

by artificial heat meets with just as much opposition as successful wintering out-doors in single walled hives.

Brother Miller—our "stray straw Doctor" as he is familiarly dubbed by some—seems to favor artificial heat for successful wintering; but according to his own testimony, which none ought to doubt, his apiary dwindled, during the past winter, from over two hundred colonies down to one hundred and twenty-six. This tells hard against artificial heat wintering, especially as Marengo lies so much further south than many of his more successful brethren whose localities border on Lake Superior. Under our occasional very low temperature some of our fellow beekeepers of the north speak of very good success in their opposite practice.

Successful wintering of our bees therefore cannot depend wholly on artificial heat, dry cellars, clamps or beehives; but the all-important questions might rather be put to every beekeeper of the land—"How did I prepare my bees for winter? How did I begin with the preparations? What sort of winter stores had they to subsist on during their long confinement, and how much?" These questions if thoroughly answered, would most assuredly fill a six months' issue of any monthly or weekly Bee Journal.

No beekeeper can expect his bees to go into winter quarters and winter without loss if the quantity of honey left them is inferior or perhaps honey-dew; nor will his bees pull through all right if preparations are put off until too late in the fall. August and the first part of September is the period to prepare bees for their long winter confinement, and all later tinkering will only prove detrimental to any colony. The all-important necessity of securing each colony sufficient stores for winter must be considered, if a bountiful harvest is to be looked for in the coming season. The writer is sorry to confess that he lost two strong colonies this last fall from sheer neglect of these conditions.

Running my bees for extracted honey, I took off early in the season all upper storeys; but after the honey flow ceased,

forced the bees down to the lower storey. Some were hard to get down, and being in a hurry, did not lift up the hives, at least not all, to ascertain if any needed feeding, or a supply of full frames, and, to my surprise, when in a few days I came around to prepare for winter, I found two colonies dead, starved, as they had stored all their honey upward, and it being extracted the lesser quantity left in the lower storey had been consumed by late breeding. May both reader and writer be benefited by this lesson,

Bees prepared in conformity with proper answers to the above questions will winter safely in any frost proof dry repository, and even out of doors, with an outside winter case with a filling of sawdust or chaff between the walls.

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FOR THE CANADIAN BEE JOURNAL.
ON SECTIONS.

MR. EDITOR,—I believe we could have a better shaped section than the $4\frac{1}{2} \times 4\frac{1}{2}$. Most of the section cases hold 24, 28 and some 32. I think that is too much room to give an average colony of bees unless you have a lot of unfinished sections of the season before to give them (and I do not like to have that many to bother with) when you begin to tier up there is too much space in the bottom cases, so that the bees leave the outside sections in the upper case to come down in the lower. Four rows of $4\frac{1}{2} \times 4\frac{1}{2}$ sections take about 17 inches and a fraction, and that is the inside length of a good many section cases for the Langstroth hive manufactured by supply dealers. Now, I think a section $5\frac{1}{2}$ inches long by $3\frac{1}{2}$ in depth, has a good many advantages over the $4\frac{1}{2} \times 4\frac{1}{2}$. That size will give three rows in the cases instead of four, and the cases would hold eighteen, twenty-one or twenty-four, instead of twenty-four, twenty-eight or thirty-two, and just about the same amount of comb honey as the $4\frac{1}{2} \times 4\frac{1}{2}$ with the same width as the latter, generally seven to the foot, or as the beekeeper fancies.