

that position is exactly in the centre of the frame. The whole work may be performed in one-tenth of the time that it takes to wire a frame, and so far as we can see yet, is equally as good for all ordinary purposes.

CLIPPING QUEEN'S WINGS.

We are asked by Mr. S. Corneil, of Lindsay, Ont., to describe the best method of clipping queen's wings, and here is the way we do it: If we remember aright it was Prof. Cook who told us how to do it; however, the method is not original. Catching the queen by the wings with the thumb and first finger of the right hand, and holding the thumb and first finger of the left hand together, allowing the queen to crawl over the points of the fingers. As soon as her feet are between the thumb and finger, close them slightly, thus holding her by the legs. Her body will remain almost motionless while she is trying to withdraw her legs; in this position her wings may be clipped with a pair of sharp pointed scissors. We always carry a pair for the purpose. We do not believe in cutting the wing too square and leaving only a stump. By passing the scissors down lengthwise and clipping the inside and thinner part of the wing off, and leaving the outside it does not disfigure the queen and is quite as effectual.

This will also be an answer to R. H. Smith, of Ealing, who asks "what is the best time and what the best and safest mode of clipping a queen's wing?"

FOR THE CANADIAN BEE JOURNAL. HONEY BOARDS.

REFERRING to your "Own Apiary" page 245, where you illustrate a queen-excluding honey-board of combined wood and metal surface, I will say that we are experimenting on an extensive scale with these boards. The idea of metal strips being let into grooves in the sides of our honey-board slats, having originated with at least four different persons, a year or more ago. I may name Dr. G. L. Tinker, who wrote about it not long since, C. E. Boyer, my foreman, W. Z. Hutchinson and myself, neither being aware of the other's device and all giving it to the public. Here we are using it as follows: We make our wood slats the same width and thickness as ever, leaving the spaces between them the same three-eighths inch, and slide in metal strips having one row of openings only and these strips we get made to order, with their edges all smooth and whole, and I cannot see how smooth edges are secured by cutting strips containing "two rows" of openings, any more than strip of only one row, which leaves the jagged edges, which work just as well in the boards, but are more trouble to insert. My experience and observation with bees, fully convinces me that one row of openings over

the centre of each top bar, below will give far more than ample passage room for the strongest colonies. I will tell you why I object to using metal strips wide enough to contain two rows of openings; it necessitates, as in friend Hall's case, five-eighths space between the slats. Now, if the bee-space is right between the surfaces of the slats and the surfaces above and below them, of course it is about one-eighth of an inch larger between the surfaces of this metal and the surfaces above and below it. I think we would be more apt to be troubled with brace combs where we used two rows of openings, than where we used one, as I have it. I am not sure but quarter inch between the slats would be better than our three-eighths. I can tell at the close of this season. I have used brood-frames with top-bars three-eighths inch thick, and varying in width from thirteen-sixteenths, up to one and one-eighth inch, and I have found brace combs built between their edges to a greater extent in proportion as the bars were wider and the spaces narrower; but this kind of bracing is between the edges of the bars, and not between their surfaces and other surfaces above and below them. In testing some thirty all-wood queen-excluding honey-boards, made so by widening our quarter inch slats till the spaces between them were the same as metal openings, in width, we were astonished to find that the bees built comb in these spaces till two-thirds of the passage way was stopped. We tried them two seasons, realizing this and other disastrous results, and have discarded them entirely.

HEDDON'S HONEY BOARD.

"What is it?" I receive many questions like this. Will you kindly let me reply to many at once. An implement, machine or manufacture, may take its name from him who constructed, devised or invented it. A device may, or may not be an invention, and it is a question as to whether placing these strips of metal in grooves in the slots, can be called an invention or not, but whether it is or is not, it is certainly a device and preferable to nailing it on to one side as before. My honey-board contains two important features each of which performs very useful functions, and which I invented some eight or ten years ago. First. Arranging slats within a frame or rim, in such manner that one of their surfaces shall be even with one surface of the rim, while their other surface shall be bee-space lower than the other surface of said rim. This gives us a honey-board containing a bee-space within itself. The rim gives it solidity. When the slats are made as thin as quarter inch, as we make them. Second. Arranging slats, forming a honey-board, in such manner that the centre of each slat shall run parallel with, and