June 9, 1936. N. A. EASTERS 2,043,509

METAL AND WOOD SURFACING TOOL

Filed Aug. 12, 1935 2 Sheets-Sheet 1

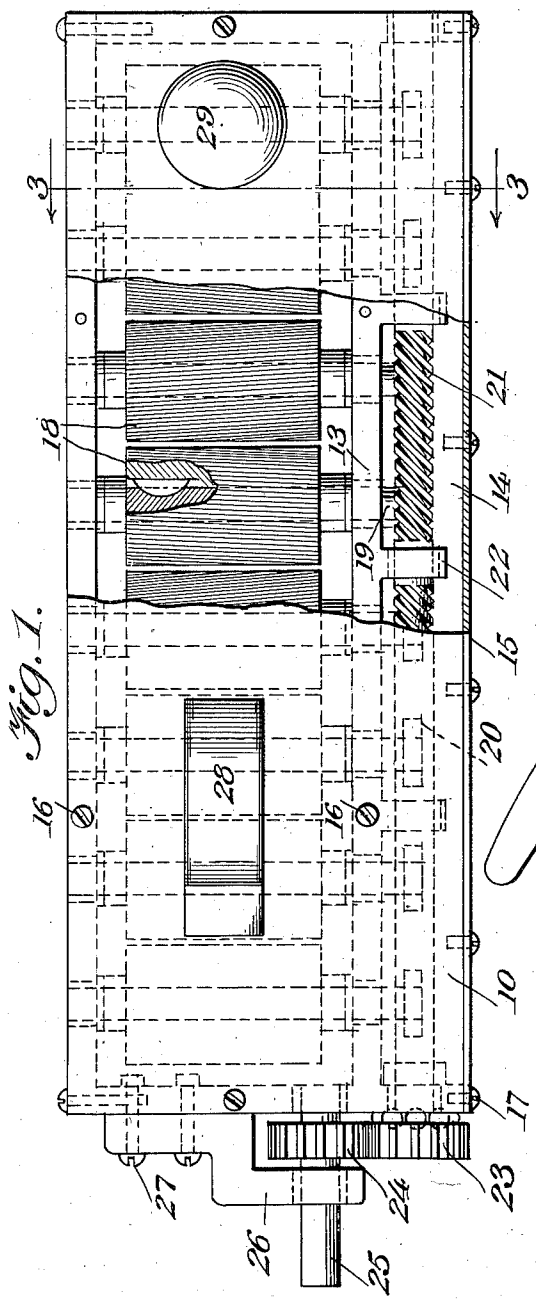


Fig. 1.

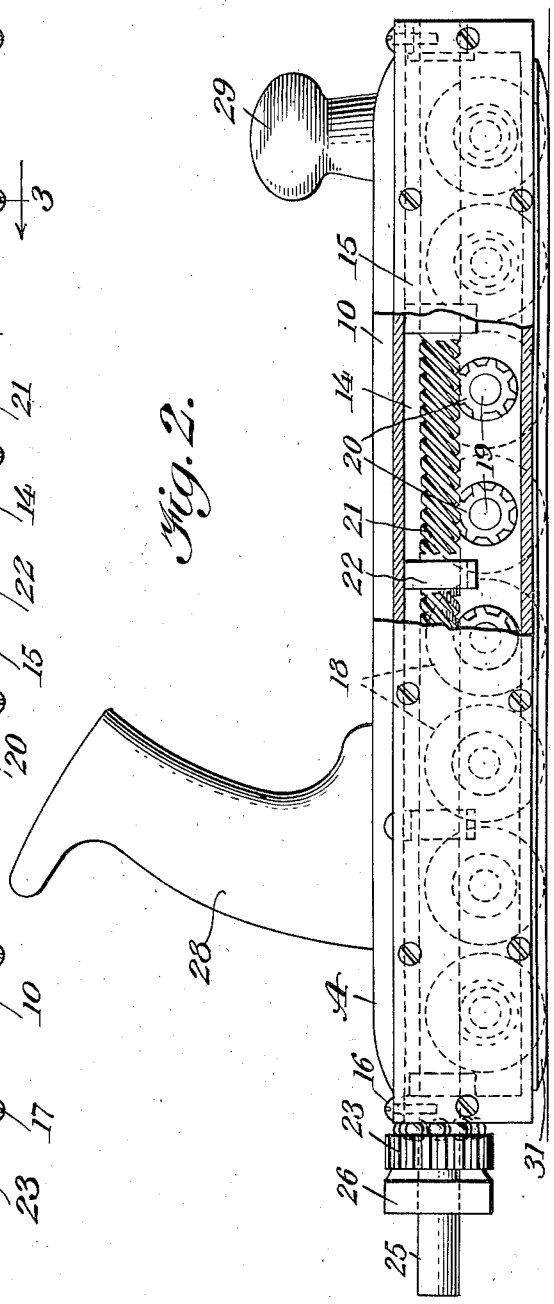


Fig. 2.

Noble A. Easters
INVENTOR

BY Victor J. Evans & Co.
ATTORNEYS

June 9, 1936. N. A. EASTERS 2,043,509

METAL AND WOOD SURFACING TOOL

Filed Aug. 12, 1935 2 Sheets-Sheet 2

Fig. 4.

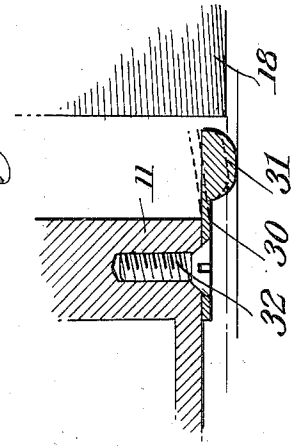


Fig. 3.

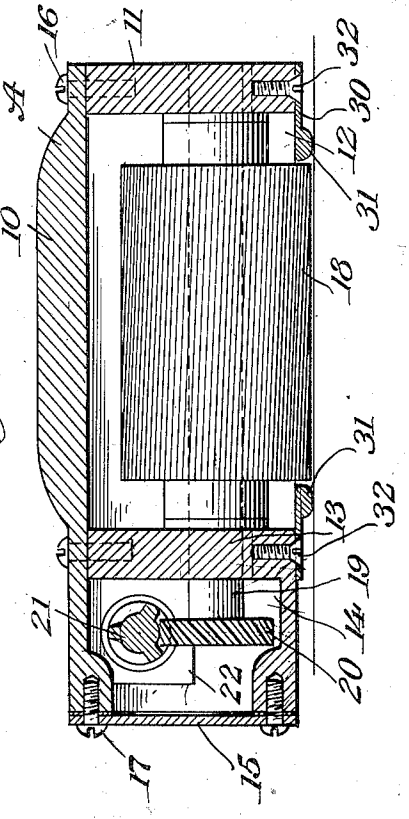
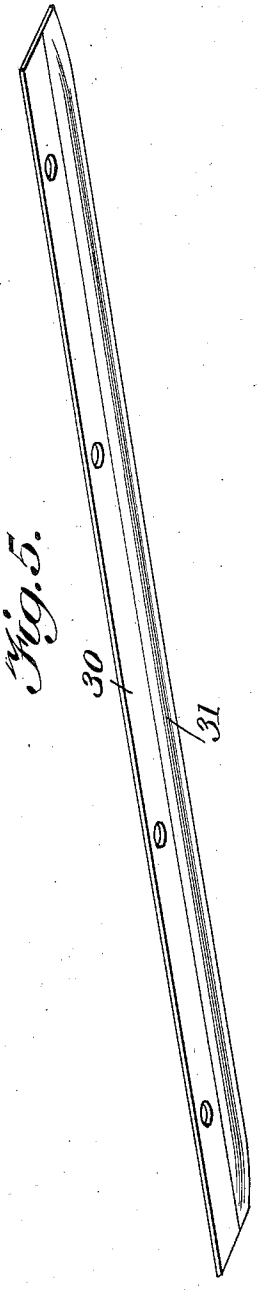


Fig. 5.



Noble A. Easters
INVENTOR

BY Victor J. Evans & Co.
ATTORNEYS

Patented June 9, 1936 2,043,509

UNITED STATES PATENT OFFICE

2,043,509

METAL AND WOOD SURFACING TOOL

Noble A. Easters, Brunswick, Ga.

Application August 12, 1935, Serial No. 35,874

1 Claim. (Cl. 29—76)

The invention relates to a metal and wood surfacing tool and more especially to a power driven portable hand surfacing tool.

The primary object of the invention is the provision of a tool of this character, wherein the surface of metal or wood can be smoothed, filed or finished and the tool is operated by a power unit, thereby relieving the user from the task of hand operation thereof excepting that required of the user to guide the said tool and the surfacing or finishing of the work will be had with dispatch.

Another object of the invention is the provision of a tool of this character, wherein the depth of action thereof in the smoothing, filing and finishing of a surface, either metal or wood, such as automobile bodies is controllable the tool being equipped with a depth gage which also functions as runners for the tool and in this manner shallow or deep cutting or filing of the work may be had.

A further object of the invention is the provision of a tool of this character, which is comparatively simple in construction, readily and easily handled, thoroughly reliable and efficient in operation, portable, strong, durable and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings, which disclose the preferred embodiment of the invention and pointed out in the claim hereunto appended.

In the accompanying drawings:

Figure 1 is a top plan view partly in section of a tool constructed in accordance with the invention.

Figure 2 is a side elevation partly in section thereof.

Figure 3 is a sectional view on the line 3—3 of Figure 1 looking in the direction of the arrows.

Figure 4 is an enlarged fragmentary vertical transverse sectional view showing in detail one of the gages employed with the tool.

Figure 5 is a perspective view of one of the said gages.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, the tool comprises a stock A including a top or cover section 10 for a body frame 11 which is preferably of rectangular elongated formation open at the bottom thereof as at 12, one side portion 13 of this frame providing a gear chamber 14 and carries a removable side plate 15 so that access may be had to the interior of the said chamber when the occasion requires. The top or cover section 10 and the plate 15 are removably secured in place by fasteners 16 and 17, respectively.

Arranged within the frame 11 is a series of transversely disposed dressing and surfacing rollers 18, their journals 19 being fitted in opposite sides of the frame 11 and extend at the side 13 into the chamber 14. Each journal 19 carries a worm gear 20 meshing with a worm screw feed shaft 21, it being journaled in bearings 22 formed with the side 13 and projected into the chamber 14.

The shaft 21 projects exteriorly of the frame 11 at the heel end thereof and this projected end carries a gear 23 meshing with a companion gear 24 on a stud shaft 25 journaled in a bracket 26 and the adjacent end of the frame 11, the bracket 26 being secured to the end of the frame next thereto by fasteners 27.

Rising from and carried by the top or cover section 10 is a handle 28 while forwardly of the latter and on the top or cover section is a guiding knob 29 so that the tool can be hand manipulated and guided when operating upon a piece of work, such as metal or wood for the smoothing, filing or finishing of the surface of the same.

The stud shaft 25 is adapted for connection with a power unit (not shown), such as an electric motor, for example, or other power source.

Carried by the frame 11 at opposite sides of the open bottom thereof are depth gages, these being in the form of spring strips 30 coextensive with the length of the frame having at their under sides and at the inner edges of the same beads 31, these serving as runners for the tool. The strips 30 at their outer edges are secured by fasteners 32 to the under side of the frame 11 so as to be parallel with each other and at opposite sides of the rollers 18. These gages when in normal condition maintain the rollers 18 out of contact with a surface of a piece of work and when pressure is exerted downwardly upon the stock A of the tool the gages will spring to allow the rollers 18 to make contact with a surface of the work. In the use of these gages depth cutting or finishing of a piece of work can be regulated in the use of the tool. The greater the pressure exerted upon the stock A of the tool the deeper the rollers 18 will operate with relation to the work.

The chamber 14 is adapted to contain lubricant for lubrication purposes in the surfacing of the work.

The rollers 18 at the working surface thereof may be serrated or file surfaced for the smoothing, filing or finishing of the surface of metal or wood when the tool is used and as previously indicated it is power driven.

What is claimed is:

A tool of the character described comprising a box-like stock of elongated substantial rectangular shape and having an opening in its bottom for a major portion of its length, a plurality of closely arranged surfacing rollers journaled interiorly of the stock transversely thereof in close relation to each other for exposure through the open bottom, a worm screw feed shaft journaled longitudinally in the stock at one side of said rollers, worm gears fixed with the rollers and meshing with the worm screw feed shaft, a power driven connection on the stock associated with said worm screw feed shaft, strip-like resilient gages fixed longitudinally of the stock at its bottom to extend into the opening in the later close to opposite ends of the rollers, and a bead throughout the length of said gages at the outer faces thereof next to the edges adjacent to said rollers.

NOBLE A. EASTERS.