archippus*, Fabr.), butterfly.
- FIG. 44. Disippus Butterfly (*Limenitis disippus*, Godt.), shewing upper surface of left wing, and under surface of right.
- FIG. 45. Disippus Butterfly (*Limenitis disippus*, Godt.); a, egg enlarged; e, natural size.
- FIG. 46. Disippus Butterfly (*Limenitis disippus*, Godt.); a, larva; b, pupa; c, hibernaculum; d, leaf cut for hibernaculum.
- FIG. 47. Hellgrammite Fly (*Corydalis cornutus*, Linn.); a, larva; b, pupa; c, male fly.
- FIG. 48. Hellgrammite Fly (*Corydalis cornutus*, Linn.), female.
- FIG. 49. Hellgrammite Fly (*Corydalis cornutus*, Linn.), supposed eggs of.
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- FIG. 51. Spined Soldier-bug (*Arma spinosa*, Dallas).
- FIG. 52. Plum Sphinx (*Sphinx drupiferarum*, Sm. and Abbott), moth.
- FIG. 53. Native Gooseberry Saw-fly (*Pristiphora grossulariae*, Walsh).
- FIG. 54. Ichneumon Fly (*Microgaster*, Sp.).
- FIG. 55. Southern Cabbage Butterfly (*Pieris protodice*, Boisds), female.
- FIG. 56. Green Grape-vine Sphinx (*Chærocampa pampinatrix*, Smith), moth.
- FIG. 57. Army-worm (*Leucania unipuncta*, Haworth).
- FIG. 58. Potherb Butterfly (*Pieris oleracea*, Harris: *casta*, Kirby), pupa.
- FIG. 59. Hessian Fly (*Cecidomyia destructor*, Say).
- FIG. 60. Red-tailed Tachina, (*Exorista leucaniæ*, Kirk).
- FIG. 61. Spotted Pelidnota (*Pelidnota punctata*, Linn.).

- FIG. 62. Harlequin Cabbage-bug (*Strachia histrionica*, Harris), open.
 FIG. 63. Squash-bug (*Coreus tristis*, DeGeer).
 FIG. 64. (*Diplax Elisa*, Hagen).
 FIG. 65. Common Tiger-beetle (*Cicindela vulgaris*, Say), larva.
 FIG. 66. Common Tiger-beetle (*Cicindela vulgaris*, Say), beetle.
 FIG. 67. Purple Tiger-beetle (*Cicindela purpurea*, Oliv.).
 FIG. 68. Hairy-necked Tiger-beetle (*Cicindela hirticollis*, Say).
 FIG. 69. Handsome Tiger-beetle (*Cicindela generosa*, Dejean).
 FIG. 70. Green Caterpillar-hunter (*Calosoma scrutator*, Fabr.).
 FIG. 71. Glowing Calosoma (*Calosoma calidum*, Fabr.).
 FIG. 72. Murky Ground-beetle (*Harpalus caliginosus*, Say).
 FIG. 73. Pennsylvania Ground-beetle (*Harpalus pennsylvanicus*, DeGeer).
 FIG. 74. Pennsylvania Ground-beetle (*Harpalus pennsylvanicus*, DeGeer), larva.
 FIG. 75. Bombardier-beetle (*Brachinus fumans*, Linn.).
 FIG. 76. Buprestis Apple-tree Borer (*Chrysobothris femorata*, Fabr.).
 FIG. 77. Striped Blister-beetle (*Epicauta vittata*, Fabr.).
 FIG. 78. Plum-curculio (*Conotrachelus nenuphar*, Herbst).
 FIG. 79. Apple-tree Borer (*Stenocorus putator*).
 FIG. 80. Cucumber-beetle (*Diabrotica vittata*, Fabr.)
 FIG. 81. Twice-wounded Ladybird (*Chilocorus bivulnerus*, Muls.).
 FIG. 82. Spotted Ladybird (*Hippodamia maculata*, DeGeer).
 FIG. 83. Nine-dotted Ladybird (*Coccinella 9-notata*, Herbst).
 FIG. 84. Convergent Ladybird (*Hippodamia convergens*, Guen.).

1873.—REPORT IV.

- FIG. 1. Raspberry-root Gall-fly (*Rhodites radicum*, Osten Sacken.)
 FIG. 2. Red-necked Agrilus (*Agrilus ruficollis*, Fabr.) ; raspberry-cane affected.
 FIG. 3. Red-necked Agrilus (*Agrilus ruficollis*, Fabr.) ; larva.
 FIG. 4. Red-necked Agrilus (*Agrilus ruficollis*, Fabr.) ; c, beetle.
 FIG. 5. Tree-cricket (*Ecanthus niveus*, Say), male.
 FIG. 6. Tree-cricket (*Ecanthus niveus*, Say), female.
 FIG. 7. Fall Web-worm (*Hyphantria tector*, Harris.)
 FIG. 8. Oblique-banded Leaf-roller (*Lozotenia rosaceana*, Harris), larva and pupa.
 FIG. 9. Oblique-banded Leaf-roller (*Lozotenia rosaceana*, Harris), moth.
 FIG. 10. Raspberry Geometer (*Aplodes rubivora*, Riley) ; a, raspberry, with larva ; b, segment of skin of larva ; c, moth ; d, wings enlarged.
 FIG. 11. Flea-like Negro-bug (*Corimelaena pulicaria*, Germ.).
 FIG. 12. Strawberry False-worm (*Emphytus maculatus*, Norton).
 FIG. 13. Tiger Swallow-tail Butterfly (*Papilio turnus*, Linn.).
 FIG. 14. Tiger Swallow-tail Butterfly (*Papilio turnus*, Linn.), larva.
 FIG. 15. Isabella Tiger-moth (*Pyrrharctia* [*Spilosoma*] *Isabella*, Sm.) ; a, larva ; b, pupa ; c, moth.
 FIG. 16. (*Arctia Saundersii*, Grote).
 FIG. 17. Gigantic Water-bug (*Belostoma grandis*, Linn.).
 FIG. 18. Many-lined Iulus (*Iulus multistriatus*, Walsh).
 FIG. 19. Bacon Beetle (*Dermestes lardarius*, Linn.) ; a, larva ; b, one of its barbed hairs.
 FIG. 20. Clothes-moth (*Tinea flavifrontella*, Linn.), moth.
 FIG. 21. Clothes-moth (*Tinea flavifrontella*; Linn.), larva and case.
 FIG. 22. Mosquito (*Culex pipiens* ? Linn.).
 FIG. 23. Head of Mosquito, magnified.
 FIG. 24. Tongue of House-fly (*Musca domestica*).
 FIG. 25. Horse Breeze-fly (*Æstrus* [*gasterophilus*] *equi*, Fabr.), male.
 FIG. 26. Horse Breeze-fly (*Æstrus* [*gasterophilus*] *equi*, Fabr.), female.
 FIG. 27. Horse Breeze-fly (*Æstrus* [*gasterophilus*] *equi*, Fabr.), eggs on horse-hair.

- FIG. 28. Horse Breeze-fly (*Estrus [gasterophilus] equi*, Fabr.), larvæ adhering to stomach of horse.
 FIG. 29. Ox Bot-fly (*Estrus bovis*, Fabr.).
 FIG. 30. Ox Bot-fly (*Estrus bovis*, Fabr.), fly emerging from pupa ; ovipositor of female.
 FIG. 31. Sheep Bot-fly (*Estrus ovis*, Linn.).

1874.—REPORT V.

- FIG. 1. Io Moth (*Saturnia [hyperchiria] Io*, Fabr.), larva.
 FIG. 2. Io Moth (*Saturnia [hyperchiria] Io*, Fabr.), spines of larva.
 FIG. 3. Io Moth (*Saturnia [hyperchiria] Io*, Fabr.), male.
 FIG. 4. Io Moth (*Saturnia [hyperchiria] Io*, Fabr.), female.
 FIG. 5. Flat headed Apple-tree Borer (*Chrysobothris femorata*, Fabr.).
 FIG. 6. Flat-headed Apple-tree Borer (*Chrysobothris femorata*, Fabr.), larva.
 FIG. 7. Currant-worm (*Nematus ventricosus*, Klug.); leaf with eggs.
 FIG. 8. Currant-worm (*Nematus ventricosus*, Klug.), larva.
 FIG. 9. Currant-worm (*Nematus ventricosus*, Klug.), fly.
 FIG. 10. Larva and eggs of Lace-wing fly (*Chrysopa*, Sp.).
 FIG. 11. Lace-wing Fly (*Chrysopa*, Sp.).
 FIG. 12. Currant Measuring-worm (*Ellopiæ [abraxi] ribearia*, Fitch).
 FIG. 13. Currant Measuring-worm (*Ellopiæ [abraxi] ribearia*, Fitch).
 FIG. 14. White-marked Tussock-moth (*Orgyia leucostigma*, Sm. and Abb.), larva.
 FIG. 15. White-marked Tussock-moth (*Orgyia leucostigma*, Sm. and Abb.), moth, male.
 FIG. 16. White-marked Tussock-moth (*Orgyia leucostigma*, Sm. and Abb.), female moth, pupa.
 FIG. 17. Cecropia Moth (*Attacus cecropia*, Linn.), female.
 FIG. 18. Cecropia Moth (*Attacus cecropia*, Linn.), cocoon.
 FIG. 19. Cecropia Moth (*Attacus cecropia*, Linn.), larva.
 FIG. 20. Long-tailed Ophion (*Ophion macrurum*, Linn.).
 FIG. 21. Long-tailed Ophion (*Ophion macrurum*, Linn.).
 FIG. 22. Yellow-tailed Tachina-fly (*Exorista flavicauda*, Riley).
 FIG. 23. Cecropia Chalcis-fly (*Chalcis marie*, Riley).
 FIG. 24. Divorced Cryptus (*Cryptus nuncius*, Say : *extrematis*, Cresson), cocoon.
 FIG. 25. Clouded-sulphur Butterfly (*Colias philodice*, Godt.), male.
 FIG. 26. Clouded-sulphur Butterfly (*Colias philodice*, Godt.), female.
 FIG. 27. White-lined Morning-sphinx (*Deilephila lineata*, Fabr.).
 FIG. 28. White-lined Morning-sphinx (*Deilephila lineata*, Fabr.), larva, common variety.
 FIG. 29. White-lined Morning-sphinx (*Deilephila lineata*, Fabr.), larva, black variety.
 FIG. 30. 17-year Locust (*Cicada septemdecim*, Linn.); *a*, pupa ; *b*, empty pupa case ; *c*, perfect insect ;
d, perforations in twig for deposit of eggs ; *e*, egg.
 FIG. 31. Rocky Mountain Locust (*Caloptenus spretus*, Thomas).
 FIG. 32. Katydid (*Cyrtophyllum concavum*, Say).
 FIG. 33. Red-legged Locust (*Caloptenus femur-rubrum*, Burm.).
 FIG. 34. Hatful Locust (*Caloptenus spretus*, Uhler).
 FIG. 36. Wier's Shingle Locust-trap, shut.
 FIG. 37. Wier's Shingle Locust-trap, open.
 FIG. 38. Ring-legged Pimpla (*Pimpla annulipes*, Br.), female.
 FIG. 39. Delicate Long-sting (*Macrocentrus delicatus*, Cress.), female.
 FIG. 40. Pear-tree Slug (*Selandria cerasi*, Peck).
 FIG. 41. Pear-tree Slug (*Selandria cerasi*, Peck), larvæ ; *a*, enlarged.
 FIG. 42. Grape-vine Phylloxera (*Phylloxera vastatrix*, Planchon) : Type *Gallæcola* or Gall-inhabiting ; leaf
 with Galls.
 FIG. 43. Grape-vine Phylloxera (*Phylloxera vastatrix*, Planchon) : Type *Gallæcola*, different stages.
 FIG. 44. Grape-vine Phylloxera (*Phylloxera vastatrix*, Planchon) : Type *Radicola*, or Root-inhabiting ; dif-
 ferent stages.
 FIG. 45. Grape-vine Phylloxera (*Phylloxera vastatrix*, Planchon) : Type *Radicola*, enlarged.
 46. Phylloxera Mite (*Tyroglyphus phylloxera*, Planchon and Riley), dorsal and ventral view.

1875.—REPORT VI.

- FIG. 1. Spring Canker-worm (*Anisopteryx vernata*, Peck); *a*, larva; *b*, eggs, one enlarged; *c*, side-view enlarged, of one joint of larva; *d*, dorsal view of same.
- FIG. 2. Spring Canker-worm (*Anisopteryx vernata*, Peck); *a*, male moth; *b*, female, natural size; *c*, part of antenna of female; *d*, segment of female abdomen; *e*, ovipositor, enlarged.
- FIG. 3. Fall Canker-worm (*Anisopteryx pomataria*, Harris); *a*, *b*, egg enlarged, side and top views; *c*, *d*, joint of larva, enlarged, side and dorsal view; *e*, eggs, natural size; *f*, caterpillar; *g*, female chrysalis; *h*, tip of chrysalis, enlarged.
- FIG. 4. Fall Canker-worm (*Anisopteryx pomataria*, Harris); *a*, male moth; *b*, female, natural size; *c*, joints of female antenna; *d*, one joint of female abdomen, enlarged.
- FIG. 5. Glowing Calosoma (*Calosoma calidum*, Fabr.).
- FIG. 6. Green Caterpillar-hunter (*Calosoma scrutator*, Fabr.).
- FIG. 7. Tent-caterpillar (*Clistocampa Americana*, Harris); *a*, *b*, larvæ; *c*, eggs; *d*, pupa.
- FIG. 8. Forest Tent-caterpillar (*Clistocampa sylvatica*, Harris); larva.
- FIG. 9. English Cabbage-butterfly (*Pieris rapæ*, Linn.), male.
- FIG. 10. English Cabbage-butterfly (*Pieris rapæ*, Linn.), female.
- FIG. 11. English Cabbage-butterfly (*Pieris rapæ*, Linn.); *a*, larva; *b*, pupa.
- FIG. 12. Pear-tree Slug (*Selandria cerasi*, Peck).
- FIG. 13. Pear-tree Slug (*Selandria cerasi*, Peck), larva.
- FIG. 14. Gooseberry-worm (*Nematus ventricosus*, Klug.).
- FIG. 15. Currant Measuring-worm (*Ellopiæ [abraxi] ribearia*, Fitch).
- FIG. 16. Colorado Potato-beetle (*Doryphora decemlineata*, Say).
- FIG. 17. Beautiful Deiopeia (*Deiopeia bella*, Drury.)
- FIG. 18. Clover Drasteria (*Drasteria erecthea*, Cram.)
- FIG. 19. Beautiful Wood-nymph (*Eudryas grata*, Fabr.).
- FIG. 20. Beautiful Wood-nymph (*Eudryas grata*, Fabr.), larva.
- FIG. 21. Red-tailed Tachina-fly (*Exorista leucaniæ*).
- FIG. 22. Cylindrical Orthosoma (*Orthosoma cylindricum*, Fabr.).
- FIG. 23. Cylindrical Orthosoma (*Orthosoma cylindricum*, Fabr.), larva.
- FIG. 24. American Silk-worm (*Telea polyphemus*), male.
- FIG. 25. American Silk-worm (*Telea polyphemus*), female.
- FIG. 26. American Silk-worm (*Telea polyphemus*), larva.
- FIG. 27. American Silk-worm (*Telea polyphemus*), cocoon.
- FIG. 28. American Silk-worm (*Telea polyphemus*), pupa.
- FIG. 29. Long-tailed Ophion (*Ophion macrurum*, Linn.).
- FIG. 30. Rocky Mountain Locust (*Caloptenus spretus*, Thomas).

1876.—REPORT VII.

PLATE.

- FIG. 1. (*Meloe angusticollis*, Say).
- FIG. 2. (*Cysteodemus armatus*, Lec).
- FIG. 3. Chinese Blister-beetle (*Mylabris cichorii*, Linn.).
- FIG. 4. (*Macrobasis albida*, Say).
- FIG. 5. (*Macrobasis atrivittata*, Lec).
- FIG. 6. (*Macrobasis segmentata*, Say).
- FIG. 7. Striped Blister-beetle (*Epicauta vittata*, Fab.).
- FIG. 8. Ash-gray Blister-beetle (*Epicauta cinerea*, Forst.).
- FIG. 9. Spanish Blister-beetle (*Cantharis vesicatoria*, Lec).
- FIG. 10. Spanish Blister-beetle (*Cantharis vulnerata*, Lec).
- FIG. 11. Spanish Blister-beetle (*Cantharis nutalli*, Say).
- FIG. 12. (*Pyrota mylabrina*, Cher.),
- FIG. 13. (*Tegrodera erosa*, Lec).

WOOD-CUTS.

- FIG. 1. Larva of Meloe-beetle.
 FIG. 2. Red-legged Locust (*Caloptenus femur-rubrum*, Brown).
 FIG. 3. Luna Moth (*Actias luna*, Linn.).
 FIG. 4. (*Deilephila chamænerii*, Harris).
 FIG. 5. White-lined Morning-sphinx (*Deilephila lineata*, Fabr.).
 FIG. 6. White-lined Morning-sphinx (*Deilephila lineata*, Fabr.), larva.
 FIG. 7. White-lined Morning-sphinx (*Deilephila lineata*, Fabr.), larva, black variety.
 FIG. 8. Black Swallow-tail Butterfly (*Papilio asterias*, Cramer).
 FIG. 9. Gooseberry Fruit-worm (*Pempelia grossulariæ*, Packard).
 FIG. 10. Bee-moth (*Galleria cereana*, Fabr.); a, larva; b, cocoon; c, pupa; d, e, moth.
 FIG. 11. Bee-killer (*Trupanea apivora*, Fitch).
 FIG. 12. Ring-legged Pimpla (*Pimpla annulipes*, Br.).
 FIG. 13. Delicate Long-sting (*Macrocentrus delicatus*, Cresson).
 FIG. 14. Sigalphus Curculio-parasite (*Sigalphus curculionis*, Fitch); a, larva; b, cocoon; c, pupa.
 FIG. 15. Sigalphus Curculio-parasite (*Sigalphus curculionis*, Fitch); a, male; b, female; c, antenna.
 FIG. 16. Porizon Curculio-parasite (*Porizon conotracheli*, Riley); a, male; b, female; c, antenna.

1877.—REPORT VIII.

PLATE.

- FIG. 1. (*Monohammus scutellatus*, Say).
 FIG. 2. Maple-tree Borer (*Clytus speciosus*, Say).
 FIG. 3. Cylindrical Orthosoma (*Orthosoma cylindricum*, Fabr.).
 FIG. 4. Locust-tree Borer (*Clytus robinicæ*, Forst.).
 FIG. 5. Buprestis Apple-tree Borer (*Chrysobothris femorata*, Fabr.).
 FIG. 6. White-lined Apple-tree Borer (*Saperda candida*, Fabr.).
 FIG. 7. (*Monohammus confusor*, Kirby).
 FIG. 8. Raspberry Twig-girdler (*Oberea tripunctata*, Fab.).

WOOD-CUTS.

- FIG. 1. Cylindrical Orthosoma (*Orthosoma cylindricum*, Fabr.), larva.
 FIG. 2. Buprestis Apple-tree Borer (*Chrysobothris femorata*, Fabr.).
 FIG. 3. Two-striped Apple-tree Borer (*Saperda candida*, Fabr.).
 FIG. 4. Apple Aphis (*Aphis mali*, Fabr.).
 FIG. 5. Apple Aphis (*Aphis mali*, Fabr.), larva enlarged.
 FIG. 6. Apple-root Plant-louse (*Eriosoma pyri*, Fitch).
 FIG. 7. Root-louse Syrphus-fly (*Pipiza radicans*, Walsh and Riley).
 FIG. 8. Nine-spotted Ladybird (*Coccinella 9-notata*, Herbst).
 FIG. 9. Larva of Ladybird.
 FIG. 10. Spotted Ladybird (*Hippodamia maculata*, DeGeer).
 FIG. 11. Thirteen-spotted Ladybird (*Hippodamia 13-punctata*, Linn.).
 FIG. 12. Trim Ladybird (*Coccinella munda*, Say).
 FIG. 13. Convergent Ladybird (*Hippodamia convergens*, Guen.).
 FIG. 14. Fifteen-spotted Mysia (*Mysia 15-punctata*, Oliv.).
 FIG. 15. Twice-stabbed Ladybird (*Chilocorus bivulnerus*, Muls.).
 FIG. 16. Twice-stabbed Ladybird (*Chilocorus bivulnerus*, Muls.), larva.
 FIG. 17. *Chrysopa* species.
 FIG. 18. *Chrysopa* species, larva and eggs.
 FIG. 19. *Syrphus*-fly species.
 FIG. 20. *Syrphus*-fly species, larva.
 FIG. 21. Tent-caterpillar (*Clisiocampa Americana*, Harris), larva.
 FIG. 22. Tent-caterpillar (*Clisiocampa Americana*, Harris), moth, male.
 FIG. 23. Tent-caterpillar (*Clisiocampa Americana*, Harris), moth, female.
 FIG. 24. Tent-caterpillar of the Forest (*Clisiocampa sylvatica*, Harris), larva.

WOOD-CUTS—Continued.

- FIG. 25. Currant-bush Borer, (*Ageria tipuliformis*, Linn.).
 FIG. 26. Currant-worm (*Nematus ventricosus*, Klug), larva.
 FIG. 27. Currant-worm (*Nematus ventricosus*, Klug), fly.
 FIG. 28. Currant-worm (*Nematus ventricosus*, Klug), leaf with larva.
 FIG. 29. Gooseberry Fruit-worm (*Pempelia grossulariæ*, Packard).
 FIG. 30. May-beetle (*Phyllophaga quercina*, Knoch).
 FIG. 31. Spotted-Pelidnota (*Pelidnota punctata*, Linn.).
 FIG. 32. Grape-vine Flea-beetle (*Haltica chalybea*, Illiger).
 FIG. 33. Grape-vine Flea-beetle (*Haltica chalybea*, Illiger), beetle.
 FIG. 34. Codling-moth (*Carpocapsa pomonella*, Linn.).
 FIG. 35. Plum-curculio (*Conotrachelus nenuphar*, Herbst.).
 FIG. 36. Isabella Tiger-moth (*Arctia Isabella*, Sm.).
 FIG. 37. Willow Gall-fly (*Cecidomyia strobiloides*, O. S.).
 FIG. 38. Grape-vine Apple-gall (*Vitis-pomum*, Walsh and Riley).
 FIG. 39. Grape-vine Filbert-gall (*Vitis-coryloides*, W. and R.).
 FIG. 40. Grape-vine Tomato-gall (*Vitis-tomatos*, O. S.).
 FIG. 41. Grape-leaf Trumpet-gall (*Vitis-viticola*, O. S.).
 FIG. 42. Three-spotted Dragon-fly (*Libellula trimaculata*, DeGeer)
 FIG. 43. Dragon-fly, in different stages.
 FIG. 44. Four-spotted Dragon-fly (*Libellula quadrimaculata*, Linn.).
 FIG. 45. (*Diplax berenice*, Drury), male.
 FIG. 46. (*Diplax berenice*, Drury), female.
 FIG. 47. Larva of *Diplax*.
 FIG. 48. (*Nanniphya bella*, Uhler).
 FIG. 49. (*Agrion Saucium*., Brown).
 FIG. 50. Hessian-fly (*Cecidomyia destructor*, Say).

1878.—REPORT IX.

- FIG. 1. Bacon-beetle (*Dermestes lardarius*, Linn.).
 FIG. 2. Tulip-tree Bark-louse (*Lecanium tulipiferæ*).
 FIG. 3. Beating-net.
 FIG. 4. Beating-net.
 FIG. 5. Forest Tent-caterpillar (*Clisiocampa sylvatica*, Harris), larva.
 FIG. 6. Forest Tent-caterpillar (*Clisiocampa sylvatica*, Harris); a, egg cluster; c, upper surface of egg; d, arrangement of eggs.
 FIG. 7. Striped Cucumber-beetle (*Diabrotica vittata*, Fabr.)
 FIG. 8. Striped Cucumber-beetle (*Diabrotica vittata*, Fabr.), larva.
 FIG. 9. Striped Cucumber-beetle (*Diabrotica vittata*, Fabr.), pupa.
 FIG. 10. Squash-bug (*Coreus tristis*, DeGeer).
 FIG. 11. Oyster-shell Bark-louse (*Aspidiotus conchiformis*, Gmêlin).
 FIG. 12. Oyster-shell Bark-louse (*Aspidiotus conchiformis*, Gmêlin).
 FIG. 13. Maple-tree Borer (*Clytus speciosus*, Say).
 FIG. 14. Carpet-beetle (*Anthrenus scrophulariæ*); a, larva; b, skin of larva; c, pupa; d, beetle.
 FIG. 15. Lace-wing Fly (*Chrysopa*, Sp.)
 FIG. 16. Common Tiger-beetle (*Cicindela vulgaris*, Say).
 FIG. 17. Purple Tiger-beetle (*Cicindela purpurea*, Riv.)
 FIG. 18. Hairy-necked Tiger-beetle (*Cicindela hirticollis*, Say).
 FIG. 19. Six-spotted Tiger-beetle (*Cicindela sex-guttata*, Fabr.).
 FIG. 20. Handsome Tiger-beetle (*Cicindela generosa*, Dej.).
 FIG. 21. Larva of Tiger-beetle.
 FIG. 22. Glowing Calosoma (*Calosoma calidum*, Fabr.).
 FIG. 23. Green Caterpillar-hunter (*Calosoma scrutator*, Fabr.).

- FIG. 24. Murky Ground-beetle (*Harpalus caliginosus*, Say)
 FIG. 25. Pennsylvania Ground-beetle (*Harpalus pensylvanicus*, DeGeer).
 FIG. 26. Pennsylvania Ground-beetle (*Harpalus pensylvanicus*, DeGeer), larva.
 FIG. 27. Bombardier-beetle (*Brachinus fumans*, Linn.).
 FIG. 28. Nine-spotted Ladybird (*Coccinella novem-notata*, Herbst).
 FIG. 29. Plain Ladybird (*Coccinella munda*, Say).
 FIG. 30. Spotted Ladybird (*Hippodamia maculata*, DeGeer).
 FIG. 31. Thirteen-dotted Ladybird (*Hippodamia 13-punctata*, Linn.).
 FIG. 32. Convergent Ladybird (*Hippodamia convergens*, Guen.).
 FIG. 33. 15-spotted Mysia (*Mysia 15-punctata*, Oliv.).
 FIG. 34. The Twice-stabbed Ladybird (*Chilocorus bivulnerus*, Muls.).
 FIG. 35. Larva of Ladybird.
 FIG. 36. *Buprestis*.
 FIG. 37. Red-necked Agrilus (*Agrilus ruficollis*, Fabr.).
 FIG. 38. *Papilio Cresphontes*, Cram.)

1879.—REPORT X.

- FIG. 1. Carpet-bug (*Anthrenus scrophulariae*, Linn.).
 FIG. 2. Glassy Cut-worm (*Agrotis devastator*, Brace).
 FIG. 3. Greasy Cut-worm (*Agrotis telifera*, Harris).
 FIG. 4. Western striped Cut-worm (*Agrotis subgothica*, Haworth).
 FIG. 5. Dark-sided Cut-worm (*Agrotis cochranii*, Riley : var. *A. messoria*, Harris ?).
 FIG. 6. W-marked Cut-worm (*Agrotis clandestina*, Harris).
 FIG. 7. Common round-web Spider (*Epeira vulgaris*, Hentz) ; enlarged, under side.
 FIG. 8. Common round-web Spider (*Epeira vulgaris*, Hentz) ; enlarged, claws on terminal joints of legs.
 FIG. 9. Claw of Jumping Spider (*Salticus*, Sp.).
 FIG. 10. Common round-web Spider (*Epeira vulgaris*, Hentz) ; enlarged, upper side.
 FIG. 11. Arrangement of internal organs of a spider, enlarged.
 FIG. 12. *Mygale Hentzii*, enlarged.
 FIG. 13. *Drassus*, Sp., enlarged.
 FIG. 14. Common Grass-spider (*Agalena naevia*), enlarged.
 FIG. 15. Wolf-spider (*Lycosa*, Sp.), enlarged.
 FIG. 16. Grey Jumping-spider (*Salticus*, Sp.), enlarged.
 FIG. 17. Crab-spider (*Thomisus*, Sp.).
 FIG. 18. House-spider (*Theridion*, Sp.).
 FIG. 19. Biting apparatus of spider (*Epeira vulgaris*, Hentz).
 FIG. 20. Biting apparatus of spider (*Epeira vulgaris*, Hentz), claw enlarged.
 FIG. 21. Spinning apparatus (*Epeira vulgaris*, Hentz), enlarged.
 FIG. 22. Nest of spider (*Dolomedes*, Sp.).
 FIG. 23. Cobwebs.
 FIG. 24. Geometrical webs.
 FIG. 25. Flying-spiders.
 FIG. 26. Flying-spiders.
 FIG. 27. Trap-door-spiders—A, nest of *atypus* ; B, nest with thick door ; C, nest with thin door ; D, branched nest ; E, nest with two doors ; F, branched nest with two doors ; G, nest with two branches.
 FIG. 28. Cocoons of spiders (*Epeira strix*).
 FIG. 29. Cocoons of spiders (*Theridion*, Sp.).
 FIG. 30. Cocoons of spiders (*Argiope*, Sp.).
 FIG. 31. Pea-weevil (*Bruchus pisi*, Linn.), a, beetle ; b, larva ; c, pea infected.
 FIG. 32. Stag-beetle (*Lucanus dama*, Fabr.).
 FIG. 33. May-beetle (*Lachnosterna quercina*, Knoch).
 FIG. 34. Rose-bug (*Macroductylus subspinosus*, Fabr.).

- FIG. 35. Spotted Pelidnota (*Pelidnota punctata*, Linn.).
 FIG. 36. Goldsmith-beetle (*Cotalpa lanigera*, Linn.).
 FIG. 37. Flower-beetle (*Euryomia Inda*, Linn.).
 FIG. 38. Water-tiger (*Dytiscus Harrisii*).
 FIG. 39. Water-beetle (*Hydrophilus triangularis*).
 FIG. 40. Tiger Swallowtail (*Papilio turnus*, Linn.).
 FIG. 41. Tiger Swallowtail (*Papilio turnus*, Linn.), larva.
 FIG. 42. Achemon Sphinx (*Philampelus achemon*, Drury).
 FIG. 43. Achemon Sphinx (*Philampelus achemon*, Drury), larva.
 FIG. 44. Achemon Sphinx (*Philampelus achemon*, Drury), pupa.
 FIG. 45. (*Catocala ultronia*, Herbst).
 FIG. 46. Io-moth (*Saturnia Io*, Fabr.), larva.
 FIG. 47. Io-moth (*Saturnia Io*, Fabr.); moth, male.
 FIG. 48. Io-moth (*Saturnia Io*, Fabr.); moth, female.
 FIG. 49. American Currant-borer (*Psenocerus supernotatus*, Say).
 FIG. 50. Imported Currant-borer (*Ageria tipuliformis*, Linn.).
 FIG. 51. West Indian Fire-fly (*Pyrophorus noctilucus*).
 FIG. 52. Eyed Spring-beetle (*Alaus oculatus*, Linn.).
 FIG. 53. Wheat Wire-worm (*Agriotes mancus*, Say), larva.
 FIG. 54. Wheat Wire-worm (*Agriotes mancus*, Say), pupa.
 FIG. 55. Plum Curculio (*Conotrachelus nenuphar*, Herbst).
 FIG. 56. Sigalphus Curculio Parasite (*Sigalphus curculionis*, Fitch).
 FIG. 57. Porizon Curculio Parasite (*Porizon conotracheli*, Riley).

1880.—REPORT XI.

- FIG. 1. Glowing Calosoma (*Calosoma calidum*, Fabr.).
 FIG. 2. Green Caterpillar-hunter (*Calosoma scrutator*, Fabr.).
 FIG. 3. Woolly-bear (*Spilosoma virginica*, Fabr.).
 FIG. 4. Common Tiger-beetle (*Cicindela vulgaris*, Say).
 FIG. 5. Purple Tiger-beetle (*Cicindela purpurea*, Riv.).
 FIG. 6. Six-spotted Tiger-beetle (*Cicindela sexguttata*, Fabr.).
 FIG. 7. Hairy-necked Tiger-beetle (*Cicindela hirticollis*, Say).
 FIG. 8. Handsome Tiger-beetle (*Cicindela generosa*, Dej.).
 FIG. 9. Larva of Tiger-beetle (*Cicindela*, Sp.).
 FIG. 10. Tomato-worm (*Sphinx quinque-maculata*, Haworth).
 FIG. 11. Canadian Locust (*Caloptenus femur-rubrum*, Burm.).
 FIG. 12. Archippus Butterfly (*Danais Archippus*, Fabr.).
 FIG. 13. Maple-tree Borer (*Clytus speciosus*, Say).
 FIG. 14. Archippus Butterfly (*Danais Archippus*, Fabr.).
 FIG. 15. (*Libythea Bachmani*).
 FIG. 16. (*Papilio philenor*).
 FIG. 17. (*Papilio philenor*), larva.
 FIG. 18. (*Papilio philenor*), pupa.
 FIG. 19. (*Papilio crespontes*, Cramer).
 FIG. 20. Abbot Sphinx (*Thyreus Abbotii*, Swainson).
 FIG. 21. Turnip Flea-beetle (*Haltica nemorum*, Linn.).
 FIG. 22. Onion-fly (*Anthomyia ceparum*).
 FIG. 23. Cabbage-butterfly (*Pieris rapæ*, Linn.).
 FIG. 24. Cabbage-butterfly (*Pieris rapæ*, Linn.).
 FIG. 25. Eyed Elater (*Alaus oculatus*, Linn.).
 FIG. 26. Wheat-midge (*Cecidomyia tritici*).
 FIG. 27. Wheat Aphid (*Aphis granaria*).

- FIG. 28. Pear-tree Slug (*Selandria cerasi*, Peck).
 FIG. 29. Gooseberry Saw-fly (*Nematus ribesii*).
 FIG. 30. Asparagus Beetle (*Crioceris asparagi*, Linn.).
 FIG. 31. Apple Curculio (*Anthonomus quadrigibbus*, Say).
 FIG. 32. Pea Weevil (*Bruchus pisi*, Linn.).
 FIG. 33. Bean Weevil (*Bruchus fabæ*, Riley).
 FIG. 34. Rose bug (*Macrodactylus subspinosus*, Fabr.).
 FIG. 35. White-pine Weevil (*Pissodes strobi*, Peck).
 FIG. 36. Plum Curculio (*Conotrachelus nenuphar*, Herbst).
 FIG. 37. Plum Gouger (*Anthonomus prunicida*, Walsh).
 FIG. 38. Strawberry Crown-borer (*Tyloderma fragariæ*).
 FIG. 39. Sigalphus Curculio Parasite (*Sigalphus curculionis*, Fitch).
 FIG. 40. Quince Curculio (*Conotrachelus crategi*).
 FIG. 41. Imbricated Snout-beetle (*Epicærus imbricatus*).
 FIG. 42. Corn Snout-beetle (*Sphenophorus zææ*).
 FIG. 43. Potato-stalk Weevil (*Baridius trinitatus*).
 FIG. 44. Blue Digger-wasp (*Chlorion cyaneum*, Dahlb.).
 FIG. 45. Tiger Swallow-tail (*Papilio turnus*, Linn.).
 FIG. 46. Red-tailed Tachina-fly (*Exorista leucaniæ*, Kirk).
 FIG. 47. Cylindrical Orthosoma (*Orthosoma cylindricum*).
 FIG. 48. Giant Water-bug (*Belostoma grandis*, Linn.).
 FIG. 49. Rocky Mountain Locust (*Caloptenus spretus*, Uhler).
 FIG. 50. Three-spotted Dragon-fly (*Libellula trimaculata*, DeGeer).
 FIG. 51. Delicate Long-sting (*Macrocentrus delicatus*, Cress).
 FIG. 52. Army Worm (*Leucania unipuncta*, Haworth), larva.
 FIG. 53. Army Worm (*Leucania unipuncta*, Haworth), moth.
 FIG. 54. Gooseberry Saw-fly (*Nematus ventricosus*, Klug), eggs of fly.
 FIG. 55. Red Spider (*Tetranychus telarius*), male.
 FIG. 56. Harvest Bug (*Tetranychus autumnalis*).
 FIG. 57. Harvest Mite (*Trombidium irritans*).
 FIG. 58. House-fly Parasite (*Trombidium parasiticum*).
 FIG. 59. Grasshopper Parasite (*Trombidium gryllarium*).
 FIG. 60. Grasshopper Parasite (*Trombidium sericeum*).
 FIG. 61. Bird Tick (*Dermanyssus avium*).
 FIG. 62. (*Tyroglyphus Mycophagus*).
 FIG. 63. Cheese Mite (*Tyroglyphus siro*).
 FIG. 64. (*Tyroglyphus malus*).
 FIG. 65. Itch Mite (*Sarcoptes scabiei*), male.
 FIG. 66. Itch Mite (*Sarcoptes scabiei*), female in channel of human skin.
 FIG. 67. Wood Ant (*Formica rufa*), female.
 FIG. 68. Leaf-cutting Ant (*Eciton drephanophora*), neuter.
 FIG. 69. Worker Major (*Ectatomma ferruginea*).
 FIG. 70. Worker Minor (*Formica fulvacea*).
 FIG. 71. Worker Major (*Polyrhaceis arboricola*).
 FIG. 72. Worker Minor (*Eciton mexicana*).
 FIG. 73. Worker Minor (*Eciton sumichrasti*).
 FIG. 74. Mexican Honey-ant (*Myrmecocystus mexicanus*).

1881.—REPORT XII.

- FIG. 1. Satellite Sphinx (*Philampelus satellitia*, Linn.).
 FIG. 2. Satellite Sphinx (*Philampelus satellitia*, Linn.), larva.
 FIG. 3. Indian Cetonia (*Euryomia Inda*, Linn.).

- FIG. 4. Legged Maple-borer (*Aegeria aceris*, Clemens).
 FIG. 5. Red-humped Apple-tree Caterpillar (*Notodonta concinna*).
 FIG. 6. Red-humped Apple-tree Caterpillar (*Notodonta concinna*), larva.
 FIG. 7. Red-humped Apple-tree Caterpillar (*Notodonta concinna*), pupa.
 FIG. 8. Eyed Elater (*Alaus oculatus*).
 FIG. 9. Stag Beetle (*Lucanus dama*).
 FIG. 10. Asparagus Beetle (*Crioceris asparagi*, Linn.).
 FIG. 11. Onion Fly (*Anthomyia ceparum*, Bouche).
 FIG. 12. Clover-seed Midge (*Cecidomyia leguminicola*, Lint), larva.
 FIG. 13. Clover-seed Midge (*Cecidomyia leguminicola*, Lint), fly, female.
 FIG. 14. Clover-seed Midge (*Cecidomyia leguminicola*, Lint), fly, male.
 FIG. 15. Clover-root Borer (*Hylastes trifolii*, Muller).
 FIG. 16. Clover-stem Borer (*Languria mozardi*).
 FIG. 17. Clover-leaf Midge (*Cecidomyia trifolii*).
 FIG. 18. Clover-hay Worm (*Asopia costalis*, Fabr.).
 FIG. 19. Clover Drasteria (*Drasteria erichtea*, Cramer).
 FIG. 20. Clouded Sulphur-butterfly (*Colias philodice*, Godt.), male.
 FIG. 21. Clouded Sulphur-butterfly (*Colias philodice*, Godt.), female.
 FIG. 22. Abbot Sphinx (*Thyreus Abbotii*, Swainson).
 FIG. 23. (*Deilephila chamenerii*, Harris).
 FIG. 24. White-lined Morning-sphinx (*Deilephila lineata*, Fabr.), larva.
 FIG. 25. White-lined Morning-sphinx (*Deilephila lineata*, Fabr.), larva, black variety.
 FIG. 26. White-lined Morning-sphinx (*Deilephila lineata*, Fabr.), moth.
 FIG. 27. Green Grape-vine Caterpillar (*Darapsa myron*, Cramer), larva.
 FIG. 28. Green Grape-vine Caterpillar (*Darapsa myron*, Cramer), parasite on larva.
 FIG. 29. Green Grape-vine Caterpillar (*Darapsa myron*, Cramer), larva with parasite.
 FIG. 30. Green Grape-vine Caterpillar (*Darapsa myron*, Cramer), cocoon.
 FIG. 31. Green Grape-vine Caterpillar (*Darapsa myron*, Cramer), moth.
 FIG. 32. Satellite Sphinx (*Philampelus pandorus*, Hubner).
 FIG. 33. Satellite Sphinx (*Philampelus pandorus*, Hubner), larva.
 FIG. 34. Achemon Sphinx (*Philampelus achemon*, Drury), larva.
 FIG. 35. Achemon Sphinx (*Philampelus achemon*, Drury), pupa.
 FIG. 36. Achemon Sphinx (*Philampelus achemon*, Drury), moth.
 FIG. 37. Tomato Worm (*Sphinx quinque-maculata*, Haworth).
 FIG. 38. Plum Sphinx (*Sphinx Drupiferarum*, Sm. and Abb.), larva.
 FIG. 39. Plum Sphinx (*Sphinx Drupiferarum*, Sm. and Abb.), pupa.
 FIG. 40. Plum Sphinx (*Sphinx Drupiferarum*, Sm. and Abb.), moth.
 FIG. 41. Burying Beetle (*Necrophorus velutinus*).
 FIG. 42. Woolly Aphis of the Apple (*Schizoneura lanigera*, Hausm), on twigs.
 FIG. 43. Woolly Aphis of the Apple (*Schizoneura lanigera*, Hausm), on root.
 FIG. 44. Codling Moth (*Carpocapsa pomonella*, Linn.).
 FIG. 45. Oyster-shell Bark-louse (*Mytilaspis pomicorticis*, Riley).
 FIG. 46. Oyster-shell Bark-louse (*Mytilaspis pomicorticis*, Riley), infested twig.
 FIG. 47. Gooseberry Saw-fly (*Nematus ribesii*, Curtis), leaf with eggs.
 FIG. 48. Gooseberry Saw-fly (*Nematus ribesii*, Curtis), larva.
 FIG. 49. Gooseberry Saw-fly (*Nematus ribesii*, Curtis), fly.
 FIG. 50. Pear-tree Slug-worm (*Selandria cerasi*, Curtis).
 FIG. 51. Gooseberry Magpie-moth (*Abraxas grossulariata*, Stephens), larva and pupa.
 FIG. 52. Gooseberry Magpie-moth (*Abraxas grossulariata*, Stephens), moth.

1882.—REPORT XIII.

- FIG. 1. Southern Cabbage-butterfly (*Pieris protodice*, Boisd), male.
 FIG. 2. Southern Cabbage-butterfly (*Pieris protodice*, Boisd), female.
 FIG. 3. Southern Cabbage-butterfly (*Pieris protodice*, Boisd), larva.
 FIG. 4. (*Ecpantheria scribonia*, Hubner), larva.
 FIG. 5. (*Ecpantheria scribonia*, Hubner), moth.
 FIG. 6. American Silk-worm (*Telea polyphemus*, Linn.), larva.
 FIG. 7. American Silk-worm (*Telea polyphemus*, Linn.), cocoon.
 FIG. 8. American Silk-worm (*Telea polyphemus*, Linn.), pupa.
 FIG. 9. American Silk-worm (*Telea polyphemus*, Linn.), male moth.
 FIG. 10. American Silk-worm (*Telea polyphemus*, Linn.), female moth.
 FIG. 11. Long-tailed Ophion (*Ophion macrurum*, Linn.).
 FIG. 12. Apply Fly (*Drysophila ampelophila*).
 FIG. 13. Apple Fly (*Drysophila ampelophila*), larva and pupa.
 FIG. 14. Luna Moth (*Actias luna*, Linn.).
 FIG. 15. Luna Moth (*Actias luna*, Linn.), larva.
 FIG. 16. West Indian Fire-fly (*Pyrophorus noctilucus*).
 FIG. 17. Mosquito (*Culex pipiens*, Linn.).
 FIG. 18. Mosquito (*Culex pipiens*, Linn.), mouth of.
 FIG. 19. Wheat-midge (*Cecidomyia tritici*, Kirby),
 FIG. 20. Wheat-midge (*Cecidomyia tritici*, Kirby), wings folded.
 FIG. 21. Wheat-midge (*Cecidomyia tritici*, Kirby), eggs.
 FIG. 22. Wheat-midge (*Cecidomyia tritici*, Kirby), larva.
 FIG. 23. Wheat-midge (*Cecidomyia tritici*, Kirby), kernel of wheat affected by.
 FIG. 24. Hessian-fly (*Cecidomyia destructor*, Say).
 FIG. 25. Clover-leaf Midge (*Cecidomyia trifolii*).
 FIG. 26. Clover-seed Midge (*Cecidomyia leguminicola*, Linn.), larva.
 FIG. 27. Clover-seed Midge (*Cecidomyia leguminicola*, Linn.), female fly.
 FIG. 28. Clover-seed Midge (*Cecidomyia leguminicola*, Linn.), male fly.
 FIG. 29. Gall-fly (*Cecidomyia strobiloides*, O. S.).
 FIG. 30. Grape-vine Apple-gall (*Vitis pomum*, W. and R.).
 FIG. 31. Grape-vine Filbert-gall (*Vitis coryloides*, W. and R.).
 FIG. 32. Grape-leaf Trumpet-gall (*Vitis viticola*, O. S.).
 FIG. 33. Grape-vine Tomato-gall (*Vitis tomatos*, O. S.): (*Lasioptera vitis*, O. S.).
 FIG. 34. Resin-inhabiting Diplosis (*Diplosis resincola*, O. S.).
 FIG. 35. Horse-fly (*Tabanus atratus*, Fabr.).
 FIG. 36. Bee-killer (*Trupanea apivora*, Fitch).
 FIG. 37. *Syrphus-fly*, Sp.
 FIG. 38. *Syrphus-fly*, Sp., larva.
 FIG. 39. Root-louse Syrphus-fly (*Pipiza radicans*, W. and R.).
 FIG. 40. Horse Breeze-fly (*Æstrus equi*, Fabr.), male.
 FIG. 41. Horse Breeze-fly (*Æstrus equi*, Fabr.), female.
 FIG. 42. Horse Breeze-fly (*Æstrus equi*, Fabr.), eggs.
 FIG. 43. Horse Breeze-fly (*Æstrus equi*, Fabr.), larva.
 FIG. 44. Ox Bot-fly (*Æstrus bovis*, Latr.).
 FIG. 45. Ox Bot-fly (*Æstrus bovis*, Latr.), larva.
 FIG. 46. Sheep Bot-fly (*Æstrus ovis*, Linn.).
 FIG. 47. *Tachina* (?)——
 FIG. 48. Red-tailed Tachina-fly (*Exorista leucaniæ*, Kirk).
 FIG. 49. Flesh-fly (*Sarcophaga carnaria*, Linn.).
 FIG. 50. Flesh-fly (*Sarcophaga carnaria*, Linn.), larva.
 FIG. 51. Flesh-fly (*Sarcophaga sarraceniæ*, Riley).
 FIG. 52. Anthomyia Egg-parasite (*Anthomyia radicum*, Linn. : var. *Calopteni*, Riley).
 FIG. 53. Onion-fly (*Anthomyia ceparum*, Bouche).

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- FIG. 54. Onion-fly (*Ortalis flexa*, Wied.).
FIG. 55. Tongue of Common House-fly (*Musca domestica*, Linn.).
FIG. 56. Potato-beetle (*Lema trilineata*, Oliv.).
FIG. 57. Potato-beetle (*Lema trilineata*, Oliv.), larva.
FIG. 58. Asparagus-beetle (*Crioceris asparagi*, Linn.).
FIG. 59. Dominican Case-bearer (*Cascinoptera dominicana*, Fabr.).
FIG. 60. (*Chlamys plicata*, Oliv.).
FIG. 61. Grape-vine Fidia (*Fidia viticida*, Walsh).
FIG. 62. Grape-vine Colaspis (*Colaspis flavida*, Say), larva.
FIG. 63. Grape-vine Colaspis (*Colaspis flavida*, Say), beetle.
FIG. 64. Spined Soldier-bug (*Arma spinosa*, Dallas).
FIG. 65. The Belted Soldier-bug (*Perillus circumcinctus*, Say).
FIG. 66. The Many-banded Robber-bug (*Harpactor cinctus*, Fabr.).
FIG. 67. Great Lebia (*Lebia grandis*, Hentz).
FIG. 68. Fifteen-spotted Mysia (*Mysia 15-punctata*, Oliv.).
FIG. 69. Colorado Potato-beetle (*Doryphora 10-lineata*, Say).
FIG. 70. Striped Cucumber-beetle (*Diabrotica vittata*, Fabr.).
FIG. 71. Twelve-spotted Diabrotica (*Diabrotica 12-punctata*, Oliv.).
FIG. 72. Grape-vine Flea-beetle (*Haltica chalybea*, Illig.).
FIG. 73. Striped-turnip Flea-beetle (*Haltica striolata*, Fabr.).
FIG. 74. Cucumber Flea-beetle (*Haltica cucumeris*, Harris).
FIG. 75. Grape-vine Phylloxera (*Phylloxera vastatrix*, Planchon); type, *Gallæcola*, or Gall-inhabiting; leaf with galls.
FIG. 76. Grape-vine Phylloxera (*Phylloxera vastatrix*, Planchon); type, *Gallecola*, or louse.
FIG. 77. Grape-vine Phylloxera (*Phylloxera vastatrix*, Planchon); type, *Radicola* or Root-inhabiting; different stages.
FIG. 78. Grape-vine Phylloxera (*Phylloxera vastatrix*, Planchon); type, *Radicola* or Root-inhabiting; enlarged.
FIG. 79. Root-louse Syrphus-fly (*Pipiza radicans*, W. and R.).
FIG. 80. Phylloxera Mite (*Tyroglyphus phylloxera*, Planchon and Riley), dorsal and ventral view.
FIG. 81. (*Hoplophora arctata*, Riley).
FIG. 82. Grape Berry-moth (*Lobesia botrana*, Packard).
FIG. 83. Chinch-bug (*Micropus leucopterus*, Say).
FIG. 84. Seventeen-year Locust (*Cicada septemdecim*, Linn.).
FIG. 85. Seventeen-year Locust (*Cicada septemdecim*, Linn.); chambers of Cicada.
FIG. 86. Seventeen-year Locust (*Cicada septemdecim*, Linn.); young Cicada.
FIG. 87. Seventeen-year Locust (*Cicada septemdecim*, Linn.); winged Cicada.
FIG. 88. Grape Thrip (*Tettigonia vitis*, Harris).
FIG. 89. Large-winged Psylla (*Psylla*, Sp.).
FIG. 90. Apple Aphis (*Aphis mali*, Fabr.).
FIG. 91. Oyster-shell Bark-louse (*Aspidiotus conchiformis*, Gmêlin).
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PART II.—CLASSIFIED LIST OF INSECTS ILLUSTRATED.

The following list has been prepared in order to enable any one to ascertain whether any particular insect belonging to any specified order, has been figured in the Reports. The nomenclature of the Reports is retained.

The number of the Report is indicated in Roman, and of the Figure, in Arabic numerals.

HYMENOPTERA.

Chalcis mariæ Riley; V., 23.
Chlorion cyaneum Dahlb; XI., 44.
Cryptus nuncius Say; V.; 24.
Emphytus maculatus Norton; III., 14; IV., 12.
Eciton drephanophora: XI., 68.
Eciton mexicana: XI., 72.
Eciton sumichrasti: XI., 73.
Ectatomma ferruginea: XI., 69.
Formica rufa: XI., 67.
Formica fulvacea: XI., 70.
Isosoma vitis Saunders; I, 48, 49.
Isosoma hordei Harr.; II., 58, 59, 60; III., 6, 7.
Megachile brevis Say; II., 22.
Macrocentrus delicatus Cresson: V., 39; VII., 13; XI., 51.
Microgaster species: I., 35, 36; III., 54.
Myrmeococystus mexicanus: XI., 74.
Nematus ventricosus Klug: II., 26, 27, 28; V., 7, 8, 9; VI., 14; VIII., 26, 27, 28; XI., 52.
Nematus ribesii Curtis; XI., 29; XII., 47, 48, 49.
Ophion macrurum Linn.; V., 20, 21; VI., 29; XIII., 11.
Osmia Canadensis Cresson; III., 15.
Pimpla annulipes Br.; V., 38; VII., 12.
Porizon conotracheli Riley; VII., 16; X., 57.
Polyrhacis arboricola: XI., 71.
Pristiphora grossulariæ Walsh; II., 30; III., 53.
Selandria cerasi Peck; XI., 28; XII., 50.
Sigalphus curculionis Fitch; VII., 14, 15; X., 56.

COLEOPTERA.

Anthonomus quadrigibbus Say; I., 23; XI., 31.
Anthonomus prunicida Walsh; XI., 37.
Agriontes mancus Say; II., 64; X., 53, 54.
Agrilus ruficollis Fabr.; IV., 2, 3, 4; IX., 37.
Alaus oculatus Linn.; X., 52; XI., 25; XII., 8.
Anthrenus scrophulariæ: IX., 14; X., 1.
Brachinus fumans Linn.; III., 75; IX., 27.
Bruchus pisi Linn.; X., 31; XI., 32.
Bruchus fabæ Riley; XI., 33.
Baridius trinotatus Say; XI., 43.
Calosoma scrutator Fabr.; I., 22; III., 70; VI., 6; IX., 23; XI., 2.
Calosoma calidum Fabr.; II., 75; III., 71; VI., 5; IX., 22; XI., 1.

Cicindela vulgaris Say; III., 66; IX., 16; XI., 9.
Cicindela purpurea Riv.; III., 67; IX., 17; XI., 5.
Cicindela hirticollis Say; III., 68; IX., 18; XI., 7.
Cicindela generosa Dejean; III., 69; IX., 20; XI., 8.
Cicindela sexguttata Fabr.; IX., 19; XI., 6.
Chrysobothris femorata Say; I., 3; III., 76; V., 5, 6; VIII., 5, 12.
Chilocorus bivulnerus Muls.; I., 8, 9; III., 81; VIII., 15, 16; IX., 34.
Chlamys plicata Oliv.; XIII., 60.
Coccinella novemnotata Herbst; I., 14; II., 53, 71; III., 18, 83; VIII., 8, 9; IX., 28.
Coccinella munda Say; II., 50; VIII., 12; IX., 29.
Coccinella 13-punctata Linn.; II., 72.
Cantharis vesicatoria Linn.; VII., 9.
Cantharis vulnerata Linn.; VII., 10.
Cantharis nutalli Say; VII., 11.
Chauliognathus pennsylvanicus DeGeer; I., 56.
Clytus speciosus Say; III., 26; VIII., 2; IX., 13; XI., 13.
Clytus robiniæ Forst; VIII., 4.
Conotrachelus nenuphar, Herbst; I., 53; II., 23; III., 78; VIII., 35; X., 55; XI., 36.
Conotrachelus cratægi Walsh; XI., 40.
Cotalpa lanigera Linn.; X., 36.
Coscinopteris dominicana Fabr.; XIII., 59.
Colaspis flavida Say; XIII., 62, 63.
Crioceris asparagi Linn.; XI., 30; XII., 10; XIII., 58.
Cysteodemus armatus Lec; VII., 2.
Diabrotica vittata Fabr.; II., 66, 101, 102, 103; III., 80; IX., 7, 8, 9; XIII., 70.
Diabrotica 12-punctata Fabr.; II., 100; XIII., 71.
Dermostes lardarius Linn.; IV., 19; IX., 1.
Doryphora decem-lineata Say; II., 68; III., 36; VI., 16; XIII., 69.
Dytiscus Harrisii: X., 38.
Epiceurus imbricatus Say; XI., 41.
Epicauta vittata, Fabr.; II., 81, III., 77; VII., 7.
Epicauta cinerea Fabr.; II., 82; VII., 8.
Epicauta murina Lec.; II., 82.
Euryomia inda Linn.; X., 37; XI., 3; XII., 3.
Fidia viticida Walsh; XIII., 61.
Haltica chalybea Illiger; I., 46, 47; II., 14; VIII., 32, 33; XIII., 72.

Haltica cucumeris Harris; II., 104; XIII., 73.
Haltica nemorum Linn.; XI., 21.
Haltica striolata Fabr.; XIII., 73.
Harpalus caliginosus Say; II., 76; III., 50, 72; IX., 24.
Harpalus pennsylvanicus DeGeer; I., 54, 55; II., 77; III., 73, 74; IX., 25, 26.
Hippodamia maculata DeGeer; II., 49, 70; III., 82; VIII., 10; IX., 30.
Hippodamia 13-punctata Linn.; VII., 11; IX., 31.
Hippodamia convergens Guen.; II., 73; III., 84; VIII., 13; IX., 32.
Hydrophilus triangularis; X., 39.
Hylastus trifolii Muller; XII., 15.
Lachnosterna quercina Knoch; III., 8; X., 33.
Languria mozardi; XII., 16.
Lebia grandis Hentz; XIII., 67.
Lema trilineata Oliv.; II., 65, 67; XIII., 56, 57.
Lucanus dama Fabr.; X., 32; XII., 9.
Macroductylus subspinosus Fabr.; III., 1; X., 34.
Macrobasis albida Say; VII., 4.
Macrobasis atrivittata Lec.; VII., 5.
Macrobasis segmentata Say; VII., 6.
Meloe angusticollis Say; VII., 1.
Meloe larva; VII., 1.
Monohammus confusor Kirby; VIII., 7.
Monohammus scutellatus Say; VIII., 1.
Mylabris cichorii Linn.; VII., 3.
Mysia 15-punctata Oliv.; II., 74; III., 37; VIII., 14; IX., 33; XIII., 68.
Necrophorus velutinus; XII., 41.
Oberea tripunctata Fabr.; VIII., 8.
Orthosoma cylindricum Fabr.; VI., 22, 23; VIII., 3, pl.; Fig. 1; XI., 47.
Pelidnota punctata Linn.; I., 45; II., 13; III., 61; VIII., 31; X., 35.
Phyllophaga quercina Knoch; VIII., 30.
Psenocerus supernotatus Say; X., 49.
Pissodes strobi Peck; XI., 35.
Pyrophorus noctilucus; X., 51; XIII., 16.
Pyrota mylabrina Cheo.; VII., 12.
Saperda bivittata Say; I., 2.
Saperda candida Fabr.; VIII., 6, pl.; Fig. 3.
Sphenophorus Zeæ Walsh; XI., 42.
Stenocerus putator Peck; *S. villosus* Fabr.; I., 10, 11, 12; III., 79.
Tegrodera erosa Lec.; VII., 13.
Tyloderma fragariæ; XI., 38.

LEPIDOPTERA.

Colias philodice Godt.; V., 25, 26; XII., 20, 21.
Danais Archippus Fabr.; III., 39, 40, 41, 42, 43; XI., 12, 14.
Grapta interrogacionis, Godt.; III., 24.
Grapta progne Cram.; II., 33.
Libythea Bachmani Kirkland; XI., 15.
Limnitis disippus Godt.; III., 44, 45, 46.
Papilio asterias Cram.; VII., 8.
Papilio crespbonæ Cram.; IX., 38, XI., 19.
Papilio philenor Fabr.; XI., 16, 17, 18.

Papilio turnus Linn.; IV., 13, 14; X., 40, 41.
Pieris oleracea Harris; casta, Kirby; II., 87, 88; III., 58.
Pieris protodice, Boisd.; II., 89, 90, 91; III., 55; XIII., 1, 2, 3.
Pieris rapæ Linn.; II., 84, 85, 86; VI., 9, 10, 11; XI., 23, 24.
Abraxas grossulararia Stephens; XII., 51, 52.
Actias luna Linn.; VII., 3; XIII., 14, 15.
Agrotis devastator Brace; X., 2.
Agrotis cochranii Riley; X., 5.
Agrotis clandestina Harris; X., 6.
Agrotis messoria Harris; X., 5.
Agrotis subgothica Haworth; X., 4.
Agrotis telifera Harris; X., 3.
Acronycta psi Linn.; I., 60; II., 24.
Acronycta obliuata Sm. & Abb.; III., 13.
Ægeria tipuliformis Linn.; II., 39; VIII., 25; X., 50.
Ægeria cucurbitæ Harris; II., 96, 97, 98.
Ægeria acerni Clemens; XII., 4.
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