Making an Open Mesh Floor

The starting point for me was to source the mesh for the floor, I wanted something that would last and be resilient to the weather and cleaning using a blow torch. The ideal material for me was stainless steel. After some research on the internet I purchased a sheet (1250 x 2500) from a manufacturer in the midlands. The company is Metal Mesh Ltd, http://www.metal-mesh.co.uk and the product code is 08-86SF (316). If you do not relish the idea of cutting the sheet up into the sizes you want they will cut it for you. The alternative is to purchase single pre-cut pieces from one of the bee equipment suppliers.

The wood used for the majority of my projects is donated from local skips, typically it is treated construction timber from all the extensions and loft conversions so ideal for my use, I then cut it down to size with a table saw.

The plans for my floors include a landing board as I do not build one into my hive stands.

No fancy woodwork here, the construction is basically the mesh sandwiched between two wooden frames.

All measurements are imperial as I have old fashioned English bees rather than continental ones!

Materials

Steel mesh $18^{1}/_{8}$“ square

2 pieces of 1 inch square timber $17^{1}/_{8}$“ long

1 piece of 1 inch square timber $18^{1}/_{8}$“ long

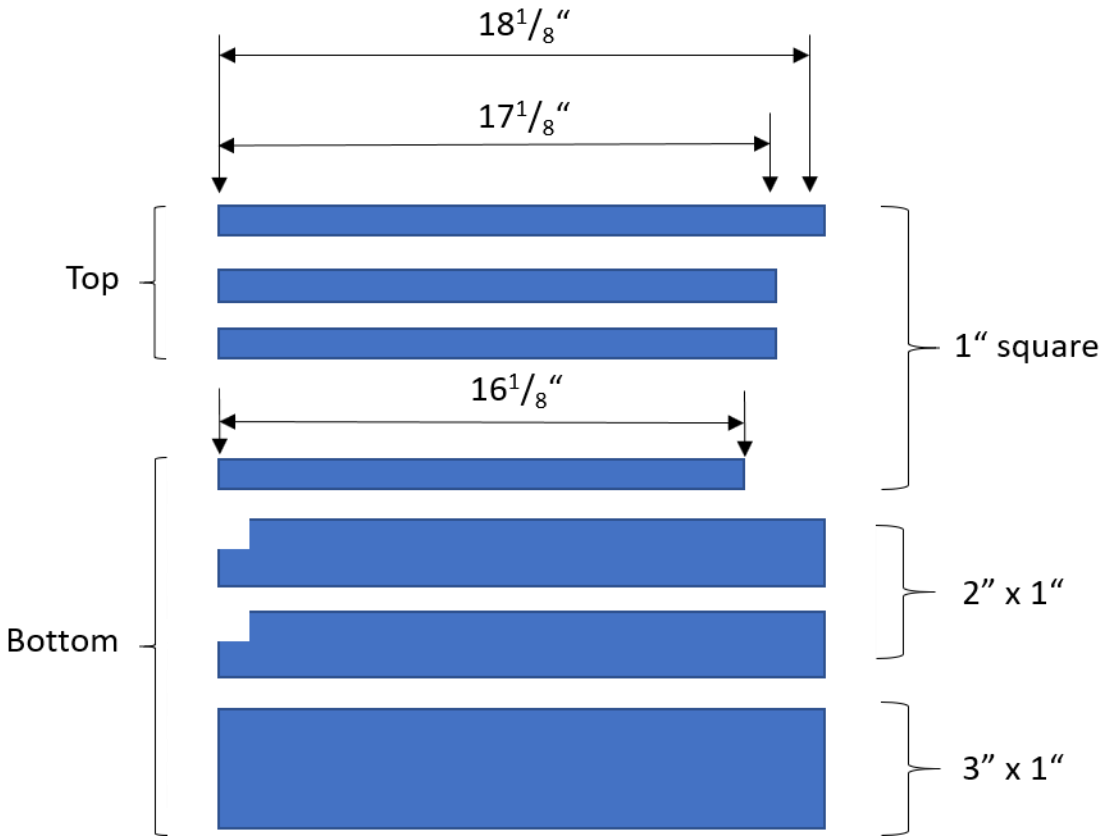
1 piece of 1 inch square timber $16^{1}/_{8}$“ long

2 pieces of 2 x 1 inch timber $18^{1}/_{8}$“ long

1 piece of 3 x 1 inch timber $18^{1}/_{8}$“ long (this is for the landing board, it will protrude by 2” from the front, if you want a wider landing board then use wider timber)

2 metal runners for the varroa board, I use an unequal U-shaped channel from my local builder’s merchant, used for dry lining systems. http://www.builderdepot.co.uk/3000mm-gl8-track.html

Thin ply sheet for varroa board, $16^{1}/_{8}$“ x $17^{1}/_{8}$“



Method

Dimensions are approximate and will need to be adjusted if you use a different size of timber. The external dimensions of the floor are $18^1/_8$“ square to match up with the brood box.

1. Cut out the 1” notches in the two pieces of 2 x 1
2. Screw and glue the 3 x 1 landing board into the notches with the $16^1/_8$“ underneath it
3. Screw and glue the three remaining pieces with the two $17^1/_8$“pieces and $18^1/_8$“ to form another U shape
4. Sandwich the mesh between the two U shapes with the open ends of the U in opposite directions as shown.
5. Use staples to fasten the mesh to the top of the landing board and to the underside of the top.
6. Cut two lengths of channel and fasten underneath the mesh on the inside of the 2 x 1 as runners for the varroa board.
7. Finally insert two nails, screws or staples as stops behind the entrance so the entrance block does not go in too far.

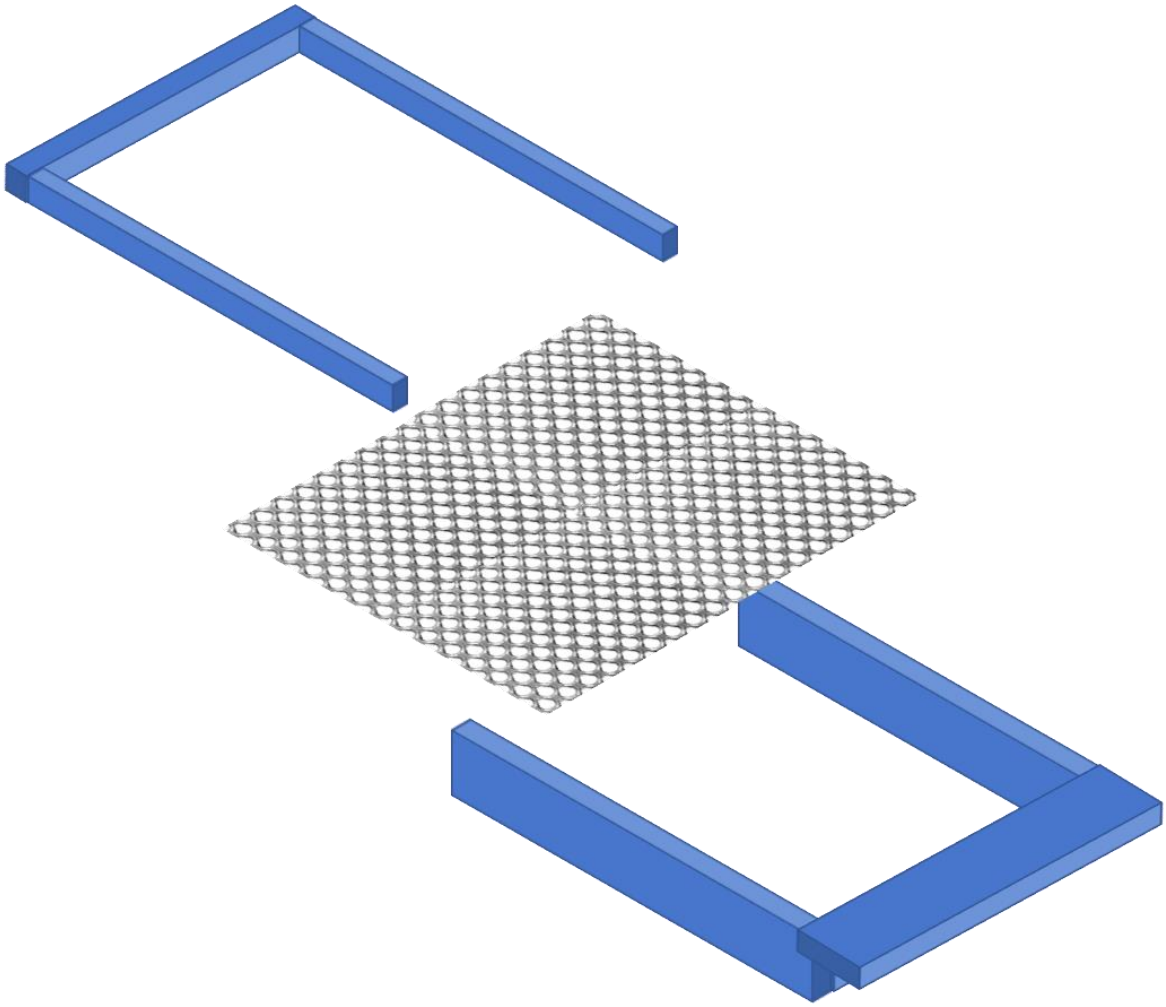


Figure 1 - Main Components

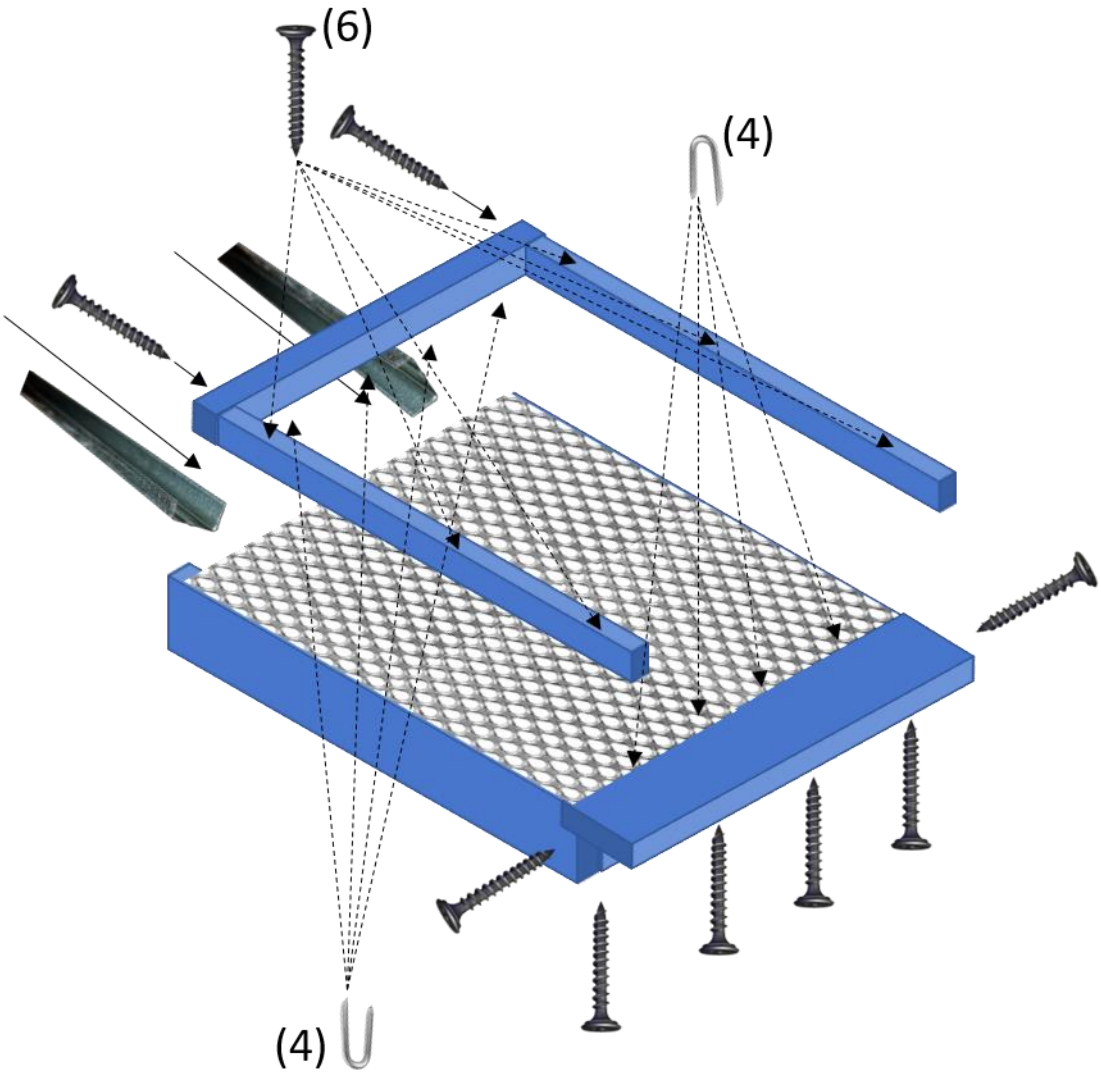


Figure 2 - Assembly