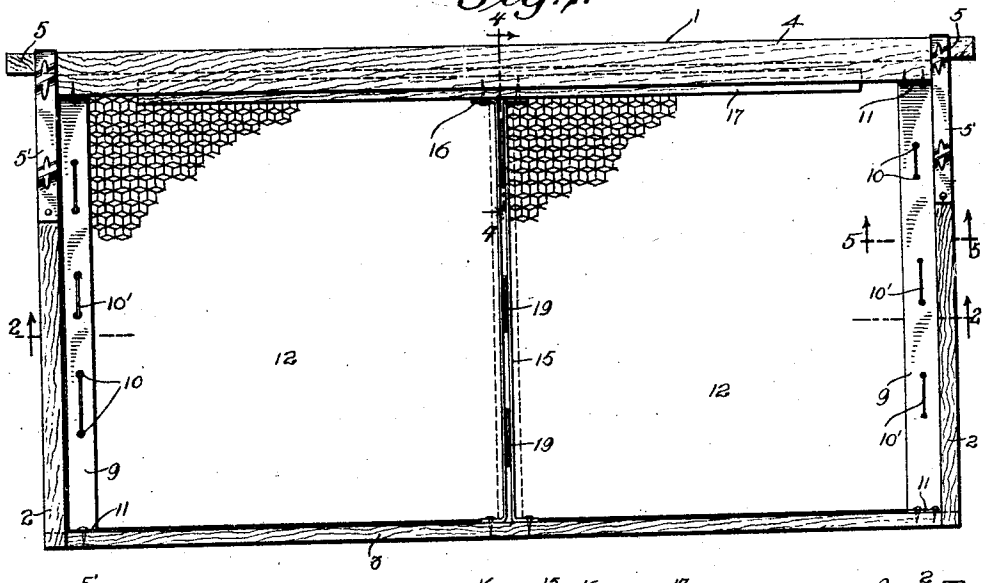
H. C. HARTMAN.

HONEYCOMB FRAME.

APPLICATION FILED FEB. 18, 1921.

1,411,094. Patented Mar. 28, 1922.

Fig. 1.



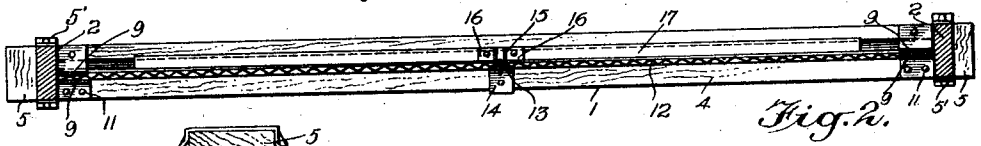


Fig. 2.

Fig. 3.

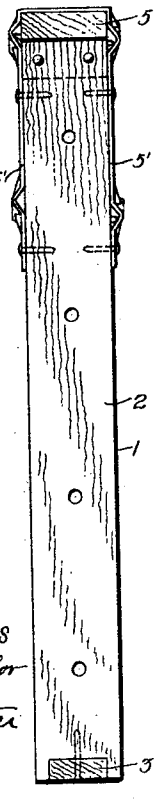


Fig. 4.

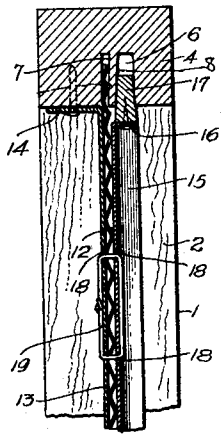
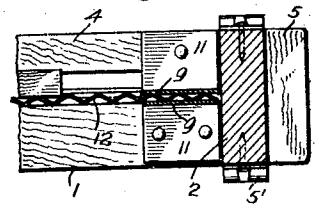


Fig. 5.



WITNESSES

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HARRY C. HARTMAN, OF BRADDYVILLE, IOWA.

HONEYCOMB FRAME.

1,411,094. Specification of Letters Patent. Patented Mar. 28, 1922.

Application filed February 18, 1921. Serial No. 446,094.

To all whom it may concern:

Be it known that I, HARRY C. HARTMAN, a citizen of the United States, and a resident of Braddyville, in the county of Page and State of Iowa, have invented a new and Improved Honeycomb Frame, of which the following is a full, clear, and exact description.

This invention relates to improvements in honeycomb frames, an object of the invention being to provide improved means for holding the foundation web firmly in place within the frame so that it will not sag or sway from the weight of the bees thereupon.

A further object is to provide a frame which will be simple and practical in construction, strong and durable in use, and which will efficiently perform the functions for which it is intended.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings—

Figure 1 is a view in side elevation of my improved frame;

Fig. 2 is a view in section therethrough on the line 2—2 of Fig. 1;

Fig. 3 is an edge view thereof;

Fig. 4 is an enlarged fragmentary view in transverse section on the line 4—4 of Fig. 1;

Fig. 5 is an enlarged fragmentary view in section on the line 5—5 of Fig. 1.

1 represents a frame of the conventional rectangular form, the side members 2 of the frame being bifurcated at their lower ends to receive the reduced ends of the bottom frame member 3. The ends of the upper frame member 4 extend beyond the side members as indicated at 5, forming handles to facilitate the manipulation of the frame. Any desired form and number of strengthening bands, such as 5′, may be employed to strengthen the frame.

The under face of the top frame member 4 is provided with a pair of parallel longitudinal grooves 6 and 7, respectively, a thin partition 8 being left between the grooves.

A pair of clamping strips, such as 9, are located within each end of the frame, one edge of each strip abutting against the inner face of the adjacent side frame member 2. The strips 9 are located at right angles to the plane of the side members 2 and are provided with registering perforations 10. The upper and lower ends of the strips 9 are turned outwardly and secured to the upper and lower frame sections, respectively, as indicated at 11, each pair of these strips serving to confine one end of a sheet of foundation web 12 between them. To securely hold the web in place between the clamping strips, wire, such as 10′, may be threaded through the registering perforations 10 in the strips 9, so that the ends of the web are sewed between the strips.

A centrally disposed vertical strip of metal 13, connects the top and bottom frame sections, the ends of the strip 13 being bent outwardly and secured to the frame sections as indicated at 14. Co-operating with the strip 13, is a channel strip 15 substantially U-shaped in cross-section. This strip is provided with integral lugs or extensions 16 at its upper and lower ends, the lower end of the strip being secured to the lower frame member and the upper end thereof being secured to the central portion of a wedge-shaped bar 17 fitting within the groove 6 and serving to tightly clamp the upper end of the foundation sheet or web 12 in the groove 7.

The strip 15 is positioned with its intermediate portion adjacent the strip 13, and the intermediate portion of the strip 15 and the strip 13 are provided with registering perforations 18. Wire 19 threaded through these perforations serves to sew the central portion of the foundation web between the two strips 13 and 15.

In assembling the device, the upper edge of the foundation web is first introduced into the groove 7. The strip 13 is already in place in the frame, and after the edge of the web is inserted in the groove 7, the strip 15 is secured in place and the wedge 17 is inserted in the groove 6, bending the partition 8 and clamping the upper edge of the web in place. The wire 19 is then applied to the central portion of the web between the strips 13 and 15. The clamping strips 9 are positioned in place in the frame and sewed together in the manner described and the frame is ready for use.

By virtue of the above-described construction, it will be seen that the upper edge, the side edges and the intermediate portion of the web are firmly secured within the frame

so that there is no danger of the web sagging or swaying from the weight of the bees thereupon.

While I have illustrated one of the preferred embodiments of my invention, it will be apparent that various slight changes and alterations might be made in the general form and arrangement of the parts described without departing from my invention, and hence I do not wish to limit myself to the precise details set forth but shall consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. A rectangular honey frame having a pair of grooves in the inner face of one side thereof, a foundation web having one edge located in one groove, a wedge shaped bar inserted in the other groove to clamp said web in place, pairs of flat strips extending transversely across each end of the frame on opposite sides of the web, flexible securing devices passed through said strips and web to secure the ends of the web between the strips.

2. A rectangular honey frame having a pair of grooves in the inner face of one side thereof, a foundation web having one edge located in one groove, a wedge shaped bar inserted in the other groove to clamp said web in place, pairs of flat strips extending transversely across each end of the frame on opposite sides of the web, flexible securing devices passed through said strips and web to secure the ends of the web between the strips, a second pair of strips extending transversely across the intermediate portion of the frame on opposite sides of the web, one of said strips being flat and connected to opposite sides of the frame, the other of said strips being channeled and having its intermediate portion lying against the web, said last mentioned strip anchored at one end to the frame and at its other edge to the wedge shaped bar.

3. A rectangular honey frame having a pair of grooves in the inner face of one side thereof, a foundation web having one edge located in one groove, a wedge shaped bar inserted in the other groove to clamp said web in place, pairs of flat strips extending transversely across each end of the frame on opposite sides of the web, flexible securing devices passed through said strips and web to secure the ends of the web between the strips, a second pair of strips extending transversely across the intermediate portion of the frame on opposite sides of the web, one of said strips being flat and connected to opposite sides of the frame, the other of said strips being channeled and having its intermediate portion lying against the web, said last mentioned strip anchored at one end to the frame and at its other edge to the wedge shaped bar, said last mentioned strips having aligned openings therein, flexible securing devices passed through the openings and the web to hold the intermediate portion of said web against sagging.

HARRY C. HARTMAN.