

VOL. XVI. HOOD RIVER GLACIER

HOOD RIVER GLACIER. Published every Thursday by A. G. B. PUBLISHER.

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SOCIETIES. HOOD RIVER LODGE NO. 10, A. F. and A. M.

HOOD RIVER CHAPTER NO. 28, O. E. S. Meets second and fourth Tuesday evening

IDEWILDE LODGE NO. 10, I. O. O. F. Meets in Fraternal Hall, every Thursday night.

ELEN CAMPMENT, NO. 1, I. O. O. F. Regular meeting second and fourth Mondays of each month.

LAUREL HEBEKAH DEGREE LODGE NO. 1, I. O. O. F. Meets first and third Fridays in each month.

WALTON LODGE NO. 20, K. O. P. Meets in K. of P. hall every Wednesday night.

HOOD RIVER CAMP, NO. 720, W. O. W. Meets in K. of P. hall every Wednesday night.

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HOOD RIVER LODGE NO. 10, I. O. O. F. Meets in Fraternal Hall, every Thursday night.

RIVERSIDE LODGE NO. 10, I. O. O. F. Meets in K. of P. hall every Wednesday night.

OLYMPIA LODGE NO. 10, I. O. O. F. Meets in K. of P. hall every Wednesday night.

CLAYTON LODGE NO. 10, I. O. O. F. Meets in K. of P. hall every Wednesday night.

W. A. B. LODGE NO. 10, I. O. O. F. Meets in K. of P. hall every Wednesday night.

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ARRIVAL AND DEPARTURE OF MAI... HOOD RIVER. The postoffice is open daily between 9 a. m. and 7 p. m.

UNITED STATES LAND OFFICE, THE DALLES, OREGON, NOV. 23, 1904. Notice is hereby given that in compliance with the provisions of the act for the sale of timber lands in the state of California, Oregon, Nevada and Washington Territory...

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BUG THAT EATS HOOD RIVER MOTHS BOON TO THE FRUIT GROWER

State Authorities are Propagating the Parasite in California—How Insect works.

George Comper, government entomologist of Western Australia, and discoverer of the parasite which feeds upon the larvae of the codling moth, is busy at the office of the deputy commissioner of horticulture propagating the insect for shipment to the various counties of the state, says the San Francisco Chronicle.

Already nine counties have been supplied with the destroyer, and the tenth just went forward Friday.

Saturday, bronzed, unassuming, and with the determined lines of the traveler and patient investigator, Mr. Comper talked naturally about his great discovery on Tuesday.

"By no other states, aside from Western Australia and California was the parasite, the codling moth parasite," said he, "when the fact was made known. The entomologists of the various states of Australia belittled the discovery and advised their respective governments that the codling moth of California was the only state that immediately took action, by the co-operation of that state and Australia, with the result that we now have a parasite that will add millions of peckets of fruit growers of California by combatting the deadly work of the codling moth among the apple and pear trees. We have already liberated a great many colonies, and these are several hundred miles, even so far as that, which will be liberated tomorrow morning. Now, in a season or two, they will have multiplied enough to successfully cope with the codling moth."

Mr. Comper came to San Francisco from Spain, where he discovered the parasite, a wasp-like insect, bearing the name Epilachne Carbonaria. In the deputy commissioner's office was a jar containing prepared apple limbs in which the codling moth had placed their deadly larvae and upon which the parasites were industriously working, boring in with their ovipositors, laying the egg and sucking out the life of the fruit.

The scheme by which California and Australia co-operated in the search for a destroyer of the codling moth was consummated in this city about a year ago during Mr. Comper's visit here.

"I secured my information during that trip," said Mr. Comper, "by securing the parasite of the fruit fly from Brazil and took it with me personally to Western Australia and kept those insects alive for 45 days, a continuous journey, reaching Australia in the dead of winter."

"I had always been under the impression that the codling moth parasite existed in Southern Europe. Therefore, while I was in that country, I paid particular attention to the work of the codling moth, and while working on a separate and distinct insect from that at the time."

"The parasite belongs to the ichneumon family, and these insects are generally the enemy of all better fly parasites. It is a very small insect, and its work is done in the early part of the season, when the codling moth is in its larval stage. It is a member of a very large group of insects."

"The parasite searches out the larva of the codling moth, and when it finds it, it places where the codling moth larvae has grubbed under the loose bark of the tree, it immediately begins to place itself over the spot, and with the ovipositor (egg tube), it feels its way into the larva. If the larva is in the proper condition to receive the egg, not having received any egg before, the parasite immediately begins to loop her body under the bark, forming a cocoon with her feet. The cocoon is made of a silken web, and the parasite is in the cocoon until she has hatched. She then comes out of the cocoon and begins to work on the larva of the codling moth, which destroys the life of the larva of the moth. Before she thrusts out the ovipositor, she deposits an egg in the cocoon, and the larva of the parasite hatches. The egg is hatched by the warmth of the codling moth larva. That egg generally takes from 24 to 36 hours to hatch, when the young larva immediately proceeds to suck out the body juices of the codling larva. In the meantime the grub is growing and after attaining full size it transforms into a pupa, and in this state rests for a short period, when the adult parasite reappears to begin her work on the codling larva."

Edward M. Ehrhorn, deputy commissioner of horticulture, who had been assisting in a test for the propagation of the parasite, said: "The insects are growing in the laboratory as fast as the issue from the material which we receive permits. It is my idea to establish the parasite in the state first by establishing large colonies in the several counties where apple and pear growing is in vogue. If we succeed in establishing the parasite in this manner, more remote districts can be furnished with the parasite from the California brood."

"The value of this insect, according to Mr. Comper's report, is indicated by the fact that only 5 per cent of the apple crop in France and Spain is wormy, and they have three species of the codling moth against one here."

"We lose 50 per cent sometimes more or less of the apple crop here by the codling moth, notwithstanding the artificial spraying it receives. The fruit growers will be able to raise an apple crop here with probably one or two per cent infested with moths, as against 50 per cent now, with all spraying. It will double the profits of the apple and pear crop."

A jar of lively parasites that had been propagated at the deputy's office was taken to Sacramento and shown Governor Pardee, who asked eager questions and seemed to be

deeply interested in the outcome of the experiment.

Apple Holdings are Large. From the best estimate by the trade up to February 1, the total quantity of apples in storage in the United States in 1905 was in round 2,400,000 barrels, against 2,200,000 in 1904, says the Chicago Fruit and Produce News.

The increase in Canada this year over last is 120,000 barrels. Nova Scotia's decrease from last year of nearly 28,000 barrels. The total amount carried in common storage in the various states was very nearly 300,000 barrels in excess of last year.

The unusual keeping qualities of apples this year largely accounts for this. Colorado shows up with an amount in common storage nearly 12 times as large as a year ago, and in times of storage nearly a third more this season than last. West Virginia has over five times the amount of apples in common storage than a year ago, while the amount on cold storage exceeds that of 1904 by 1/2. The amount of apples held in common storage in New York is state is upwards of 500,000, against 365,000 in 1904, while the amount in cold storage is only 39,000 barrels less than a year ago.

PANSIES AS BIG AS SUNFLOWERS

Special to the Glacier. Portland, Feb. 22.—Did you ever see a pansy as big as a sunflower? If you come to the Lewis and Clark exposition next year you will see thousands as large. The pansy will, for the first time in the exposition history, form an important part of the decorative scheme of the fair.

Experience has shown that the climate of Oregon, which grows wheat and other farm products in wonderful profusion, is equally well adapted to the more ornamental and decorative flowers. Roses bloom in riotous profusion the year around in Oregon, and Portland has gained the name of the Rose City on this account.

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