April 15, 1952 W. H. HOWARD 2,593,304

HIVE TOOL

Filed Jan. 10, 1947 2 SHEETS—SHEET 1

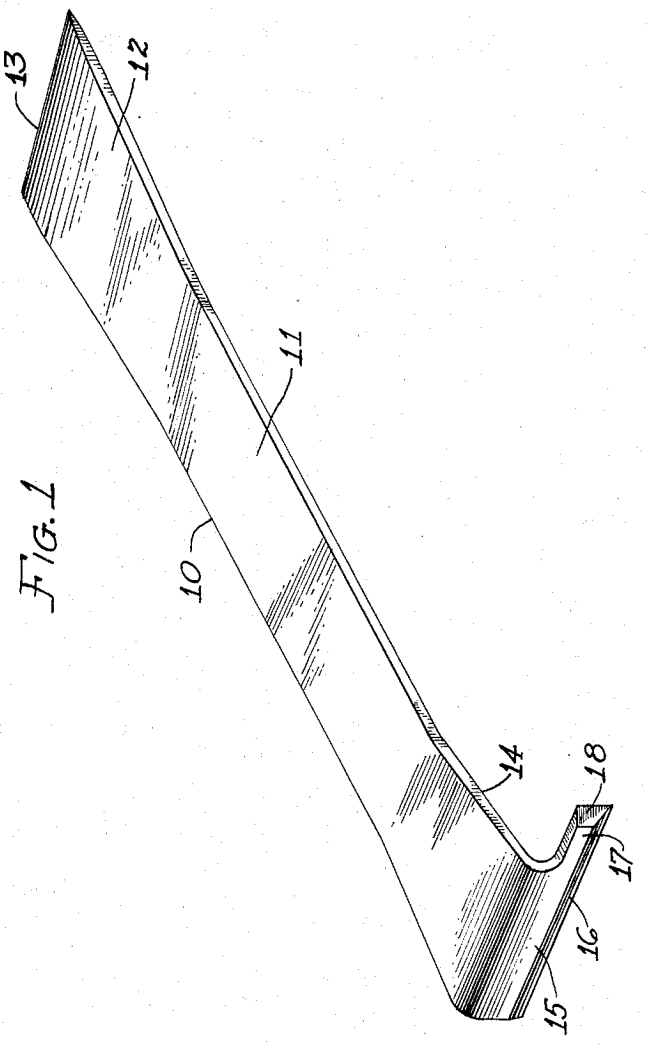

FIG. 1

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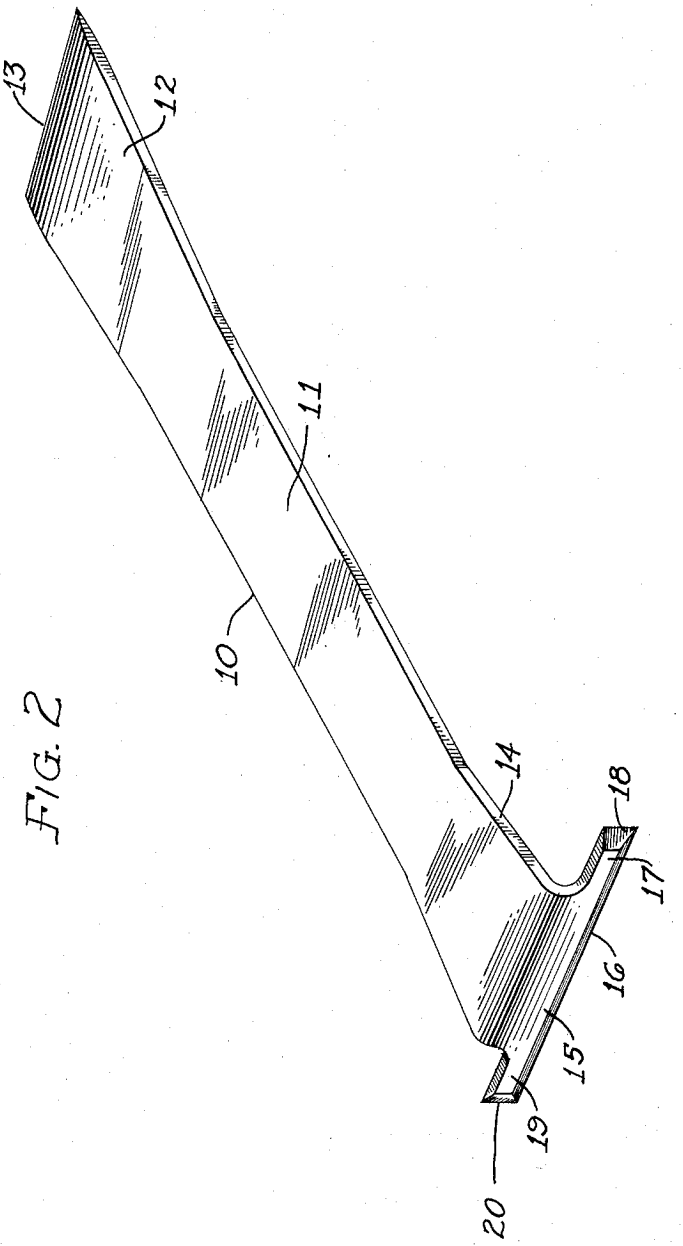

FIG. 2

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HIVE TOOL

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3 Claims. (Cl. 6—12)

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This invention relates to an apiarist's hive tool and has for its primary object the provision of such a tool, which is designed for most efficient handling to enable free use of both hands while working on a hive, and which enables the removal of frames from the hive with minimum effort and which is capable of performing all tasks incident to the care of hives, including the starting, prying and loosening of the frames without damage to the frames and without injury to the bees.

Specifically, the invention contemplates a hive tool wherein the head portion is extended laterally by means of an integral lug member at one side or the other of the tool to provide for use thereof either right hand or left hand, depending upon the side of the head portion extended, or at both sides of the tool for use interchangeably—either right hand or left hand.

The foregoing and other objects of the invention are attained by the tool illustrated in the accompanying drawings, in which

Fig. 1 is a general perspective view of a hive tool constructed in accordance with this invention, showing the tool having a generally flat shank portion flared adjacent the head of the tool, which is provided with a depending flange having the laterally extending lug of this invention at one side thereof; and

Fig. 2 is a general perspective view of that form of the invention having a double head portion and comprising the generally flat shank portion flared adjacent the head of the tool, which is provided with oppositely extending lateral projections beyond the flared portion.

The hive tool of this invention is designed for easy handling while working upon hives, and is adapted to be held in either one hand or the other and may be so held while handling the various parts contained in the hive without the necessity of laying the tool aside, and therefore enables the free use of either one or both hands while performing the various tasks necessary to the care of the hives. The tool provides for the removal of wax and propolis from the channel between the metal frame rest and wooden hive body, and in one operation permits the removal of such elements from the rabbets and corners of hive bodies and supers, and similarly, from the corners of inner covers and bottom boards. The tool is exceedingly efficient for speedily tearing out Queen cells with absolute minimum injury to surrounding brood and is excellent for loosening and prying out the brood

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frames in the brood chamber of the hive without damage to the frame.

In the drawings, 10 represents a hive tool which in the present instance is constructed of metal, preferably of steel that has been hardened and tempered to approximate Brinell hardness range of 300 to 410, but which may be manufactured of any other material or materials which would have the same comparable physical characteristics. The hive tool comprises a flat shank portion 11 flared at one end, as at 12, and provided with a relatively sharp edge portion 13. The opposite end of the shank portion also is flared, as indicated at 14, adjacent the head portion which is formed by a down-turned flange 15 which also is sharpened to form a sharpened edge portion, as shown at 16. In the form shown in Fig. 1, the hive tool head portion is provided with a laterally extending lug 17 having a sharpened edge portion 18. The tool illustrated in this figure, having the laterally extending lug formed as shown, is designed for use with the left hand, but may be constructed for use with the right hand by providing a similar lug at the opposite side of the head portion instead of that shown.

In Fig. 2, the hive tool 10 also is comprised of a shank portion 11 having a flared portion 12 adjacent the sharpened end portion 13 and a similarly flared portion 14 adjacent the head of the tool at the opposite end. The head of this tool is formed by a depending flange 15 having a sharpened edge portion 16 and which is provided with oppositely extending laterally projecting lugs 17 and 19 having sharpened vertical edge portions 18 and 20, respectively. In both forms of the invention it will be noted that the lug portions 17 and 19 extend laterally beyond or outwardly of the flared shank portion so that the tools may be used most efficiently in the removal of wax and propolis from the various elements of the hive and in prying and loosening the various parts either with one hand or the other.

I am aware that prior to my invention of this hive tool there have been hive tools in use which might be described as comprising a flat strip of metal with one end bent at right angles to provide a head portion which is of the same width as the balance of the tool, but the present invention, with the laterally extended lug portions on the head of the tool, provides a highly efficient improvement not contemplated by the prior devices.

What is claimed is:

1. A hive tool comprising a flat shank por-

tion having one end portion disposed at an angle to the plane of the shank to form an integral flange coextensive with the width of the shank, and a coplanar lug portion integral with said flange projecting laterally beyond the width of said shank portion at one side thereof.

2. A hive tool comprising a flat shank portion having one end portion disposed at an angle to the plane of the shank to form an integral flange coextensive with the width of the shank, and oppositely extending coplanar lug portions integral with said flange projecting laterally beyond the width of said shank portion at respective sides thereof.

3. A hive tool comprising a flat shank portion having a flared portion adjacent one end, said end being disposed at an angle to the plane of the shank to form an integral flange coextensive with the major width of said flared portion, and a coplanar lug portion integral with said flange projecting laterally beyond the major width of said flared portion at one side thereof.

4. A hive tool comprising a flat shank portion having a flared portion adjacent one end, said end being disposed at an angle to the plane of the shank to form an integral flange coextensive with the major width of said flared portion, and oppositely extending coplanar lug portions integral with said flange projecting laterally beyond the major width of said flared portion at respective sides thereof.

5. A hive tool comprising a flat shank portion having one end portion disposed at an angle to the plane of the shank to form an integral flange coextensive with the width of the shank, said flange having a sharpened edge portion full width of the tool, and a coplanar lug portion integral with said flange projecting laterally beyond the width of said shank portion at one side thereof, said lug portion having a sharpened edge portion forming a continuation of said sharpened flange edge portion and a sharpened edge portion extremity on said lug portion at right angles to said first-named sharpened edge portion and continuous therewith.

6. A hive tool comprising a flat shank portion having a flared portion adjacent one end, said end being disposed at an angle to the plane of

the shank to form an integral flange coextensive with the major width of said flared portion, and a coplanar lug portion integral with said flange projecting laterally beyond the major width of said flared portion at one side thereof, said flange and said lug portion having a continuous sharpened edge portion extending full width of the tool and said lug portion having a sharpened edge portion extremity at right angles to said first-named sharpened edge portion and continuous therewith.

7. A hive tool comprising a flat shank portion having one end portion disposed at an angle to the plane of the shank to form an integral flange coextensive with the width of the shank, oppositely extending coplanar lug portions integral with said flange projecting laterally beyond the width of said shank portion at respective sides thereof, said flange and said opposite lug portions having a sharpened edge portion extending continuously full width of the tool, and each of said lug portions having an oppositely directed sharpened edge portion extremity at right angles to said first-named sharpened edge portion and continuous therewith.

8. A hive tool comprising a flat shank portion having a flared portion adjacent one end, said end being disposed at an angle to the plane of the shank to form an integral flange at least coextensive with the major width of said flared portion, said flange having a sharpened edge portion extending continuously full width of the tool, and a sharpened edge portion on said flange at right angles to said first-named edge portion projecting laterally beyond the width of said shank portion.

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The following references are of record in the file of this patent:

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