K. HAWKINS.

BEEHIVE FRAME WIRING DEVICE.

APPLICATION FILED MAR. 29, 1920.

1,373,131. Patented Mar. 29, 1921.

Fig. 1.

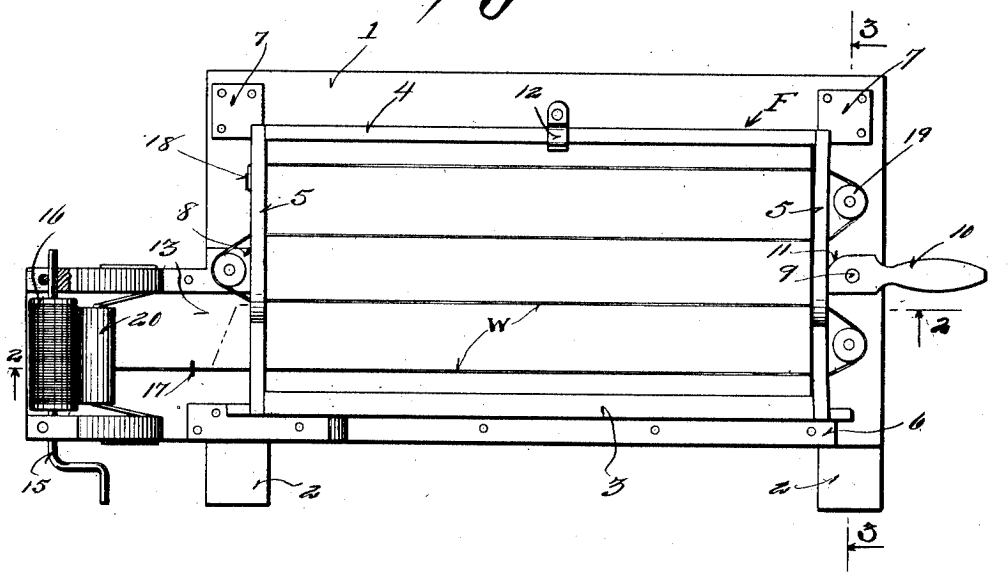


Fig. 2.

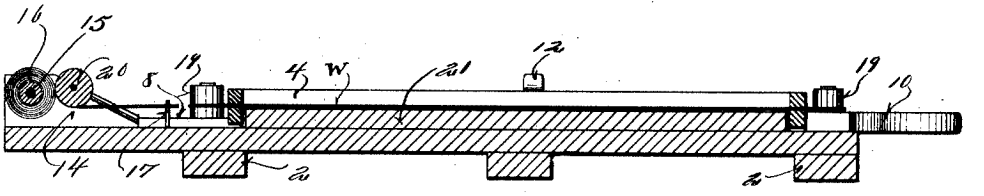
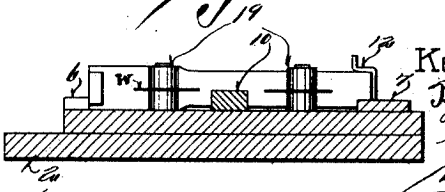


Fig. 3.



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UNITED STATES PATENT OFFICE.

KENNITH HAWKINS, OF WATERTOWN, WISCONSIN, ASSIGNOR TO G. B. LEWIS COMPANY, OF WATERTOWN, WISCONSIN.

BEEHIVE-FRAME-WIRING DEVICE.

1,373,131. Specification of Letters Patent. Patented Mar. 29, 1921.

Application filed March 29, 1920. Serial No. 369,530.

To all whom it may concern:

Be it known that I, KENNITH HAWKINS, a citizen of the United States, and resident of Watertown, in the county of Jefferson and State of Wisconsin, have invented certain new and useful Improvements in Beehive-Frame-Wiring Devices; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to improvements for stringing wires or the like across frames, and is more particularly adapted for wiring bee hive brood frames.

Brood frames of bee hives usually carry a comb foundation held therein by means of a plurality of wires which connect the opposite ends of the frames. As such frames are at present constructed, there is a tendency of the wires and the brood combs to sag with the result that there is less room in the hive with the consequent decrease in honey production and an increase in swarming. It is therefore the principal object of this invention to provide an arrangement whereby the supporting wires of brood frames may be tensioned to such an extent that a possibility of sagging is obviated.

An additional object of the invention is to provide means in connection with the wiring device whereby a bee comb foundation may be secured on the wires of a frame without removing the latter from the wiring device.

With these and other objects in view the invention consists in the novel features of construction, combination and arrangement of parts which will be hereinafter more particularly described and claimed and shown in the accompanying drawing, wherein:

Figure 1 represents a plan view of a frame wiring device constructed in accordance with my invention and having a frame disposed thereon and shown in the process of being wired.

Fig. 2 is a longitudinal sectional view taken on the plane of the line 2—2 of Fig. 1, and

Fig. 3 is a transverse sectional view on the plane of the line 3—3 of Fig. 1.

In the illustrated embodiment of the invention, the reference character 1 denotes a substantially rectangular base having attaching portions 2 for securing the same to a suitable support, and means for seating a rectangular brood frame F while the same is being wired. This frame consists of a relatively rigid top bar 3, a flexible bottom bar 4 and similar end bars 5, such a frame being suspended in a bee hive by means of the top bar 3 and the projecting ends thereof.

When in position on the base 1, the frame F has its top bar 3 engaged throughout its length with a strip 6, its bottom corners being in contact with corner stops 7, and one end bar 5 with an intermediate end stop 8. At the opposite end of the base 1 from the stop 8 and substantially alined therewith is a pivot 9 on which is mounted a cam lever 10, the cam 11 of which is adapted to be engaged with one end bar 5 when the lever is rotated in the proper direction. During the engagement of the cam 11 with one end bar of the frame F, both of the end bars 5 are bowed inwardly toward each other and are held in this position until the frame is wired. At the same time the bottom bar 4 is bowed inwardly by means of a hinged clip 12 pivoted to the base 1 and swung into engagement with the intermediate portions of the bottom bar 4 when the frame F is being operated upon.

At the same end of the base 1 of the device as the intermediate end stop 8 is an extension 13 which carries a pair of bearings 14 having a shaft 15 of a wire carrying reel 16 mounted therein. The wire W of this reel is adapted to form strands connecting the end bars 5 of the frame, and in applying the same is first threaded through an eye 17 on the extension 13 and then extended through coöperating apertures in the end bars 5 adjacent the top bar 3. Both of these end bars 5 are provided with a series of such wire receiving apertures from adjacent the top bar 3 to adjacent the lower or bottom bar 4, the free end of the wire being secured to one of the end bars adjacent the said bottom bar as at 18.

It will be noticed that these portions of wire W which are located exteriorly of the frame F are disposed around rollers 19 carried by the base 1. The base also has mounted thereon a guide and tension roller 20 which engages the reel 16 and the portion of the wire W there adjacent. After the part of the wire from the reel which is to form strands connecting the end bars 5 of the frame is arranged as shown in Fig.

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