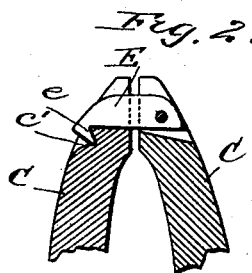
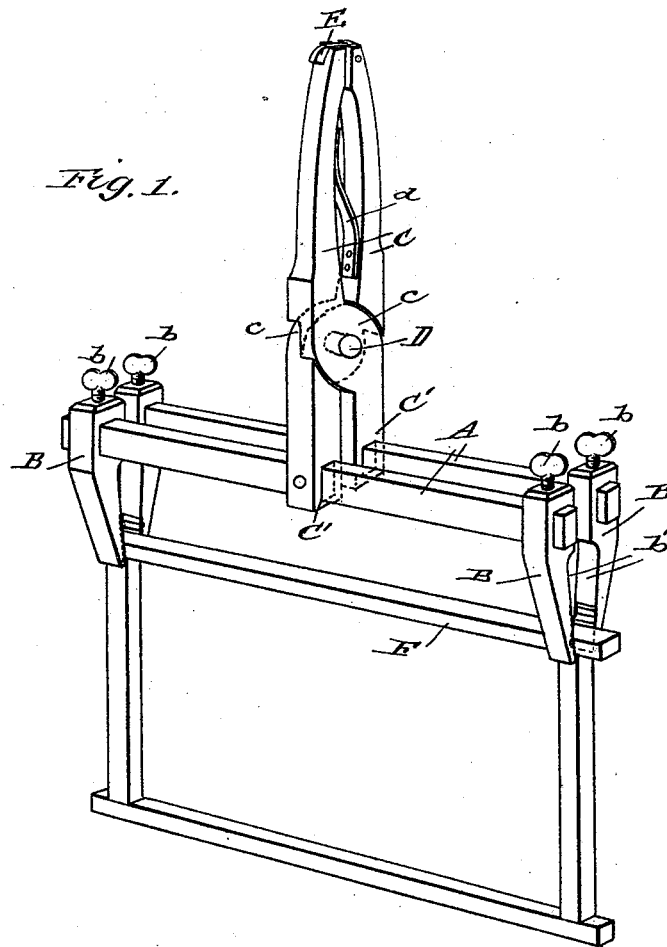


(No Model.)

C. D. HOLT.
TONGS FOR HANDLING COMB FRAMES.

No. 453,905.

Patented June 9, 1891.



WITNESSES:

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CRAWFORD D. HOLT, OF MURRAY, KENTUCKY.

TONGS FOR HANDLING COMB-FRAMES.

SPECIFICATION forming part of Letters Patent No. 453,905, dated June 9, 1891.

Application filed January 23, 1891. Serial No. 378,774. (No model.)

To all whom it may concern:

Be it known that I, CRAWFORD D. HOLT, of Murray, in the county of Callaway and State of Kentucky, have invented a new and useful Improvement in Tongs for Handling Comb-Frames, of which the following is a full, clear, and exact description.

My invention relates to improvements in tongs for handling the comb-frames of bee-hives. Bee-hives as usually constructed are provided with a series of removable frames to be filled by the bees with comb and honey, and it has heretofore been the practice to remove the filled frames with the fingers. This is a difficult operation, and, moreover, the operator is very likely to be stung by the bees.

The object of my invention is to obviate these difficulties by providing means for easily removing the frames without danger to the operator.

To this end my invention consists in a pair of tongs provided with jaws adapted to clasp the tops and sides of the comb-frames and with means for locking the jaws in position.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a perspective view of the device embodying my invention, showing the same clamped to the comb-frame; and Fig. 2 is a broken detailed sectional view of the upper ends of the tongs-handles, showing the latch for locking the handles together.

The jaws of the tongs consist of the parallel bars A and the depending fingers B, which are adjustably mounted thereon, the bars being fixed to the handles as described below. The bars A are preferably of rectangular shape, and the fingers B are slotted near their upper ends, so that they may slide upon the bars. In the tops of the fingers B are thumb-screws *b*, which extend through the upper portion of the fingers and impinge upon the tops of the bars A, and by means of the thumb-screws the fingers may be held in a desired position upon the bars, so that they may be thereby easily adjusted to comb-frames of different widths. The inner sides of the fingers may be corrugated, as shown, to give them a better grip on the comb-frames.

The tongs are provided with suitable handles C, which are slotted at one end, as shown at C', so as to rest upon the bars A, to which they are firmly fixed. The handles C are pivoted together by the pin D, each handle being provided with a rounded offset portion *c*, which receives the pin and which fits in a corresponding recess of the opposite handle, so that the sides of the two handles will be flush with each other, and they will easily turn upon the pin. This construction is one of the common forms of pivoting handles together and needs no further description. The handles are normally held apart by a spring *d*, which is attached to one so as to press against the opposite handle.

The upper ends of the handles C are slotted, as best shown in Fig. 2, and pivoted in one of the handles, so as to swing vertically in the slots, is a latch E, which extends through the slot of the opposite handle, and is provided with a depending hook *e*, adapted to engage an inclined shoulder *c'* on one of the handles C, and the length of the latch is such that when the handles are closed, so as to close the jaws upon the comb-frame, the latch E will drop into position to engage the shoulder *c'*, and the tongs will thus be held in a locked position, so that the operator will not have to depend entirely upon the grip of his hand in order to hold the comb-frame.

To operate the device, the fingers B are adjusted by means of the thumb-screws *b* to suit the width of the frame to be operated on, the latch E is raised so as to disengage the handles C, the lower ends of the fingers B are placed downward over the top and sides of the comb-frame, as F, and the handles are then closed together, thus forcing the fingers upon the comb-frame, and the latch E will drop into place and hold the tongs in a locked position. It will be observed that the inner sides of the fingers B are cut away slightly, as shown at *b'*, so as to incline upwardly, and when they are clamped upon the comb-frame the tendency of the frame will be to work upward rather than downward.

It will be seen that by using the tongs described above a frame full of honey, which is necessarily heavy, may be easily handled, and as the operator's fingers are not brought in

contact with the frame there is little liability of being stung. It will also be observed that the fingers B project downward, so as to grasp the sides as well as the top of the comb-frame, and the frame is thereby held without injury and is prevented from twisting out of place. The fingers too are prevented by the sides of the frame from coming into injurious contact with the honey or brood comb.

10 Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A device of the character described, comprising a pair of handles pivoted together and provided at their lower ends with laterally-extending bars having depending fingers adjustably mounted thereon, substantially as described.

2. In a device of the character described, the combination, with pivoted handles provided with bars on their lower ends, of fingers apertured to receive the bars, and means for securing the fingers in place on said bars, substantially as described.

3. An apparatus of the character described, comprising a pair of handles centrally pivoted together and provided at their lower ends with laterally-extending bars, and depending fingers adapted to slide upon the bars, said fingers being provided with thumb-screws extending through them, so as to impinge upon the bars, and having the inner faces of their lower portions cut away, as shown, substantially as described.

4. A device of the character described, comprising pivoted handles having their upper ends slotted and provided at their lower ends with bars carrying depending fingers, one of the handles being provided with a shoulder c', and the latch E, pivoted in the slot of one handle and adapted to enter the slot of the other handle and engage the shoulder thereof, substantially as herein shown and described.

CRAWFORD D. HOLT.

Witnesses:

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