

in the first place by wasps, ants or other insect or by birds. The question was by no means a new one; it had been studied for a great many years and he believed that there was a great deal of actual ignorance about the whole question which ought to have been solved before this either by bee-keepers or the students of insect life. However, from all that he had been able to read he believed that Entomologists were almost all of one opinion that bees were not responsible for the injuries sometimes attributed to them.

He read from the Rural New Yorker, of November 10th an article entitled "Do Bees Injure Fruit" which was written by Professor Slingerland of Cornell University, one of the very first practical Entomologists in the United States. This article detailed some very careful experiments which were carried out by the Agricultural Department of Aurora, Illinois, by which colonies of bees were kept in a closed building so that they were brought to the stages of hunger, thirst and starvation by artificial conditions, but could not be induced in any instance to attack the fruit exposed unless it was first punctured or injured in some other way.

He thought that every member of the Bee-Keepers' Association should read this article and should be in a position to speak definitely to his neighbors and those with whom he came in contact on this question.

These tests were continued for many weeks and the conclusion drawn by Prof. Slingerland was that the experiments showed that honey bees are not only unable to penetrate the skin of fruits but they also appear to be unable, even when impelled by the direst necessity, to penetrate the films surrounding the

seeds of grapes even after the skin has been removed.

One of the contentions in regard to bees being a nuisance was that bees stung pickers in fruit gardens and worried horses when they went to the trough to drink. His own opinion was that although many people were afraid of bees and often made them sting by hitting at them that bees never sting except in self-defence or in defence of their hives. Again, it was claimed by many that the bees stung the fruit and this induced decay. This he believed was entirely erroneous, and although he had not tried any experiment he would certainly suppose that the formic acid which forms the poison of the bee's sting would have exactly the opposite effect and would preserve the fruit rather than cause it to decay. It was well known that wasps preserve caterpillars and other insects which they stored up for their young by stinging them and that insects stung by wasps remained alive but in a perfectly torpid condition for several weeks. The formic acid of a bee's sting is almost identical, chemically, with chloroform, so that practically the food of wasps was chloroformed and remained as fresh food for the grubs of the wasps for a long time owing to the antiseptic properties of the poison.

An interesting feature of this address was an explanation of many of the devices found in flowers as the means provided by nature to secure cross-fertilization. Some of the most prominent methods by which certain insects, particularly those which like the honey bee fly rapidly from plant to plant were illustrated by means of some excellent diagrams drawn by the Rev J. W. Fyles, F. L. S., of Quebec, showing the different forms of flowers and their parts; that the stamens and pistils, the two es-

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