

remain permanently, but let me tell you, friends, that bees suffer from the heat in permanent packed hives, more especially if not in the shade of a tree, and then again, I consider it more beneficial when re-packed every fall.

Some of the properties of the wintering case in question are these:

It can be tilted from the back and allow the bottom board to be cleared off in spring. This part of the idea was copied from Mr. Wm. McEvoy. When visiting at his place three years ago, it amused me to see Mac raise his wintering case from the front and sweep out the dead bees, etc. The only trouble that I noticed was that the packing was disturbed, but in the coming case that trouble is overcome.

I have copied, too, from our lamented friend, the late E. W. Alexander, in that there is a feeder at the rear of the stand which can be used whether the hive is packed for winter or not. The only difference from Mr. Alexander's is that it slides to and from the hive, and by this means the hive can be ventilated in hot weather and not admit much light.

Part of the back of the case is removable to accommodate manipulation.

There are tin slides in front for contracting or enlarging the entrance, leaving the entrance at the hive full width of the hive all the time.

The bottom board just comes flush or barely so with front of case. It was my intention to extend the bottom board one-half to two inches, and hinge to it an extended alighting board, which was to fold up to protect the bees from storms in winter and shade from light in early spring; but found it could not be done and began reasoning in my own mind whether an extended bottom board is of any advantage or not; thinking of the bees in their natural homes in the woods getting along without an extension to alight on, and believing that bees will alight easier on themselves on a perpen-

dicular surface than on a horizontal plane. To prove this, place a shingle at the entrance of a good colony, slanting up to the bottom board, heavy end resting on the earth, and you will hear heavily laden bees alighting at a distance of three or four feet. Does it not stand to reason that it will be easier on them alighting on a perpendicular surface when we consider that they are assuming almost a plumb attitude just as alighting? On these considerations, I made the case without an extension in front, but the space from the bottom board to the earth is filled with a board the width of the depth of the space and the length of the width of the hive; tack to one side of this two pieces of leather near each end, which also want to be tacked to the front of the bottom board, acting as hinges, to allow this little board to be folded up over the entrance, and yet is held off by those leathers or hinges far enough for ventilation and to allow the bees egress and ingress in emergencies (such as a warm day coming and the bee-keeper absent) and yet protects the interior of the hive from snow and winds and keeps it fairly dark as the entrance is indirect.

I find that leather will answer better for hinges than iron, as the latter is too slippery for the bees when new, and after a while will rust and refuse to work.

Now, I don't try to claim that this case will have any particular virtue in wintering; all that I claim for it is that it has about all the requirements considered necessary in a wintering case.

There has been no patent applied for nor will there be, but I don't wish bee-keepers to be writing me privately about it. If cuts of the different parts could be given in the C. B. J., if not too much expense on friend Hurley, I would write it up for the readers of this paper or describe it to some manufacturing firm who could make them and from whom samples could be bought. It will, no

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