

self, for he destroyed his hybridized colony, mistaking them for Italions. It is the spirit of the action. He not throw foul-brood into your bee yard! He'd do it every time. Fortunately this class is few. Without more, danger lurks around and to protect honest bee-masters, it was necessary to hedge them round and to say by law "hitherto shalt thou come but no further."

Though it be not our province in this paper to discuss fully the many exciting theories regarding foul brood or its origin, yet it appears quite necessary at this juncture to ask and answer the question, "what is foul brood?" From scientific and practical observations and researches the name *bacillus alveus* has been applied to the disease. The term means a hollow stick or hair, or in plural form sticks or hairs with or without a seed or berry on the end, which appear to be very rudimentary in foul brood. A good illustration of bacillus would be thistle down, dandelion seed, burdock seed, or beggar lice. When applied to foul brood, there appears to be but one stick or hair, but having the power of adhering to any and every thing. Hence the disease is very contagious. Those "wee," for they are so exceedingly small that thousands of them can adhere to the point of a cambric needle, seeds may be, and are conveyed in many ways. They adhere to anything, float in any congenial liquid and fly by means of the hollow hair or hairs, upon the "wings of the wind." These little seeds when dormant or ripe are partially carried out by the bees and distributed long distances by the wind on flowers, or at the entrance of other hives and thence carried by unwary workers to their homes, there to repeat its destruction. Some of the seed adheres to the walls of the cell and young larva born then die, or rather are eaten up. Bees manipulating this disease carry some of the sticks to other cells. So the contagion goes on. It can be and is carried in a hundred ways. The most prolific source of contagion being by honey, in which the sticks float with amazing ease.

The disease is highly malignant because it is "hostile to life," in fact, it is fatal. It is now an undisputed fact, that a larva attacked by this insect, seed, germ or whatever it may be, certainly dies, is eaten up, and converted into a thousand other animalcules, some say a billion, just as a farmer converts corn into beef and pork, grass into milk and butter or hay and feed into other animals. Let us magnify. Turn a pair of wolves into a sheep-fold. If left to "nature's course," they will eat up the sheep, reproduce themselves, go to the next fold and repeat, and so on. Death to the sheep, certain

death. The phenomenon is easy of solution. A similar process goes on with infinitesimally small foul broods. We simply see the results, death to larva bees.

We take strong grounds against the expressed views that there is incipient or mild type of foul brood. I expect to step on corned theories. If they hurt, kick. An incipient or mild type of wolf, lion, tiger, hawk, eagle, Canada thistle, hay cholera, small pox, etc! Surely the idea is ideal. We would like to see a sample. If you have a pair, so to speak, of foul brood, death is in the cell. You simply have a little, and if not irradiated, you very soon will have much.

One germ is as malignant as a million. It is only by the difference in numbers-quantity. The less the number or quantity the less slowly contagion goes on, the greater the number, the more rapid and violent the contagion. One seed or pair of seeds attack a larva. A very short time and millions are produced. One larva is eaten up, a thousand "seeds find a lodging place, and a thousand bees go the way of all living." Death of one, and death of a thousand that is all! It is malign! It is death, all the same!

In order to correct a few false ideas, which have a specific bearing upon the requirement of legislation, we will endeavor to make clear the origin of foul brood. Where is or was the beginning or origin of anything, either animal or vegetable? Foul brood certainly belongs to one of the great kingdoms of life. It is not a chemical process. In the beginning, etc., and again everything brought forth seed after its kind. It simply had its origin away back in the ages. It was, like every other living thing, created by a superior intelligence, and like every other living thing, it has been endowed with reproducing faculties. All that is needed is that the seed take root in some appropriate soil or congenial atmosphere. Decapitated drones, filthy hives, and such things have nothing to do with the matter. Why not rats, mice, vermin, etc., spring into existence in similar ways. Cut off the heads of bulls and rams and men will spring spontaneously into being. Fill the valleys with filth and look for noble herds to come forth. Nonsense! Put the seed into the ground and harvest will be sure; the male and female into the herd and the cattle upon a thousand hills appear, the seed germ, or whatever it is, male and female, into a clean, pure, white, sweet, young bee and millions of foul brood are born in a day. Foul brood beings do not like filth. They want just a living, juicy bee or similar food, and the work goes on.