

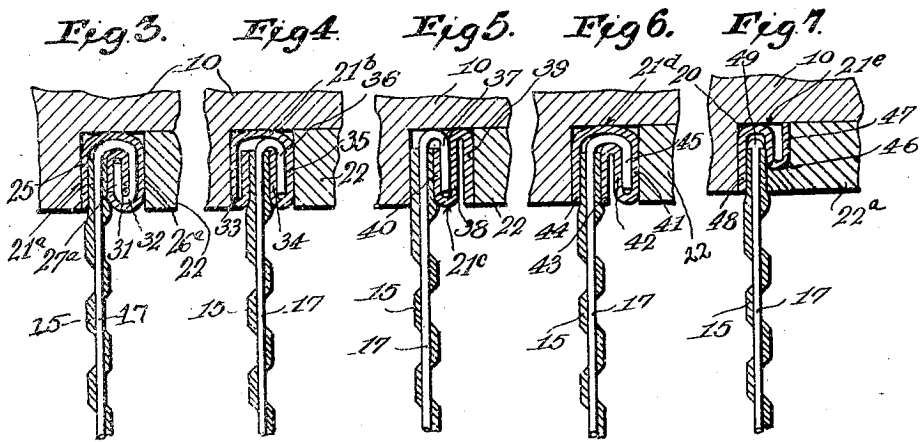
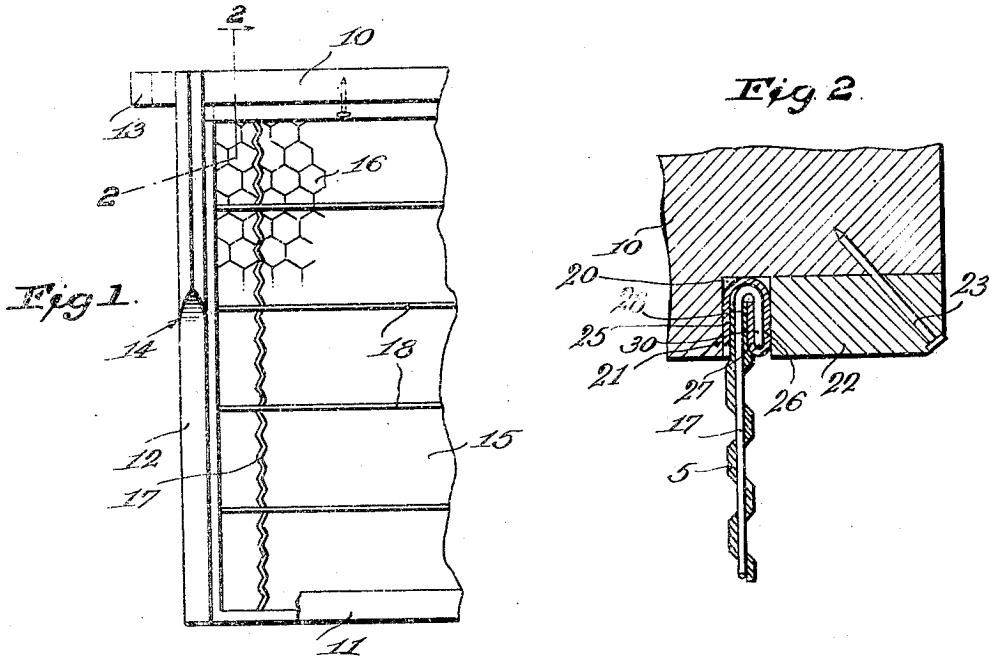
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2,325,043

BEE COMB FOUNDATION

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## UNITED STATES PATENT OFFICE

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BEE COMB FOUNDATION

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2 Claims. (Cl. 6-10)

This invention relates to bee comb foundations, and is more particularly directed to the type described and claimed in our copending application Serial No. 316,424, filed Jan. 30, 1940, of which the present application is a continuation in part.

An object of the invention is the provision of a bee comb foundation in which a binding or anchoring bar is clamped upon an edge of the wax sheet so that when the wax sheet is applied to the usual frame or a modified form of the frame the securing means for the sheet will be directed against the anchoring means.

A further object of the invention is the provision of a U-shaped anchoring bar which is adapted to be bent around one or more edges of the wax sheet with reinforcing wires for the sheet projecting beyond the edge and being bent to conform to the curvature of an auxiliary flange on the anchoring bar.

This invention will be best understood from a consideration of the following detailed description, in view of the accompanying drawing forming a part of the specification, nevertheless, it is to be understood that the invention is not confined to the disclosure, being susceptible of such changes and modifications as define no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:

Figure 1 is a fragmentary view in elevation of a frame and a wax sheet applied thereto.

Figure 2 is a vertical section taken along the line 2-2 of Fig. 1.

Figures 3 to 7 inclusive are vertical sections similar to the one shown in Fig. 2 showing modified forms of the anchoring bar disclosed in Fig. 2.

Referring now particularly to the drawing 10 designates a top bar and 11 a bottom bar. Side bars 12, one of which only is shown, are connected to the ends of the top and bottom bars. The top bar is provided with an extension 13 at each end which provides a means for supporting the frame generally designated by the numeral 14 in the hive in the usual manner.

A sheet of wax 15 is secured at its opposite edges along the top and bottom to the top and bottom bars 10 and 11. This sheet is provided with the usual pockets 16 formed of regular polygons from which the bees build their cells.

Transverse wires 17 may be straight or corrugated and these wires are embedded in the wax sheet. Longitudinal wires 18 are also embedded in the sheet and these wires may be straight or corrugated.

While the top and bottom edges of the wax sheet are shown as secured in the frame 14 along two edges only, nevertheless all four edges of the sheet may be secured within the adjacent bars of the frame.

The top bar 10 is provided with a rabbet 20 to receive a binding or anchoring bar generally designated by the numeral 21 and a strip of material 22 which is secured in place by a plurality of nails 23 which are driven through the strips 22 and then into the bar 10.

The anchoring bars are U-shaped and provided with a pair of spaced flanges 25 and 26 with an auxiliary flange 27 extending inwardly and then upwardly from the lower edge of the flange 26. The flanges 25 and 27 are in close contact with the wax 28 at opposite sides of the transverse wires 17. In other words the anchoring bar is pinched onto the upper edge of the sheet 15 so that the flanges 25 and 27 firmly grip the upper edge of the sheet.

When the bar 22 is secured in place it is forced up tight against the flange 26 and when the nail 23 is driven in diagonally as shown in Fig. 2 the bar 22 presses firmly against the flange 26 for retaining the upper edge of the sheet in position in the bar 10.

As has been stated, all edges of the sheet may be provided with the anchoring bar 21 and secured in position in substantially the same manner as shown in Fig. 2.

The ends of the wires 17 are bent in U-shaped formation as shown at 30 and the free inturned end of the wire is received between the flanges 26 and 27. By this construction there is no danger of the anchoring bar becoming dislodged from the edge of the sheet.

In Fig. 3 is shown a modified form of the anchoring bar at 21<sup>a</sup>. This anchoring bar is U-shaped in formation and consists of a pair of spaced flanges 25 and 26<sup>a</sup>. The flange 26<sup>a</sup> is extended inwardly as shown at 27<sup>a</sup> to provide a second U-shaped formation. The free end of this flange, however, is turned downwardly at 31.

The wire 17 follows the curvature of the flanges 26<sup>a</sup>, 27<sup>a</sup> and 31, as shown at 32, so that the free ends of the wire 17 are interlocked with the anchoring bar 21<sup>a</sup>. A strip 22 is secured in place by a nail as illustrated in Fig. 2. The inner edge of the strip is forced against the flange 26<sup>a</sup> and therefore frictionally holds the flange and likewise the connected edge of the wax sheet 15 in the frame.

In Fig. 4 both edges of a U-shaped member 21<sup>b</sup> are inturned as shown at 33 and 34 and are

forced into engagement with the opposite faces of the wax sheet 15. The flange 34 is spaced sufficiently from a flange 35 of the U-shaped member to receive the intumed end 36 of the wire 17. In all of the previous forms and the following forms as shown in Figs. 5 to 7 inclusive a number of transverse wires 17 are located in spaced relation within the sheet. In Fig. 5 the U-shaped member 21<sup>c</sup> receives the bent ends 37 of the wires 17 which are embedded in the sheet 15. One flange 38 of the U-shaped member is turned outwardly and then downwardly as shown at 39 and strip 22 when nailed in place has one edge forced against the flange 39. In this case only one flange 40 of the U-shaped member is in engagement with one face of the wax sheet 15.

Fig. 6 shows a further modified form of a U-shaped member designated by the numeral 21<sup>d</sup>. In this case one flange 41 of the U-shaped member is bent inwardly as shown at 42 and then outwardly as indicated at 43. The flange 43 and flange 44 of the U-shaped member are in engagement with the opposite faces of the wax sheet 15. The ends of the wires 17 are bent in U-shaped formation and the free end 45 is received between the flanges 41 and 42, after it has been bent over the bight of the connected flanges 42 and 43.

The strip 22 when secured in place by the usual nail as shown in Fig. 2, has one face forced into frictional contact with the flange 41 whereby the U-shaped member 21<sup>d</sup> and the connected edge of the sheet 15 are secured in place.

Referring more particularly to Fig. 7 it will be seen that the U-shaped member 21<sup>e</sup> has one flange 46 turned outwardly and upwardly as indicated by the numeral 47. The inner faces of the flanges 46 and 48 are compressed into flat engagement with the opposite faces of the wax sheet 15. The flanges 46 and 47 are of less length than flange 48.

The ends of the wires 17 in this case are provided with heads 49 which are located within the bight portion of the U-shaped member 21<sup>e</sup>.

An attaching strip 22<sup>a</sup> is secured in place by means of nails and since these nails are driven through the strip on a bias as shown in Fig. 2, the inner face of the strip is forced into frictional contact with the flange 47, thereby securing the anchoring bar or the U-shaped member 21<sup>b</sup> in place.

Instead of the attaching bars 22, which are substantially rectangular in cross section and which

are employed in Figs. 2 to 6 inclusive, the attaching bar 22<sup>a</sup> may be used, as shown in Fig. 7. In this case, the bar 22<sup>a</sup> is rabbeted to receive the fore-shortened member 46, so that the said bar will aid in retaining the anchoring bar 21<sup>b</sup> in place in the frame.

In all of the forms it will be seen that two flanges of the U-shaped member or an extension of the flange are in engagement with the inner face of the rabbeted section 20 of the bar 10 and the inner face of the securing strip 22. Due to the fact that in all of the forms one of the flanges or an extension of the flange is spaced from an element of the U-shaped member, said U-shaped member or anchoring bar may be partially compressed when the strip 22 is positioned for frictionally holding the anchoring bar and likewise the connected end of the sheet in position.

The upper ends of the flanges 27, 28, in Fig. 2, when pressed against the opposite faces of the wax sheet 15, form in effect a restricted portion of the U-shaped member 21 and thus provide shoulders within the U-shaped member below the heads 38 on each of the wires 17.

**We claim:**

1. In a honey comb foundation supporting means, a frame having at least one bar provided with a rabbet, a wax sheet having a wire embedded therein and supported by the frame, said wire having a lateral bend at one end, and an anchoring bar clamped upon said wire end and around its lateral bend, taking the position of the bend and thus simulating a hook, said anchoring bar being seated within the rabbet and an attaching bar disposed in the rabbet and secured to the frame bar with one edge frictionally pressed against one side of the anchoring bar.

2. In a honey comb foundation supporting means, a frame having at least one bar thereof provided with a rabbet, a wax sheet having a wire embedded therein and supported by the frame, a U-shaped anchoring bar clamped upon one edge of the sheet and on one end of the wire and disposed within the rabbet, one flange of the bar having an extension bent back upon the flange in spaced relation, and an attaching bar located in the rabbet and secured to the frame bar with one edge pressed against a flange of the anchoring bar.

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