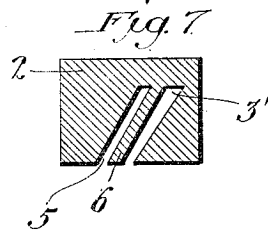
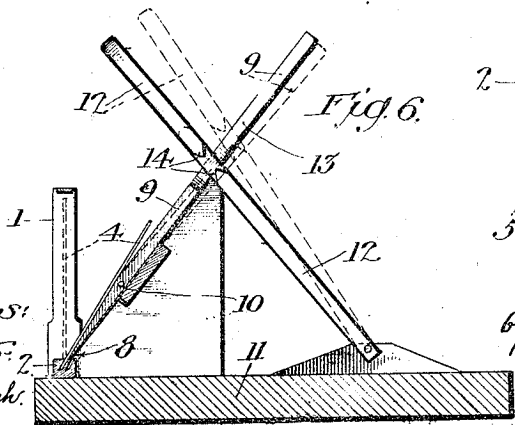
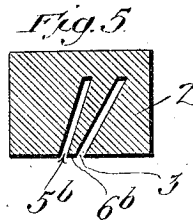
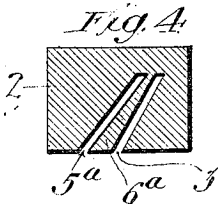
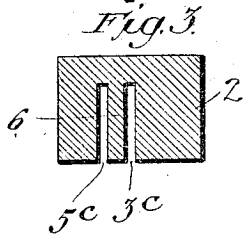
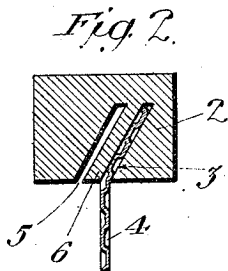
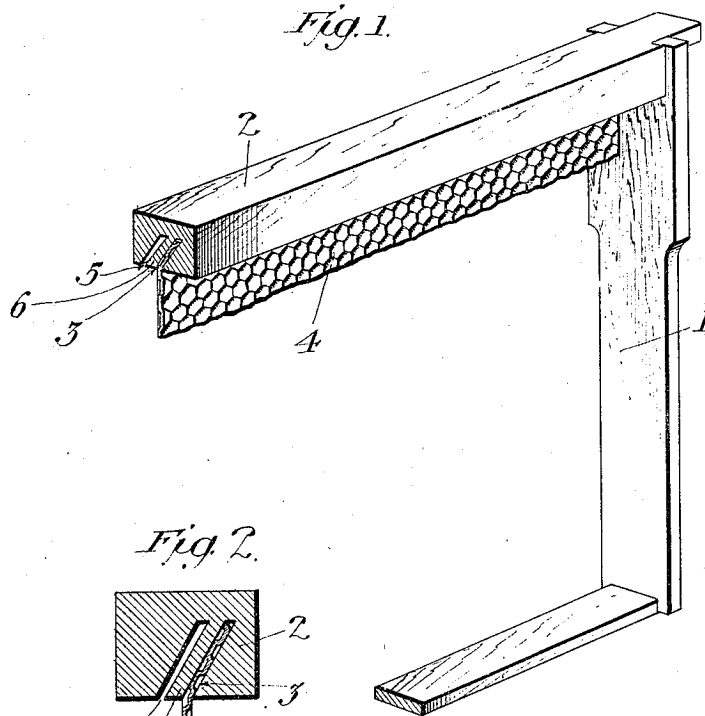


1,014,171.

Patented Jan. 9, 1912.



Witnesses:
 J. D. Thornburgh.

Inventor:
 Henry Perkins.
 Edward Haussacker
 atty.

UNITED STATES PATENT OFFICE.

HENRY PERKINS, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF TO H. J. MERCER, OF LOS ANGELES, CALIFORNIA.

HONEY-FRAME.

1.014,171.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed January 28, 1911. Serial No. 605,283.

To all whom it may concern:

Be it known that I, HENRY PERKINS, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Honey-Frames, of which the following is a specification.

This invention relates to a top bar for honey frames provided with means for clamping or holding the comb-foundation therein, and the main object of the invention is to provide a top bar for this purpose which will be simple in construction and effective in operation.

A further object of the invention is to provide a top bar for the stated purpose which is formed of a single piece.

Other objects of the invention will appear hereinafter.

The accompanying drawings illustrate the invention, and referring thereto: Figure 1 is a perspective of a portion of a honey frame, showing the section of foundation secured in the top bar. Fig. 2 is a transverse section through the top bar with a portion of the comb-foundation held therein. Figs. 3, 4 and 5 are transverse sections, showing modified forms of the top bar. Fig. 6 is a vertical section of a portion of the honey frame, together with means for temporarily operating upon the top bar to facilitate introduction of the foundation thereinto. Fig. 7 is a vertical section of another modified form of the top bar.

Referring to Fig. 1, the honey frame, indicated at 1, is provided with a top bar 2 along the underside of which extends a groove 3 adapted to receive the comb-foundation 4, said groove being of such width as to pinch and firmly hold the foundation. The frame 1 and bar 2 are formed of wood, their general form being the same as generally adapted for this purpose. In order to enable this groove to be temporarily expanded, so as to provide for the introduction of the comb-foundation thereinto, another groove 5 is formed in the top bar 2 extending alongside of the groove 3, so that the intervening web or tongue 6 is flexible and elastic. In the form shown in Figs. 1 and 2, this supplementary groove 5 is parallel to the main groove 3, so that the tongue or portion 6 of wood extending between these grooves is of uniform thickness from top to bottom. If desired, however, the in-

clination of the grooves may be variant, as shown in Fig. 4, where the main groove 3 and supplementary groove 5^a converge upwardly, so that the web or tongue 6^a extending between the grooves is downwardly flaring, or, as shown in Fig. 5, the supplementary groove, indicated at 5^b may diverge upwardly from the main groove 3, so that the intervening web or tongue 6^b is downwardly tapering.

I prefer to form the main groove 3 at an acute angle to the bottom face of the top strip 2, that is to say at an angle of inclination to the vertical direction, as shown in Figs. 1 and 2, so that when the comb-foundation 4 is secured in said groove, it will be bent slightly at the point where it leaves the groove, thereby clenching the foundation in place. As shown in Fig. 3, however, the main groove 3^c and the supplementary groove 5^c may extend vertically in the top bar and, in this case, the comb-foundation is held only by direct pressure or by frictional contact of the walls of the main groove 3^c.

To enable insertion of the comb-foundation in the top bar, the slot 3 thereof is temporarily stretched or expanded by any suitable means, as by means of a blade, indicated at 8 in Fig. 6, said blade being carried by an operating member 9 pivoted at 10 on a frame 11, and a handle member 12, also pivoted on said frame, working in a slot 13 in said operating member 9 and being provided with shoulders 14 engaging with said operating member, so that by moving said handle 12 on its pivot, the operating member 9 is tipped on the pivot 10 thereof. The top bar 2 is placed on the frame 11 in inverted position with the face of its tongue 6 directly beneath the lower end of the blade 8; the handle 12 is then depressed causing a shoulder 14 thereon to engage the operating member 9 and depress the lower end of said operating member and the blade 8 thereon, so that the said blade 8 presses the tongue 6 away from the slot 3 and opens or expands said slot. The comb-foundation 4 is placed on the upper face of the operating member 9, which under these conditions is parallel with the foundation-receiving groove 3 and the said groove being expanded, as above stated, the foundation is slipped thereinto. On then raising the handle 12 to position shown in

dotted lines in Fig. 6, the blade 8 at the lower end thereof is moved forwardly and upwardly, causing the foundation to be bent back to or past the vertical position sufficiently to enable it to hang vertically when the frame is placed in upright position. It will be understood, however, that any other means or method may be used for expanding the foundation-receiving slot or groove to enable the foundation to be inserted therein. On separating the honey frame from the operating means described, the resiliency of the wood causes the flexible or elastic tongue member 2 to press tightly against the portion of the comb-foundation within the slot 3 and to hold the same firmly in place. When the honey frame is then supported in the usual manner, the comb-foundation will be suspended from the top bar and be retained by frictional engagement of the walls of the slot 3 with the upper edge portion of said comb-foundation. The bending of the comb-foundation at the lower end of the slot 3, in the case where the said slot extends obliquely, is of advantage in that it gives a clench support to the comb-foundation in addition to the frictional support.

In any of the above described forms of the invention the foundation receiving groove may be made wider at its inner or upper end, as indicated at 3' in Fig. 7, the construction being otherwise as above described. This provides for a tighter pinching action.

What I claim is:

1. In combination with a comb foundation, a honey frame provided with a wooden top bar having two longitudinal grooves with an intervening elastic tongue, one of said grooves receiving and tightly fitting the upper portion of the foundation and the other of said grooves extending parallel to the first named groove and being open to allow the tongue between said grooves to press upon the foundation by reason of

its own elasticity with sufficient pressure to retain the foundation in place.

2. In combination with a comb foundation, a honey frame provided with a wooden top bar having two longitudinal grooves therein with an intervening elastic tongue, both of said grooves extending obliquely upward from the bottom of the top bar, one of said grooves receiving and tightly fitting the upper portion of the comb foundation, and the other of said grooves being open to permit the elastic tongue formed between said grooves to bear upon the comb by reason of its own elasticity with sufficient pressure to retain the foundation in place.

3. A wooden top bar for honey frames provided with two longitudinal grooves with an intervening elastic tongue, one of said grooves being constructed and adapted to receive and tightly fit the comb foundation, and said elastic tongue being constructed and adapted to press resiliently on the comb when it is inserted in said comb receiving groove with sufficient pressure to retain the foundation in place.

4. A wooden top bar for honey frames provided with two longitudinal grooves with an intervening elastic tongue, one of said grooves being constructed and adapted to receive and tightly fit the comb foundation, and said elastic tongue being constructed and adapted to press resiliently on the comb when it is inserted in said comb receiving groove, said grooves extending obliquely upward from the bottom of the top bar to cause the comb to be bent where it leaves the groove and to give a clench hold thereon.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 19th day of January, 1911.

HENRY PERKINS.

In presence of—

ARTHUR P. KNIGHT,
FRANK L. A. GRAHAM.