

this spider. Dec. 30, 1863, the weather at Oxford, Ohio, was quite mild for a winter day, the mercury ranging at about  $42^{\circ}$ , the day being misty and threatening rain. At 5:30 p. m. my thermometer was  $42^{\circ}$ . The wind began to rise and at 6:30 p. m., the record was  $32^{\circ}$ ; 7:30 p. m.,  $22^{\circ}$ ; 10:30 p. m.,  $8^{\circ}$ . Jan. 1, 1864, 7 a. m.,  $16^{\circ}$  below zero, with a gale of wind. What soldier who camped out that day will ever forget it? In our apiary were many weak colonies wintered only because we could then sell every queen we could spare in the Spring for from \$10 to \$20. Nearly every one of these weak colonies was dead when I examined them after nearly two weeks of unusually cold weather. The hives with their empty combs were piled up against the north side of the barn, and that upon only enough to exclude mice. It was quite late in the spring before my health allowed me to give them any attention, and my son was absent in the army. But I was able to use every comb in my various operations. The spiders had taken possession of them, and the bee-moth had no chance. Had I closed the hives so tightly that the moth could not have got in them, I should in all probability have lost most of the empty combs. The odor of such hives attracts the moth, and if she cannot enter them, she will lay her eggs in the most convenient cracks and crevices for her progeny to get access to their proper food. It is much easier for a spider to entrap the moth, than it is for her to catch her larvæ when once they have burrowed into the combs? I prefer, therefore, to give the moth the freest possible admission, consistent with excluding mice, to all hives with empty combs.

Solomon says: "The spider taketh hold with her hands, and is in king's palaces." And she is very fond of making her hunting grounds in the combs of our queen's palaces when no longer under the protection of the bees! But we need trust nothing, even to her alacrity to volunteer in our service. In our barns and woodsheds can always be found in autumn and early spring a supply of those white bags in which the provident mother so nicely tucks up, as in the softest silken cradles, her eggs to be developed in due time by the increasing warmth of the season. Put a single one of these so-called "spider-bags" into each hive with empty combs, and be no more anxious about them—you have got "without money and without price" that vigilant fidelity so indispensable in this matter. The spider is now your very good friend. She mounts guard over your combs, and will protect them from the moth until the last one has found its proper place with your bees.

I regret that this information was not given long ago to the bee-keeping world. It was intended to appear years ago in the revision which I hoped to make of my work on the "Hive and Honey-Bee." I specially regret that I could not give it last spring, when it would have been of so much greater service. But it is only within a very short time that I have sufficiently recovered from my old head trouble to take any interest in bees, or to write on anything connected with them. With gratitude to our Heavenly Father, "who forgiveth all our iniquities, and healeth all our diseases," and with hearty good will to all bee-keepers at home and abroad, I sign myself their friend.

L. L. LANGSTROTH.

Oxford, Ohio, July 1, 1885.

N. B. — July 7th, 1885. — I have just taken from a loft over my woodshed some old combs of the kind that the moth loves, and that have lain there in an open nucleus box since 1874! They have not been molested, and the spider webs adhering to them tell in short the whole of this long story.

L. L. L.

Any one who has had the pleasure of meeting Rev. L. L. Langstroth, will be better able to see in the above some of his characteristics. That he has been a close observer of nature all his life is shown by his excellent book and his other writings. Many of the supposed new inventions of the present day can be found described in his valuable work, at least the principles upon which they are founded are fully anticipated.

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#### DRY FÆCES IN SUMMER.

ON three occasions within the last few weeks, I have found dry bee fæces on the leaves in the garden, adjacent to the hives, and on the garden fence. In some cases the voidings had been deposited in a semi-fluid shape and had spread, but I found numerous specimens of the long stringy bent kind, adhering to the leaves so slightly that the least shake was often sufficient to detach them. On two of these occasions I could only find the deposits in the line of flight between the hives and some broken combs of honey placed on the far side of a high board fence, to be cleaned up by the bees, and in the third case deposits were found on a fence just beyond which is a stream where the bees go to gather water. This is about twelve rods from the apiary. The con-