



GATHERING MULBERRY LEAVES FOR SILK WORMS

## THE SILKWORM, AND ITS CULTURE IN HAWAII

**A**N EXCEEDINGLY useful insect, long ago introduced into Hawaii, is the silkworm, *Bombyx Mori*. The first specimens were imported by the Missionaries with a view to encouraging the natives to take up this form of productive occupation. The experiment was given up, however, before anything definite came of it. Some say that the pious and faithful observance of the Sabbath as taught by the Christian fathers prevented the natives from gathering the fresh leaves to feed the worms on that day.

Wm. Alanson Bryan writes:

“More recent experiments have proved beyond a doubt that silk of a good quality can be produced in Hawaii with as little effort as in any silk country in the world. The mulberry, especially the white mulberry, *Morus alba*, does well in Hawaii. As the leaves of this plant are the

favorite food of the worms, it is anticipated that silk culture will yet flourish in the islands as one of the home occupations for the employment of women and children.

“The newly-hatched larvæ of the silkworms is black or dark gray and covered with long, stiff hairs. But as the worm moults, it becomes lighter and lighter in color until during the last of the larval period it is creamy white. The cocoon is spun by the worm about itself as a protection and a retreat in which to pupate. It ranges in color through several shades of white, green, cream and rose, and varies greatly in size. To secure the silk the cocoons are heated in water or in an oven until the insect is killed;



SILK WORMS EATING THEIR MULBERRY LEAVES

the end of the thread is then secured and the cocoon unwound. The adult insect is a beautiful creamy white moth with two or more distinct brownish lines across the fore wing, and with the abdomen and thorax thickly covered with wooly scales.

“From two to three thousand years before the Christian era, probably



BOMBYX MORI MOTHERS AND THEIR EGGS

five thousand years ago, the silkworm was well and favorably known in the Far East, where, in China, silk culture was a well-established industry."

American worms, however, proved poor till crossed with the Chinese. The Chinese alone produced too little. This mixed cocoon was a fine, easily reeled one, and the mulberries grew thick and heavy with a fourteen-inch leaf (Hawaiian Annual, 1912, p. 67). The little industry prospered after the crossing experiments till in 1840 came an unprecedented drought, which dried up the trees. They were, moreover, covered by a wood louse that exhausted them. Then by a plump, many-colored spider the size of a horse chestnut, and the creature's hard, firm web. A strong wind also blew and whipped the leaves, crusting them with salt. Then the planters gave up in despair!

GERTRUDE WHITING.



SILK MOTHS IN CULTIVATOR'S TRAY