

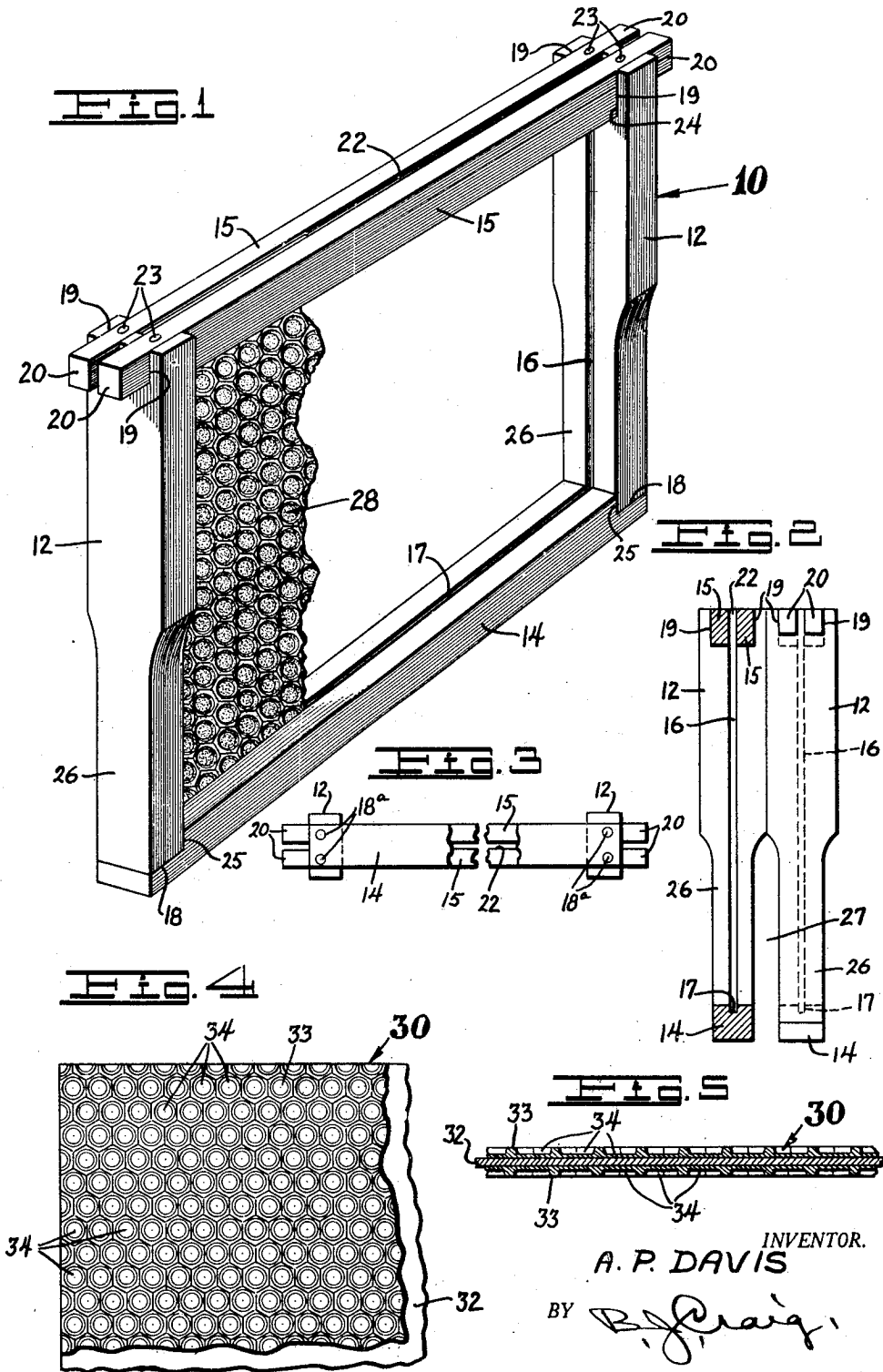
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BEE COMB FRAME CONSTRUCTION

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BEE-COMB-FRAME CONSTRUCTION

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This invention relates to improvements in bee hives.

The general object of this invention is to provide an improved bee comb frame.

5 A specific object of the invention is to provide a bee comb frame wherein the comb is inserted in the frame from the top and is supported in grooves in the frame on all sides.

10 A further object of the invention is to provide a bee comb frame wherein the various parts which make up the frame may be fabricated and readily assembled quickly and economically with but few operations into a rigid and durable frame.

15 Another object of the invention is to provide a novel bee comb foundation which will not warp and which is strong and durable and may be used over and over again a great many times.

20 Other objects and the advantages of this invention will be apparent from the following description taken in connection with the accompanying drawing wherein:

25 Fig. 1 is a perspective view of my improved bee comb frame showing a fragment of a bee comb operatively positioned therein.

30 Fig. 2 is a view on a reduced scale of a plurality of my improved frames arranged side by side as they would be in a hive and shows an end elevation of one of the frames and a cross section of another of the frames.

Fig. 3 is a bottom plan view of the frame on a reduced scale.

35 Fig. 4 is an elevation of one side of my improved bee comb foundation, and Fig. 5 is an enlarged section through my improved bee comb foundation.

40 Referring to the drawings by reference characters I have indicated my improved bee comb frame generally at 10. As shown, this frame comprises end members 12 connected by a bottom member 14 and top bars 15. The end members 12 are each provided on one face with a groove 16 and the bottom member 14 is provided with a groove 17.

45 The bottom member 14 is notched at each end as at 18, and the end members 12 are adapted to be positioned in the notches 18 and secured to the bottom member by nails or other suitable fastening means as indicated

at 18^a in Fig. 3. When the end members 12 are operatively positioned on the bottom member 14 the grooves 16 of the end members register with the groove 17 in the bottom member as shown.

55 The end members 12 are each provided with a pair of spaced slots 19 adjacent their upper ends in which reduced ends 20 of the top bars 15 are positioned. The top bars 15 when operatively positioned on the end members 12 are spaced apart and form a slot 22 therebetween which registers with the grooves 16 in the end members 12, as clearly shown. The top bars 15 are secured to the end members 12 by nails or other suitable fastening means as indicated at 23.

60 When the top bars 15 are secured to the end members 12 the shoulder 24 formed at the juncture of the reduced ends 20 and the main body portion of the bars engages a portion of the inner face of the end members 12 and a portion of the inner face of the end members engage the shoulders 25 formed by the notches 18 in the bottom members 14 thereby making the frame 10 very rigid.

65 The reduced ends 20 of the top bars 15 extend beyond the outer face of the end members 12 to provide supports for the frame 10 when it is positioned in a bee hive and the lower portion of the end members 12 is reduced as indicated at 26 so that when a plurality of the frames 10 are positioned side by side in a bee hive a passageway 27 is formed between the frames as shown in Fig. 2.

70 When it is desired to position a comb base or foundation as indicated at 28 in my improved frames 10 it is only necessary to insert the bottom of the comb in the slot 22 and move it into the frame, whereupon the ends of the comb automatically position themselves in the grooves 16 of the end members and when the comb is fully inserted in the frame the bottom of the comb is positioned in the groove 17 of the bottom member 14. The frame containing a comb is then ready to be positioned in a bee hive.

75 With my improved frame it is not necessary to disassemble any of the elements of the frame to position a comb therein, and it is not necessary to provide any other means such

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as wires as are now generally employed to maintain the comb in the frame, thereby saving much time and labor.

In Figs. 4 and 5 I have indicated an improved bee comb generally at 30 which I prefer to use in connection with my improved bee comb frame 10, but which may also be used with other types of bee comb frames.

As shown this bee comb base or foundation comprises a body portion or foundation 32 made of a relatively stiff material such as cardboard having a layer of beeswax 33 adhering or secured to each side. This wax is indented to form the comb shapes as indicated at 34.

Owing to the stiff foundation 32 the bee comb foundation 30 will not sag or warp when it becomes warm and it may be used over and over again a great many times.

From the foregoing description it will be apparent that I have provided an improved bee comb frame which is simple in construction, rigid and durable and one wherein much time and labor is saved when inserting a bee comb base or foundation therein, and furthermore that I have provided a novel bee comb foundation which is simple in construction, durable and economical in use.

Having thus described my invention, I claim:

1. In a bee comb frame, spaced end members, a bottom member, said bottom member being notched adjacent each end and said end members being positioned in said notches, means to secure said end members to said bottom member, said end members each being provided with a slot adjacent its upper end, top bars, the ends of said top bars being positioned in said slots of said end members, a shoulder on each end of the top bars at the juncture of said top bars and the end members.

2. In a bee comb frame, spaced end members, a bottom member, means including a rabbeted joint to secure said end members to said bottom member, said end members each being provided with spaced slots adjacent their upper ends, top bars, means to secure said top bars to said end members, a groove on the inner face of each of said end members and a groove on the inner face of said bottom member, said end member grooves and said bottom member groove being in register.

3. In a bee comb frame, spaced end members, a bottom member, means to secure said end members to said bottom member, top parts spaced apart to provide a slot, means to secure said top parts to said end members, a groove on the inner face of each of said end members and a groove on the inner face of said bottom member, said end member grooves and said bottom member groove being in register and said end member grooves being in register with said slot formed in said top.

4. In a bee comb frame, spaced end members, a bottom member, means to secure said end members to said bottom member, a pair of top bars, said top bars being spaced apart and forming a slot therebetween, means to secure said top bars to said end members, a groove on the inner face of each of said end members and a groove on the inner face of said bottom member, said end member grooves and said bottom member groove being in register and said end member grooves being in register with said slot formed between said top bars.

5. In a bee comb frame, spaced ends members, a bottom member, means to secure said end members to said bottom member, said end members each being provided with spaced slots adjacent their upper ends, a pair of top bars, reduced ends on said top bars, said top bars being spaced apart and forming a slot therebetween, means to secure said top bars to said end members, said reduced ends of said top bars projecting beyond the outer faces of said end members to form supports, a groove on the inner face of each of said end members and a groove on the inner face of said bottom member, said end member grooves and said bottom member groove being in register and said end member grooves being in register with said slot formed between said top bars.

6. In a bee comb frame, spaced end members, a bottom member, said bottom member being notched adjacent each end and said end members being positioned in said notches, means to secure said end members to said bottom member, said end members each being provided with spaced slots adjacent their upper ends, a top member, reduced ends on said top member forming shoulders, said reduced ends being positioned in said slots of said end members, the shoulder at the juncture of said reduced portion of said top member and the main portion of said top member engaging the inner faces of said end members, means to secure said top member to said end members, said reduced ends of said top member projecting beyond the outer face of said end members to form supports.

7. In a bee comb frame, spaced end members, a bottom member, said bottom member being notched adjacent each end and said end members being positioned in said notches, means to secure said end members to said bottom member, said end members each being provided with spaced slots adjacent its upper ends, a pair of top bars, reduced ends on said top bars forming shoulders, said top bar reduced ends being positioned in said slots of said end members, said top bars being spaced apart and forming a slot therebetween, the shoulder at the juncture of said reduced portion of said top bars and the main portion of said top bars engaging the inner faces of said end members, means to secure

as wires as are now generally employed to maintain the comb in the frame, thereby saving much time and labor.

In Figs. 4 and 5 I have indicated an improved bee comb generally at 30 which I prefer to use in connection with my improved bee comb frame 10, but which may also be used with other types of bee comb frames.

As shown this bee comb base or foundation comprises a body portion or foundation 32 made of a relatively stiff material such as cardboard having a layer of beeswax 33 adhering or secured to each side. This wax is indented to form the comb shapes as indicated at 34.

Owing to the stiff foundation 32 the bee comb foundation 30 will not sag or warp when it becomes warm and it may be used over and over again a great many times.

From the foregoing description it will be apparent that I have provided an improved bee comb frame which is simple in construction, rigid and durable and one wherein much time and labor is saved when inserting a bee comb base or foundation therein, and furthermore that I have provided a novel bee comb foundation which is simple in construction, durable and economical in use.

Having thus described my invention, I claim:

1. In a bee comb frame, spaced end members, a bottom member, said bottom member being notched adjacent each end and said end members being positioned in said notches, means to secure said end members to said bottom member, said end members each being provided with a slot adjacent its upper end, top bars, the ends of said top bars being positioned in said slots of said end members, a shoulder on each end of the top bars at the juncture of said top bars and the end members.

2. In a bee comb frame, spaced end members, a bottom member, means including a rabbeted joint to secure said end members to said bottom member, said end members each being provided with spaced slots adjacent their upper ends, top bars, means to secure said top bars to said end members, a groove on the inner face of each of said end members and a groove on the inner face of said bottom member, said end member grooves and said bottom member groove being in register.

3. In a bee comb frame, spaced end members, a bottom member, means to secure said end members to said bottom member, top parts spaced apart to provide a slot, means to secure said top parts to said end members, a groove on the inner face of each of said end members and a groove on the inner face of said bottom member, said end member grooves and said bottom member groove being in register and said end member grooves being in register with said slot formed in said top.

4. In a bee comb frame, spaced end members, a bottom member, means to secure said end members to said bottom member, a pair of top bars, said top bars being spaced apart and forming a slot therebetween, means to secure said top bars to said end members, a groove on the inner face of each of said end members and a groove on the inner face of said bottom member, said end member grooves and said bottom member groove being in register and said end member grooves being in register with said slot formed between said top bars.

5. In a bee comb frame, spaced ends members, a bottom member, means to secure said end members to said bottom member, said end members each being provided with spaced slots adjacent their upper ends, a pair of top bars, reduced ends on said top bars, said top bars being spaced apart and forming a slot therebetween, means to secure said top bars to said end members, said reduced ends of said top bars projecting beyond the outer faces of said end members to form supports, a groove on the inner face of each of said end members and a groove on the inner face of said bottom member, said end member grooves and said bottom member groove being in register and said end member grooves being in register with said slot formed between said top bars.

6. In a bee comb frame, spaced end members, a bottom member, said bottom member being notched adjacent each end and said end members being positioned in said notches, means to secure said end members to said bottom member, said end members each being provided with spaced slots adjacent their upper ends, a top member, reduced ends on said top member forming shoulders, said reduced ends being positioned in said slots of said end members, the shoulder at the juncture of said reduced portion of said top member and the main portion of said top member engaging the inner faces of said end members, means to secure said top member to said end members, said reduced ends of said top member projecting beyond the outer face of said end members to form supports.

7. In a bee comb frame, spaced end members, a bottom member, said bottom member being notched adjacent each end and said end members being positioned in said notches, means to secure said end members to said bottom member, said end members each being provided with spaced slots adjacent its upper ends, a pair of top bars, reduced ends on said top bars forming shoulders, said top bar reduced ends being positioned in said slots of said end members, said top bars being spaced apart and forming a slot therebetween, the shoulder at the juncture of said reduced portion of said top bars and the main portion of said top bars engaging the inner faces of said end members, means to secure