

**BULLETIN OF THE NEW YORK STATE
MUSEUM, NO. 37, VOL. 8, SEPTEMBER,
1900, ILLUSTRATED
DESCRIPTIVE CATALOGUE OF SOME OF
THE MORE IMPORTANT INJURIOUS AND
BENEFICIAL INSECTS**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649235834

Bulletin of the New York State Museum, No. 37, Vol. 8, september, 1900, Illustrated Descriptive Catalogue of Some of the More Important Injurious and beneficial insects by Ephraim Porter Felt

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

EPHRAIM PORTER FELT

**BULLETIN OF THE NEW YORK STATE
MUSEUM, NO. 37, VOL. 8, SEPTEMBER,
1900, ILLUSTRATED
DESCRIPTIVE CATALOGUE OF SOME OF
THE MORE IMPORTANT INJURIOUS AND
BENEFICIAL INSECTS**

Forestry
SD
431
F319

University of the State of New York

122

BULLETIN
OF THE
New York State Museum

FREDERICK J. H. MERRILL *Director*

No. 37 Vol. 8

September 1900

ILLUSTRATED DESCRIPTIVE CATALOGUE
OF SOME OF THE MORE IMPORTANT
INJURIOUS AND BENEFICIAL INSECTS

OF

NEW YORK STATE

By

EPHRAIM PORTER FELT D. Sc.
State entomologist



ALBANY

UNIVERSITY OF THE STATE OF NEW YORK

1900

10/24

CONTENTS

Fruit tree insects	7
Small fruit and vine insects.....	13
Shade tree pests	17
Garden insects	24
Grass insects	31
Household insects	33
Insects affecting stored food products	39
Beneficial insects	41
Formulas	44
Internal poisons	44
Contact insecticides	45
Insecticide and fungicide.....	47
Index	48

Proctos
Nat. Hist. Publ. Co.
5-16-22
19671

06-2-2-4-1-3

This catalogue by no means includes all the injurious insects attacking the classes of plants listed. It gives the more important characteristics of the insects represented in a collection prepared for exhibition at farmers institutes, granges, fairs and other gatherings where it might be advisable to make such a display. The species have also been represented by figures so far as the means at hand would permit. Many of the illustrations have been borrowed from other works, and a few have been made specially for this catalogue.

STAFF

EPHRAIM PORTER FELT

State entomologist

CHARLES S. BANKS

MARGARET F. BOYNTON T 6

Assistants

INJURIOUS AND BENEFICIAL INSECTS

FRUIT TREE INSECTS

1 **Apple tree tent-caterpillar** (*Clisiocampa americana*). The conspicuous web tents found in the forks of apple and cherry trees in May contain hairy, bluish black caterpillars marked with yellowish and with a white stripe along the back. The cocoons are spun the last of May, the light brown moths, with oblique white stripes across the fore wings, flying in June. The eggs, in belts incircling the smaller twigs, are covered with a brown, glistening protective substance and remain unhatched till spring.

Treatment: remove and destroy the eggs or crush the young in their nests. Spray the foliage of infested trees with poison in early spring.

2 **Codling-moth** (*Carpocapsa pomonella*). Familiar as the worm boring in apples near the core. The winter is passed by the caterpillar in small cavities under sheltering bark or

in crevices.

The moths appear shortly after the petals fall. There are usually two broods a year in New York state.

Treatment: band trees and kill worms collecting under the bands, destroy wormy apples, spray with poison shortly after the petals have fallen, and while the calyx lobes are still open. Prevent escape of the moths in the

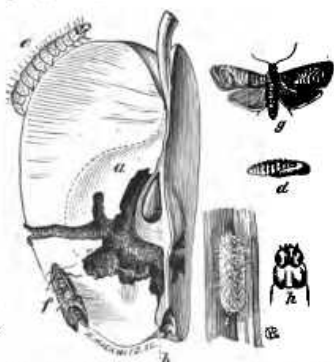


FIG. 3. Codling-moth: a burrow of larva; b point of entrance of larva; d pupa; e full-grown larva; f adult moth at rest; g same with wings spread; h head of full-grown larva (after Riley)

spring from fruit cellars or storehouses.

3 **Palmer worm** (*Ypsolophus pometellus*). Small wriggling, yellowish green caterpillars, having a dark stripe on



FIG. 1. Egg belt of apple tree tent-caterpillar, enlarged

either side and ornamented with rather conspicuous dark tubercles, were very numerous the latter part of June and early July in many orchards, where they skeletonized the leaves and ate large holes in the young fruit. The parent insect emerges from a slender brown pupal case and is a delicate, grayish moth.

Treatment: spray thoroughly in early June with poison.

4 Pistol case-bearer (*Coleophora malivorella*). Small caterpillars in pistol-shaped cases feed from April to May on the

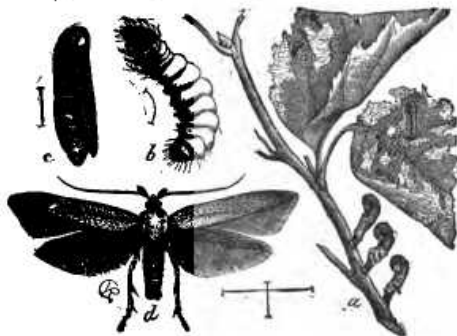


FIG. 3. Pistol case-bearer: a cases containing the larvae, natural size; b larvae; c pupa; d moth; e, c and d enlarged (after Riley)

opening flowers and young leaves of the apple tree, often skeletonizing the latter. The dark drab colored moths appear the latter part of June, deposit eggs and the young emerge there-

from the latter part of July. The winter is passed by the caterpillars within cases securely attached to the bark.

Treatment: spray infested trees with the poison just as the buds are opening, and repeat, if necessary, a few days to a week later.

5 Cigar case-bearer (*Coleophora fletcherella*). Small caterpillars in cigar-shaped cases feed from April to June on the buds and foliage of apple trees. The delicate, gray moths appear from the middle of June to the middle of July, lay eggs, which hatch in about two weeks, the young being leaf-miners. The caterpillars soon make cases, later attach them securely to the bark, pass the winter therein, and begin feeding again in early spring.

Treatment: spray infested trees with poison just as the buds are opening, and repeat, if necessary, a



FIG. 4. Cigar case-bearer—on bit of leaf—four times natural size (original)

few days to a week later. Kerosene emulsion is also effective, if applied at this time.

6 Bud moth (*Trmetocera ocellana*). Small brown caterpillars about $\frac{1}{2}$ inch long, with black head and thoracic shield, are frequently found eating the young leaves and flowers of apple and pear tree. The parent moth is an inconspicuous, grayish insect. The winter is passed by the half-grown caterpillars within almost invisible cocoons attached near a bud or rough place in the bark.



FIG. 6 Eye-spotted bud moth and its caterpillar

Treatment: spray thoroughly with poison as the buds begin to open.

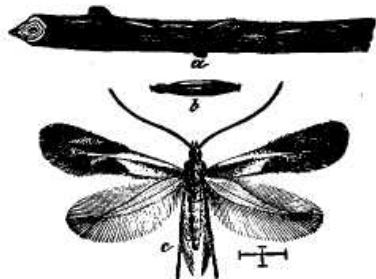


FIG. 8 Apple leaf Bucculatrix: a cocoons on twig; b cocoon enlarged; c moth enlarged

7 Apple leaf Bucculatrix (*Bucculatrix pomifoliella*). White, ribbed cocoons about $\frac{1}{4}$ inch long may be seen in clusters on smaller limbs of infested trees. The parent insect is a delicate moth marked with yellowish

and brown. The small larvae mine the leaves and later feed externally. There are two broods annually.

Treatment: spray infested foliage with poison in early June.

8 Rose beetle (*Macrodactylus subspinosus*). Greenish yellow beetles about $\frac{3}{8}$ inch long appear in swarms in May and attack the foliage of various trees and vines. The young are white grubs and live under ground on grass and the roots of other plants. This insect occurs most abundantly on a sandy soil.

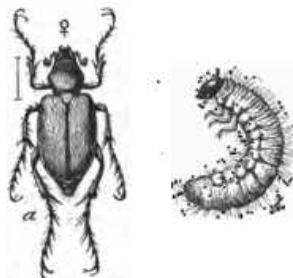


FIG. 7 Rose beetle: a adult beetle; b larva (reduced after Mariast. U. S. dep't agr., Year-book 1895)