Oct. 21, 1947. C. A. HEIN 2,429,550

CABINET FINISHING TOOL

Filed April 2, 1946

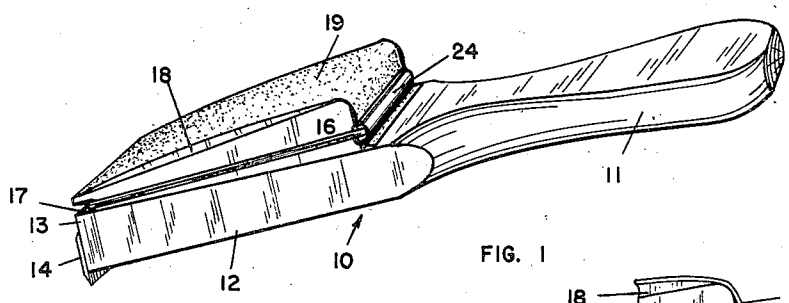


FIG. 1

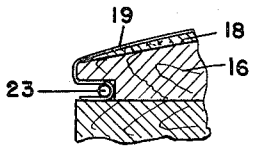


FIG. 6

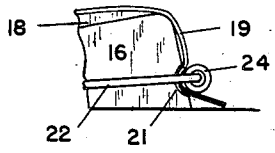


FIG. 7

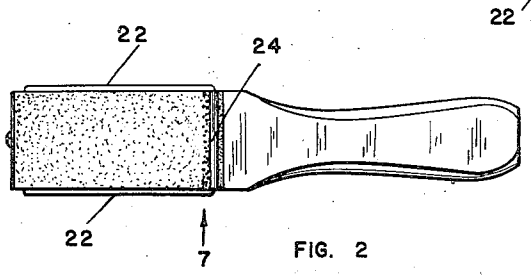


FIG. 2

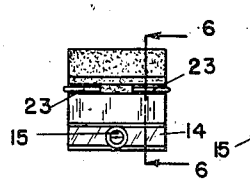


FIG. 4

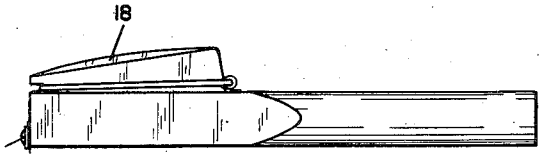


FIG. 3

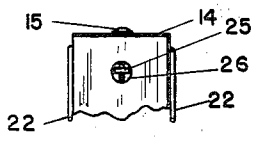


FIG. 5

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CABINET FINISHING TOOL

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1 Claim. (Cl. 51—187)

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This invention relates to improvements in cabinet finishing tools and has reference more particularly to a combination scraper and sander.

Wherever fine carpentry work is done and more particularly where cabinet work is done, the finishing is of prime importance and for this purpose scrapers and sanders are employed.

It is well known that many hand sanders have been disclosed in prior patents and this invention, therefore, relates to improved embodiments of such devices.

It is the object of this invention to produce a simple hand sander that can be constructed from wood or from any other suitable material and which shall be so designed that the abradant strip can be readily removed and applied thereto.

Another object of this invention is to produce a hand sander to which a scraper blade can be readily attached and by means of which scraping can be effected.

A further object of the invention is to produce a sander having a simple and effective means for securing the abradant material thereto.

And a still further object is to produce a sander having a shape which permits it to be conveniently operated.

The above and any other objects that may become apparent as the description proceeds are obtained by means of a construction and an arrangement of parts that will now be described in detail, and for this purpose reference will be had to the accompanying drawing in which the invention has been illustrated in its preferred form, and in which:

Figure 1 is a perspective view of the finishing tool;

Figure 2 is a top plan view thereof;

Figure 3 is a side elevation;

Figure 4 is an end elevation;

Figure 5 is a fragmentary bottom plan view;

Figure 6 is a fragmentary section taken on line 6—6, Figure 4; and

Figure 7 is a fragmentary side elevation to a somewhat enlarged scale looking in the direction of arrow 7, Figure 2.

In the drawing reference numeral 10 designates the handle in its entirety. The handle has a handgrip portion 11 and a wide flat end 12 that terminates in a transverse flat surface 13, against which a scraper blade 14 is clamped by means of a screw 15. Secured to one side of the flat end portion is a block 16, preferably of wood, whose longitudinal cross section 16 is that of an elongated trapezium. Block 16 may be secured to

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the flat end portion 12 by a suitable glue or may be attached thereto by screws or any other suitable means. The thin end of the block is provided with a groove 17 that extends from one side to the other. A layer of felt 18 is secured to the outer inclined surface of the block to form a yielding base for a strip of abradant 19 which may be a piece of sand paper or emery cloth or any other finishing material.

The thick end of block 16 terminates in a flat end surface 20 that is preferably perpendicular to the inclined surface and this is provided with a concave groove 21. A clamping means comprising a loop of wire whose sides have been designated by reference numeral 22 and one end of which is formed by inturned end portions 23 as shown in Figure 4. The other end portion extends through a rubber tube 24. When the abradant material is applied to the block, one end is positioned across groove 17 as shown in Figure 6. The ends 23 of the loop are then positioned against the outside of the abradant material and the latter is curved inwardly into the groove. The other end of the abradant material is folded over the thick end of the block, after which the bail is moved downwardly, bringing the tubular member 24 directly over the depression 21, as shown in Figure 7. By properly proportioning the bail, the abradant material will be held securely in position because the ends 23 curve it inwardly into groove 17 and the opposite end having the rubber tube 24 curves the other end of the abradant material into the groove or depression 21. When the abradant is in position, the assembly has the appearance shown in Figure 1. Whenever the abradant is worn to such an extent that it must be replaced; this can be easily effected by swinging the bail upwardly and thereby releasing the worn out abradant. A new strip is then positioned over the block and clamped thereto by means of the bail.

The scraper blade 14 is held in place by the screw 15, which engages a nut 25 positioned in an opening 26 as shown in Figure 5.

Although the invention as illustrated in the drawing has been shown as formed from wood, it, is evident that it can be constructed of any other suitable material. The block 16 can be integral with the handle portion and the whole handle and the block may be molded from a suitable plastic or formed from metal such as soft iron, by means of suitable dies.

Applicant does not, of course, desire to be limited to any particular material, as it is his inten-

tion to select the material most suitable for the purpose.

Attention is called to the great simplicity of this construction and to the ease with which the abradant may be applied thereto or removed therefrom. The bail has been shown as having the side at the tapered end of the block formed from two inwardly turned parts **23**. It is to be understood, however, that these ends may be longer than shown and may be welded so as to form an endless loop or bail.

Having described the invention, what is claimed as new is:

A hand sander and finishing tool comprising, a flat, elongated sustantially rigid handle having a trapezoidal block on one side having the thin end of the block terminating near the outer end of the handle, the cross section of the block in a plane perpendicular to the handle being substantially rectangular, the thin end of the block having a groove extending from one side to the other, a layer of felt on the inclined surface, a sheet of abradant material covering the felt and the opposite ends of the block, and means for releasably securing the abradant in place, comprising a wire loop having opposed parallel sides, one of the sides resting against the outer surface of the abradant, over the groove, pressing the abradant into the groove and the other parallel side contacting the outer surface of the abradant at the thick end of the block.

CLARENCE A. HEIN.

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