

everything likely to give rise to loss in wintering. Of hybernation he says:—"Bees hybernate, as the Rev. W. F. Clarke has recently taught, and respecting which he is undoubtedly original, although he will find I gave the outlines of hybernation in bees six years earlier." So here we have another claiming to be the "father" of the hybernation theory. Mr. N. W. McLain's experiments in wintering are detailed here, which were published in full by us at the time they appeared. In England the climate is so much more mild than with us that wintering in cellar is scarcely ever resorted to. The principal way of wintering is in chaff hives on summer stands, and this system of working is more thoroughly described. The principles governing successful wintering are, however, similar to those adopted by ourselves.

CHAP. XI.—DISEASES AND ENEMIES.

It has been supposed by a very great many people (many of them bee-keepers, too) that bees are unlike human beings in that they are never sick. Until a few years ago, when foul brood was sprung upon the bee kingdom, like potato-bugs upon *pommes de terre*, such a thing as disease was never thought of, unless we may except what some called the "nameless" disease. "This opinion," says Cheshire, "I have shown to be extremely wide of the truth. Sickly bees have neither pale cheeks nor sunken eyes, and therefore all were accounted equally healthy; but the use of the dissecting knife and microscope reveals the presence of not only contagious or zymotic diseases, but occasionally curious organic disorders." Unfavorable conditions in the colony—such as too low a temperature or a dearth of water—or a defect in the mother are the general causes for this state of things.

FOUL BROOD.

Principal among all of them, and the most fell disease of any of them, is foul brood, and in this connection we publish the following letter received a day or two since:

Editor Canadian Bee Journal, Beeton:

DEAR SIR,—Before closing your review of Frank Cheshire's book, I would suggest, if agreeable to you, that you give a sketch of his position on foul brood and its cure. Unfortunately there are a number of us interested in this matter.

As for myself, I imported it from Port-Elgin last year and am not quite through with it yet, evidently.

It would be interesting to know whether Mr. Cheshire has modified or made any advance on the ground he took four years ago when his method of cure was made public. I have cured colonies myself on his plan, though I was always afraid of a relapse, but cannot say that ever I have been justified in that fear.

Yours respectfully,

Galt.

R. W. McDONNELL.

We shall, therefore, in compliance with the above, give the Cheshire cure, as found at page 558, under the above chapter heading:

"Our third head now demands our attention. In what way can we most successfully, if at all, treat and eradicate this pest? Although ever an earnest advocate of curative measures, I am yet at the outset constrained to say that the disease is so sadly infectious that those who are by nature apathetic, or whose occupation will only permit half attention to their bees, may inflict grievous wrong upon their neighbors by attempting any cure, as this is likely to be done in a fitful, negligent fashion, keeping the disease languishing, while other stocks are, through it, being made victims. To such I advise, as the kindest course to self and others, the destruction by fire of the combs, and, possibly, even the frames and hives. If the bees are worth saving, make a swarm of them into a skep, and transfer forty-eight hours later into a frame hive. If there be much brood, the case not a very bad one, and the robbing season not at hand, unqueen, cutting out all royal cells eleven days later, and giving from a healthy stock a royal cell just sealed. When the queen hatches—by which time nearly all the worker brood will also have left their cells—make a swarm of them into a skep, and transfer on the second day into a frame hive. The queen will in seven or eight days begin to lay, and probably all will go well. The re-queening removes the possibly infected queen and gives in her place a healthy one, while the delay gives time for the diseased-bees to die off before they are required to act as nurses, which is the virtue of the so-called "Starvation cure." The honey in the diseased combs may be melted down, thinned.