

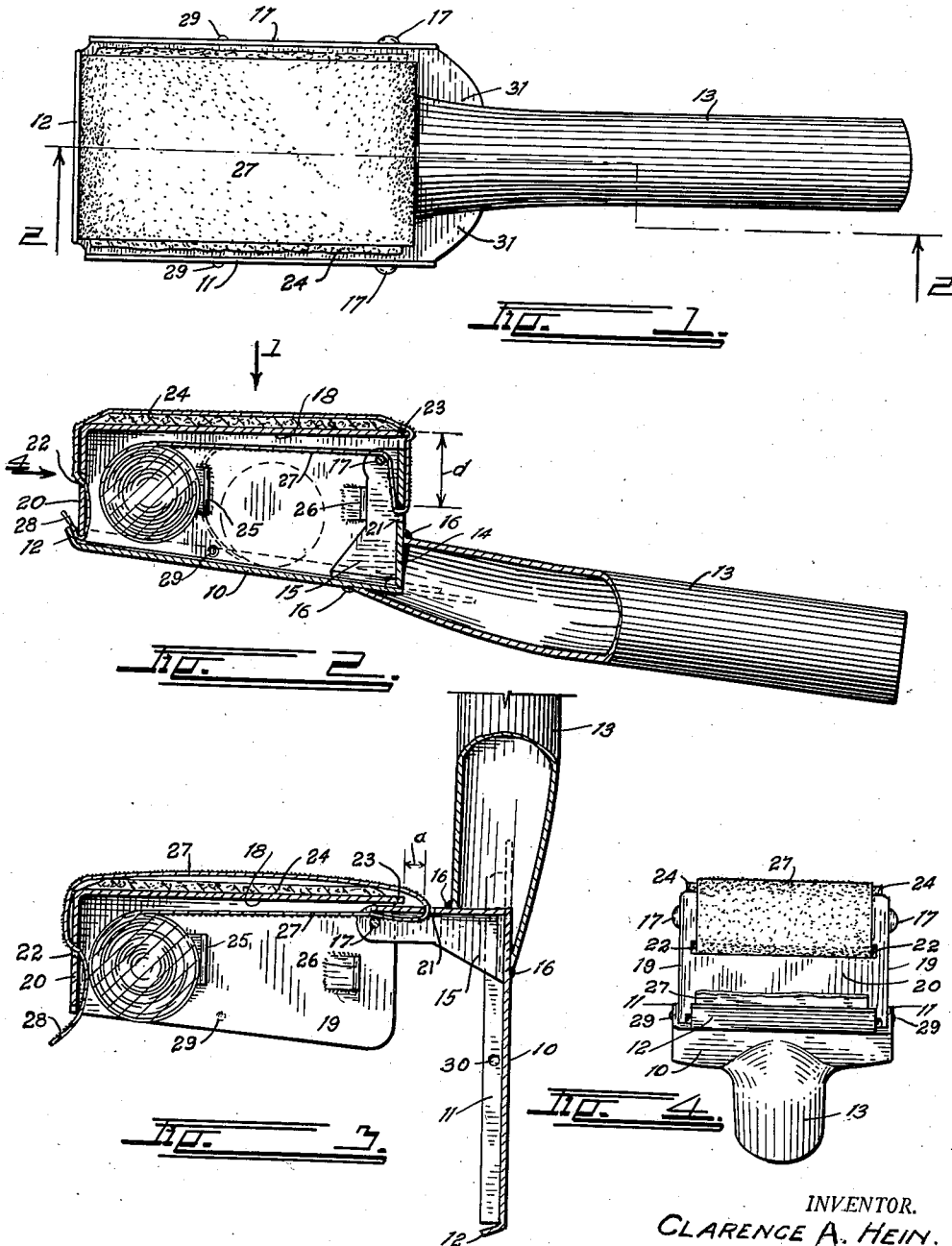
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SANDING AND FINISHING TOOL

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SANDING AND FINISHING TOOL

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2 Claims. (Cl. 51—187)

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This invention relates to improvements in sanding and finishing tools.

Cabinet makers and carpenters, more particularly, as well as many others, find it necessary to employ an abradant of the type usually referred to as sand paper or emery cloth, for finishing

woodwork and polishing and cleaning metal. Many different tools have been invented for the purpose of holding the abradant material during operation and applicant, therefore, does not claim to be the original inventor of such tools broadly.

It is the object of this invention to produce a tool for holding and using abradant material of the type mentioned above, which is prepared in long strips.

Another object of the invention is to produce a tool of the type mentioned in which the abradant material can be quickly replaced with a new section when worn.

A further object of the invention is to produce a tool of the class described in which the tool itself will tension the abradant material during the operation of effecting such change.

A further object of the invention is to produce a tool of a simple and substantial construction that can be made from metal by means of suitable dies and which requires very little hand work in its production.

The above and other objects that may become apparent as this description proceeds are attained 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 top plan view of the tool looking in the direction of arrow 1, in Figure 2;

Figure 2 is a section taken on line 2—2, Figure 1;

Figure 3 is a section similar to that shown in Figure 2, but shows the parts in open or inoperative position, which position is assumed during the abradant changing operation; and

Figure 4 is an end view looking in the direction of arrow 4, in Figure 2.

The tool consists of a substantially flat base 10 whose edges have been turned upwardly through an angle of ninety degrees, providing flanges 11 as shown in Figure 4. One bend is bent upwardly providing a slightly upwardly and outwardly inclined flange 12, as shown more particularly in Figures 2 and 3. The base is provided at one end with a handle 13 of any suitable

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construction. The end of the base to which the handle is attached is provided with an upwardly extending wall 14 whose edges are bent at right angles forming flanges 15. This wall is soldered or welded to the base and to the handle, as shown in the drawing. The welds between the handle and the base have been designated by reference numeral 16. Flanges 15 are provided near their upper ends with openings for the reception of a hinge pin or pivot 17. A cover comprising a flat portion 18, side walls 19 and an end wall 20, is hinged to the brackets by means of pivot 17 so that it may be moved from the position shown in Figure 2 to that shown in Figure 3. Wall 14, is provided with a transverse slot 21 positioned below the pivot 17 and end wall 20 is provided with a similar slot 22, positioned as shown in Figures 2 and 3. The rear end of cover 18 terminates at point 23 and therefore when the parts are in closed position as shown in Figure 2, the distance from the upper wall of slot 21 to the rear end of cover 18 has been designated by the letter d which is the maximum distance between these two points.

Referring now to Figure 3, it will be observed that the distance that corresponds to distance d in Figure 2, is the distance designated by a . A comparison of these distances shows that distance d is much greater than distance a . This is an important feature of the invention and will be referred to in greater detail hereafter.

A felt pad 24 is glued or otherwise secured to the outer surface of cover portion 18. Sides 19 are each provided with two spaced inwardly extending lugs 25 and 26 between which is positioned a roll of abradant material such as sand paper. In the drawing this roll has been shown as positioned between lugs 25 and end 20 which is one of the optional positions and preferably under certain circumstances. The abradant material has been designated by reference numeral 27 and passes from the roll over pivot 17, thence downwardly through opening 21, thence upwardly over the felt strip down along end 20 through opening 22 and outwardly underneath the edge of end wall 22, as shown in Figure 3. When the cover is brought from the position shown in Figure 2, to that shown in Figure 3, the operator bends the end 28 upwardly and keeps it from slipping, after which he moves the cover downwardly into the position shown in Figure 2. During this movement distance a is increased to d and since the abradant strip cannot slide from the movable end of the cover, it will be pulled from the roll and down to the tortuous path and due

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to its passage around pivot 17 and around the upper edge of slot 21 the abradant will be tensioned. Flange 12 holds the abradant and prevents it from slipping.

The sides 19 are provided with inwardly extending lugs or projections 29 that are adapted to project into openings 30 in flanges 11 and the parts are therefore held in the position shown in Figures 1 and 2 with sufficient force to prevent the cover from accidental tightening during operation.

When the roll of abradant is moved from the position shown in the drawing to that shown in dotted lines in Figure 2, the strip of abradant will pass over lugs 25 and this will further increase the resistance to movement during the closing operation and is therefore desirable where the abradant is to be put under a considerable tension.

From the above description, it will be seen that the invention to which this application relates is of a simple and substantial construction; that its construction is such that it can employ abradant material from a roll that is housed inside of the cover in the manner shown in Figure 2.

Particular attention is called to the construction by means of which the abradant is put under tension when the cover is closed. This assures that the abradant will always be properly tensioned and makes it unnecessary to provide extra clamping means.

Although a handle of a certain construction has been shown, it is evident that any other suitable handle may be provided. In the drawing the handle has been braced by gusset stays 31 which are part of the base 10, but it may of course be held by any other suitable means.

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

1. A sanding tool comprising, a rigid handle portion terminating at one end in a substantially rectangular base, brackets extending upwardly from the base adjacent its connection with the handle, an abradant carrying cover pivotally connected with the brackets near their upper ends, a brace plate interconnecting the brackets, said plate terminating a distance below the pivot

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slightly greater than the distance from the pivot to the rear surface of the plate, the upper rear corner of the pivoted member being in the plane of the rear surface of the plate when the parts are in operative position, the upper rear corner of the cover moving in an arc of a circle when the member is moved to open position, whereby its distance from the lower edge will decrease, and a strip of abradant in roll form positioned in the cover, said strip passing over the pivot thence underneath the brace plate and up over the rear corner of the cover, thence along the outer surface of the cover to the free end thereof.

2. A hand sander and finishing tool comprising an elongated substantially rectangular base having a handle secured to and extending from one end thereof, a bracket extending upwardly at each corner at the end nearest the handle, a box-like cover having two elongated sides and one end wall, the side wall being pivoted to the brackets near their upper ends, the pivot being spaced from the open end, whereby when the cover is turned about the pivot the rear corner will move relative to the base, a wall interconnecting the brackets, the lower edge of the wall being spaced downwardly from the pivot a distance at least as great as the distance from the pivot to the open end of the cover, the end wall of the cover having a slit extending from one side to the other, a strip of abradant, in roll form, positioned in the cover, passing over the pivot, thence underneath the wall connecting the brackets, thence over the pivoted end of the cover, thence along the cover, down along the end wall thereof and through the slit in said end wall, thence underneath the end wall, whereby when the cover is moved to closed position the distance from the lower edge of the bar connecting the brackets and the slit in the end wall of the cover will increase as the cover is moved to closed position, means for latching the cover in closed position, and means for clamping the end of the abradant.

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No references cited.