

## FOUL BROOD.

### Its Symptoms, Treatment and Cure.

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Foul brood is a disease of the larva which originates from the rotting of uncared for brood, and is caused by brood being fed in corrupt cells, where the larva food is mixed with the remains of decayed brood. The larva that dies from foul brood, first turns yellow, as it decays further it becomes a brown, ropy matter that will stretch over an inch if a little of it is lifted from the cells. Some of the capped brood will have a small hole in the capping. More brood dies of foul brood at the age of six, seven, eight and nine days than at any other age. When the foul brood matter dries down, it leaves stain marks on both the lower side and bottom of the cells. Then without any cleansing the queen lays in these same stain marked cells, and during a honey flow without cleansing out the cells where foul brood dried down, the bees store honey in these stained marked cells, and seal many of them. Then the honey stored in the disease cells is fed to the sound brood. After that the colonies become very weak in bees, and the robbing sets in as soon as the honey season ceases. Then the bees from other colonies come and rob the foul brood colonies of their deadly stores, and carry the disease in proportion to the amount of diseased honey they convey to their hives.

It is eighteen years since I discovered that the honey was the *only criminal* that had to be fought in curing an apiary of foul brood. It has always been a great consideration of mine in curing apiaries of foul brood, to manage the business so as to leave every colony in the best possible condition for business when cured, to do this a great deal of judgment has to be used, and every apiary treated according to the condition it is found in. I have found some apiaries of twenty colonies in such a horrid state with foul brood, and every colony so weak in bees, that I ordered all the combs to be made into wax at once, and all the bees put into six or seven hives before stating to cure them of the disease. In other apiaries I have found more or less foul brood in every colony, with large quantities of sound brood. When I find an apiary in this condition, I make good use of the brood, and end the season with the full

number of colonies all cured and in good condition. I will now give my method of curing foul brood, which I believe will be followed by the bee-keepers of every land because it does not, and cannot fail, to cure the worst cases of the disease ever seen. In the honey season when the bees are gathering honey freely, go to the strongest of the diseased colonies in the evening, and remove the combs, and shake the bees back into their own hives, then give them comb foundation starters, and let them build combs for four days, to store the diseased honey in. In the evening of the fourth day remove the comb and give them foundation to work out, and then the cure will be complete. Fill empty hives with the foul brood combs that have been removed from the strongest of the diseased colonies and then place these hives on the weakest of the diseased colonies, and leave them there for a week or eight days, so that the sound brood hatching out during that time will strengthen the weak colonies. Then at the end of the week or eight days, remove all the combs and shake the bees into a single hive, then give them comb foundation starters, and let them build combs for four days to store the diseased honey in. In the evening of the fourth day remove the comb and give them foundation to work out, and then the cure will be complete. All work should be done in the evenings so the bees will become settled down nicely before morning. And if any curing is to be done when little or no honey is coming in, the bee-keepers must feed plenty of sugar syrup in the evenings to take the place of a honey flow. The Dr. Miller feeders are just the thing for this purpose. Beekeepers must never feed any honey from any foul brood colony without first boiling the honey. I always warn against the honey in all places. Before extracting from the diseased combs, all the combs that were not sealed must be cut off the frames or some of the decayed brood will be thrown out with the honey. All the foul combs and all the new combs that were built in the four days, must be made into wax, and the dross from the wax extractor must be buried, because what runs out with the wax from a steam wax extractor, would not be heated enough to kill the spores, and if it was thrown out where the bees would get at it, it would start the disease again. I will now warn beekeepers, that where an apiary is in a bad state with foul brood, that it cannot be cured by putting bees in empty hives during a honey flow, because the bees as such a time will build combs fast enough to store part of the diseased honey which they took from the foul combs when they were