

Jan. 13, 1931.

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1,788,577

HONEYCOMB FRAME HANDLING PLIERS

Filed Feb. 2, 1929

FIG-1

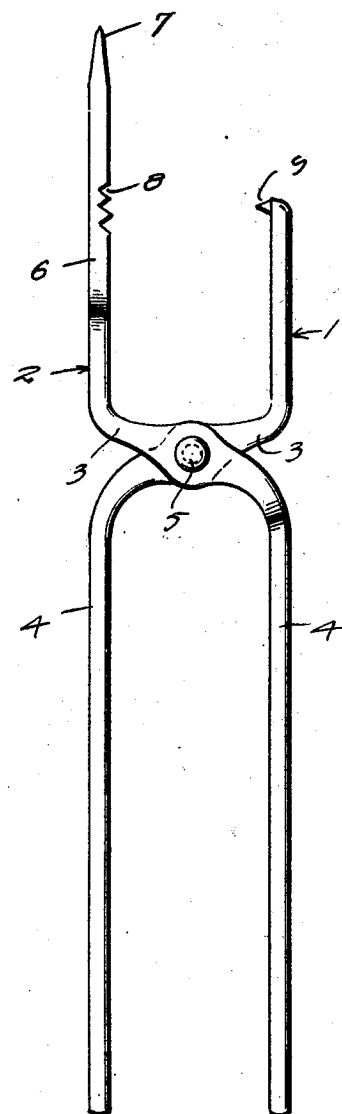


FIG-2

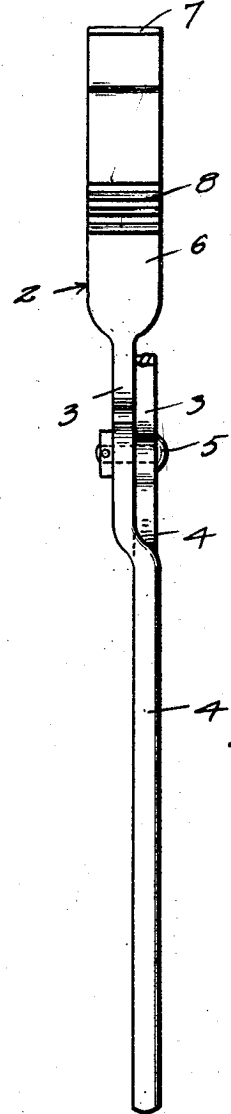
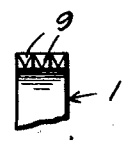


FIG-3



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HONEYCOMB-FRAME-HANDLING PLIERS

Application filed February 2, 1929. Serial No. 337,018.

This invention relates to the class of handling devices and pertains particularly to an improved type of pliers designed especially for use by apiarists.

5 The primary object of this invention is to provide an improved type of pliers designed especially to facilitate the quick and safe removal of honey comb frames from hives, the tool being so constructed that after it is
10 inserted for the grasping of the frame a portion thereof may be employed to cut away the usual waxy material which cements the frame to be removed, to the adjacent frame.

15 A further object of the invention is to provide a pliers for the above described use by means of which a firm grip may be obtained upon the frame to insure the safe removal thereof.

20 The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming a part of this specification, with the understanding,
25 however, that the invention is not confined to any strict conformity with the showing of the drawing but may be changed or modified so long as such changes or modifications mark no material departure from the salient
30 features of the invention as expressed in the appended claims.

In the drawing:—

Figure 1 is a side elevational view of the frame handling pliers;

35 Figure 2 is an edge view of the same partially in section;

Figure 3 is a detailed view of the gripping face of one of the jaws.

40 Referring to the drawing in detail, wherein like numerals of reference indicate corresponding parts throughout the several views, the numerals 1 and 2 designate the jaw members of the pliers embodying the present invention, each of these jaw members having an obliquely angled shank portion 3, which merges into the handle portion 4, which is arranged to extend in a line substantially parallel with the associated jaw but off set therefrom, in the manner
50 shown.

The shank portions of the jaws are arranged in crossed relation in the usual manner in plier construction and pivotally connected together as indicated at 5. The jaws, due to the relatively great length of the shank portions 3 are thus spaced a substantial distance apart, this distance being sufficient to receive a comb frame therebetween.

The jaw 2 of the pliers has a substantial portion from its outer end inwardly flattened or of substantially spatulate form as indicated at 6, the free end thereof being cut square across and sharpened as indicated at 7. The inner face of the spatulate portion of the jaw 2; substantially midway between its ends, is provided with a series of transverse grooves 8, which coact with the jaw 1, in the manner hereinafter described.

The jaw 1 is short as compared with the jaw 2, the end thereof being positioned in alignment transversely of the tool with the grooved face 8 of the spatulate portion of the jaw 2 and this end, as shown, is turned inwardly and is provided with the gripping teeth 9.

When in use, the sharpened end of the spatulate portion of the jaw 2 of the tool is first inserted between the adjacent sides of a pair of frames to cut away the wax which usually secures them together. After separation has been obtained, the jaw 2 is extended further between the frames until the roughened portion 8 of the inner face thereof comes to position against one side of one of the frames, at which time the toothed end 9 of the jaw 1 may be brought to position against the opposite side of the frame and when the handles 4 are drawn together a firm grip will be obtained upon the frame to facilitate its safe removal from the hive.

Having described my invention, what I claim is:—

1. A tool of the character described, comprising a pair of pivotally connected jaw members, handles for actuating the jaws, one of said jaw members being of materially greater length than the other and sharpened to form a transverse cutting edge at its free end, and means to facilitate the

grasping of a body between the jaws, said longer jaw being of substantially spatulate formation.

2. In a tool of the character described, a pair of jaw members, means for pivotally connecting the jaws together for relative movement, handle members associated with the jaws, one of said jaw members being of spatulate formation throughout the major portion of its length and having one broad face opposing the other jaw, said broad face having grooves formed transversely thereof, and teeth formed across the end of said other jaw designed to coact with said grooves for the gripping of an article.

3. In a tool of the character described, a pair of jaw members, means for pivotally connecting the jaws together for relative movement, handle members associated with the jaws, one of said jaw members being of spatulate formation throughout the major portion of its length and having one broad face opposing the other jaw, said broad face having grooves formed transversely thereof, and teeth formed across the end of said other jaw designed to coact with said grooves for the gripping of an article, said jaws being relatively widely spaced apart to facilitate the engagement therebetween of a honey comb frame.

In testimony whereof I hereunto affix my signature. ANTON V. KOUBA.

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