May 15, 1928. 1,669,641

H. A. ZEITLER

DEVICE FOR LIFTING COMB FRAMES USED IN BEEHIVES

Filed June 13, 1927

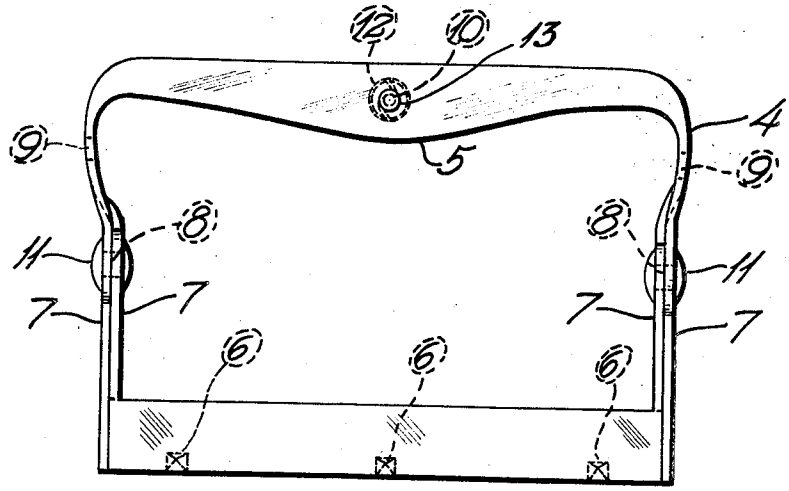


Fig. 1.

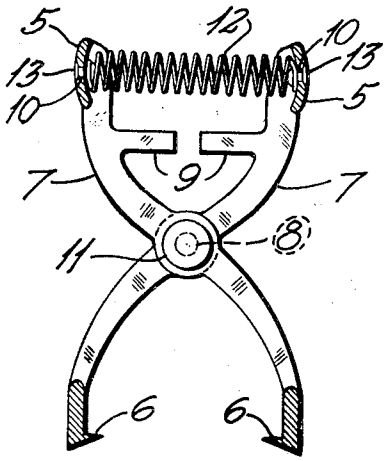


Fig. 3.

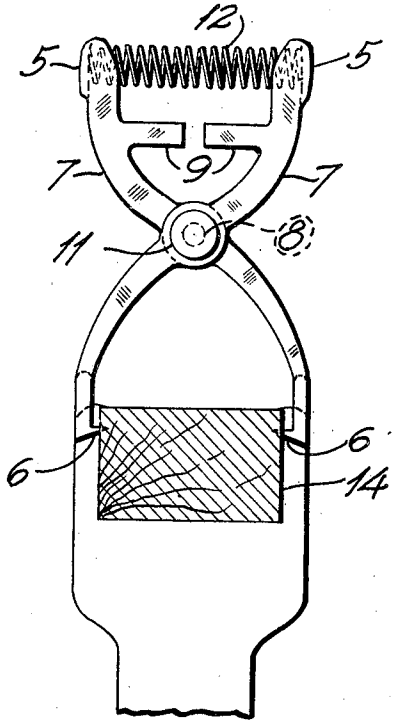


Fig. 2.

Inventor

Hugo A. Zeitler

By Adam E. Fisher

Attorney

Patented May 15, 1928. 1,669,641

UNITED STATES PATENT OFFICE.

HUGO A. ZEITLER, OF LUXEMBURG, WISCONSIN.

DEVICE FOR LIFTING COMB FRAMES USED IN BEEHIVES.

Application filed June 13, 1927. Serial No. 198,423.

My invention relates to a device for lifting comb frames used in beehives. The first frame to be lifted out of a bee-hive is usually hard to remove, inasmuch as the spaces between the frames are not sufficiently large to afford a hand hold. One object of my invention is to overcome that difficulty so as to enable the first frame to be removed without crowding the other frames to one side.

Another object is to afford a means of handling the frame with one hand so that the frame may be readily turned for viewing both sides thereof.

Another object is to provide a means whereby the device will engage the frame when the hand is removed therefrom.

Another object is to provide such a device in a simple and inexpensive form, which may be easily manufactured and marketed at a low cost.

With the above and other objects in view, my invention consists in the combination and arrangement of parts hereinafter described and claimed, and more particularly illustrated in its preferred embodiment in the accompanying drawings, wherein:

Figure 1 is a side view of my invention.

Figure 2 is an end view thereof showing the device as used with a frame.

Figure 3 is a transverse sectional view of Figure 1.

Referring now more particularly to the drawings, I provide a pair of sheet metal stampings 4 formed in the shape of a rectangular frame. One side of the frame is formed into a hand hold 5, and the other side is provided with teeth 6. The ends 7 of the frame are formed in the shape of a reverse curve, and at the medial portion of the curve the said ends 7 have pivot apertures 8. Between the hand hold 5 and the apertures 8 the ends 7 are formed with lugs 9. The said hand hold 5 is formed with its medial portion wider than its ends, and rivet apertures 10 are provided medially the hand hold for a purpose hereinafter described.

In constructing my invention, I pass one frame 5 through the other as shown in Figure 1, and co-operatively and pivotally rivet the frames together as by rivets 11 passed through the pivot apertures 8. I then position a contractile spring 12 between the hand holds 5 as by rivets 13 passed through the rivet apertures 10.

In use, the spring 12 pulls the hand holds 5 together until the lugs 9 engage each other. By this action the teeth 6 are prevented from approaching too closely to each other. When it is desired to grasp a bee-hive frame, as at 14 in Figure 2, the operator spreads the hand holds 5 apart against the spring 12, thus separating the teeth 6 so that the said teeth are thereby adapted to engage the bee-hive frame as shown in Figure 2. The operator now squeezes the hand holds together thereby forcing the teeth into the bee-hive frame, and the spring 12 will retain the device in this position even though the hand of the operator be now removed.

I claim:

1. In a device of the kind described, a pair of rectangular frames, one of said frames being passed through the other and co-operatively pivoted thereto, and a contractile spring co-operatively connecting said frames.

2. In a device of the kind described, a pair of rectangular frames, each end of each frame being formed in a reverse curve, one of said frames being passed through the other and pivoted thereto at the medial point of said curve, and a contractile spring co-operatively connecting said frames.

3. In a device of the kind described, a pair of rectangular frames, one side of each frame being formed with a hand hold, the other side being formed with a plurality of teeth, the ends of each of said frames being formed in a reverse curve, lugs formed on each end of each frame adjacent said hand hold, one of said frames being passed through the other and pivoted thereto at the medial point of said curve, and a contractile spring co-operatively connecting said frames.

4. In a device of the kind described, a pair of rectangular frames, one side of each frame being widened at its medial portion so as to form a hand hold, the other side being formed with a plurality of teeth, the ends of each of said frames being formed in a reverse curve, lugs formed on each end of each frame adjacent to said hand hold, one of said frames being passed through the other and pivoted thereto at the medial point of said curve, and a contractile spring co-operatively connecting said frame.

In testimony whereof I affix my signature.

HUGO A. ZEITLER.