



Queen Raising with the Horizontal Frame Support

In the July 2011 issue of **Bee Culture**, I gave plans for the **Horizontal Frame Support**. I also mentioned the Hopkins System or Case Method that used the vertical positioning of a frame of cells to entice the bees to build queen cells. Since that time I have received calls that requested a detailed write-up of how to use the HFS to raise your own queens. The opportunity presented itself last week when one of my hives went queen-less. Why? How? Who knows what happened? All I know is that there were no eggs, no queen, a few larvae and a good supply of bees. So why not let them raise a batch of queens.

The Hopkins System or Case Method – Developed by a Mr. I. Hopkins in the early 1900's.

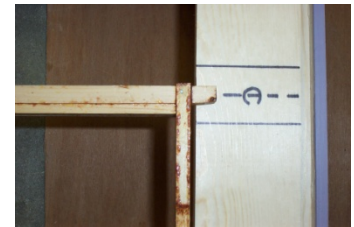
This system is the placement of a frame with eggs or young larvae from a breeder colony above a queen-less colony. The frame is laid on its side (horizontal) and is positioned on top of the brood nest in a queen-less cell builder colony. The queen-less colony will feed the cells on the bottom side of the horizontal frame and create queen cells from them. The trick is to provide eggs and larvae of the correct age so quality queens will be reared.

Building the Frame Support

Creation of the Horizontal Frame Support requires a minimal amount of work. The hardest part is ensuring that the support is square so it will fit on a hive with no gaps. If you use a 1"x4"x6' board, you will only have to make minimal cut.

Step #1 – Cut the sides and ends of the Horizontal Frame Support. They should match the hive boxes you are using. See the attached drawing for the standard Langstroth dimensions. If you are butt joining the corners then you should have two side pieces $\frac{3}{4}$ " x 3 $\frac{1}{2}$ " x 19 $\frac{7}{8}$ " long and two end piece $\frac{3}{4}$ " x 3 $\frac{1}{2}$ " x 14 $\frac{5}{8}$ " long.

Step #2 – Lay out the 14 $\frac{5}{8}$ " long end pieces with a brood frame that you are going to use with the Horizontal Frame Support. The brood frame should be situated so the cells will be in the center of the support. See the attached drawing for a general placement. Mark the center of the ears or tabs of the frame. Then place a mark $\frac{3}{4}$ " on each side of the center mark. This marks the size of wide groove that will be cut in the end pieces so the frame can lay down in the support. Also mark the location of the bottom bar of the brood frame. This is the minimum length needed to ensure the bottom of the frame does not slip off the brood frame support.

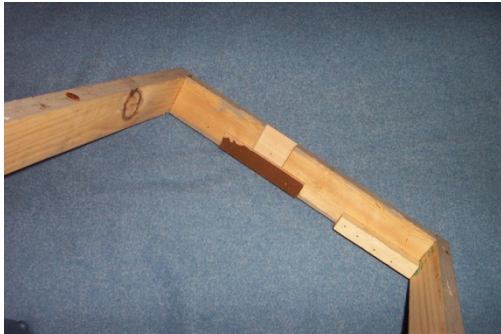


Step #3 – Notch the end pieces to allow the ears or tabs of the frame to fit in. Make the notch $\frac{3}{8}$ " deep and $\frac{1}{2}$ " wide (cut on the marks you made in the step #2). This is notch "C" in the drawing. The $\frac{1}{2}$ " width of the notch allows you to adjust the position of the brood frame for the best fit when you are placing it on top of the existing frames.

Step #4– Cut 2 pieces of wood $\frac{3}{4}$ "x1"x6" to use as guide/supports for the bottom of the brood frame (Parts "A" in the drawing).



Step #5 – Glue and nail the pieces cut in step #5 to the end pieces of the Horizontal Frame Support. Remember the ends are mirror images of each other so place the pieces in the correct place.



Step #6– Cut 2 pieces of plywood 1/4"x1"x6" to use as supports for the ears of the brood frame (Parts "B" in the drawing).

Step #7 – Glue and nail the pieces cut in step #6 to the Horizontal Frame Support. The ears of the brood frame will rest on these pieces. Span the grooves ("C") cut in step #3. Remember the ends are mirror images of each other so place the pieces in the correct

place. Make sure the top of this piece supports the frame in a level of position.

Step #8 – Assemble the support the same way you would assemble a standard hive box. Be careful to make sure the Horizontal Frame Support is square. I'd recommend using screws at the corners rather than nails since the support is only 3 1/2" tall and can easily be forced into a non-square position

Figure 1 – Ear & bottom Supports



Figure 3 – Frame in position

Step #9 – Paint the Frame Support with the paint you rescued from the recycling center and you are ready to raise hundreds and hundreds of queens.

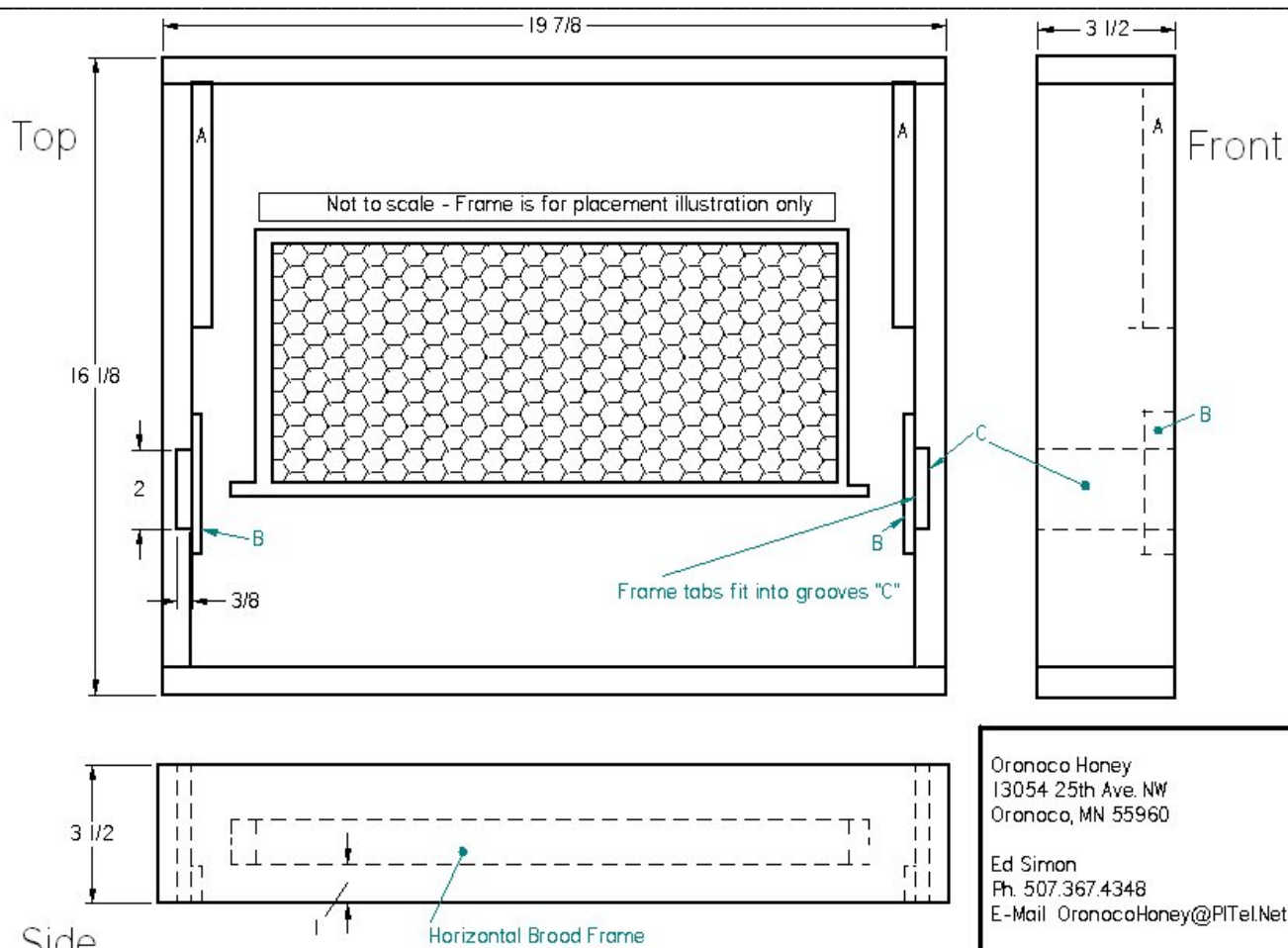
Conclusion

Considering the ease of construction, the Hopkins Method and the Horizontal Frame Support in conjunction with a Cloake Board should be a viable alternative for small bee keepers who want to raise queens with minimal disruption of a productive colony.



Additional Thoughts

How many times have you wanted to feed a hive with an existing frame of honey? You certainly didn't want to disrupt them since they were expanding nicely. Consider using the Horizontal Frame Support. It will allow you to lay a frame of pollen or honey on top of an existing colony without breaking the ears off of the frame. It can then be removed very easily when the bees have emptied the frame.



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