

3,224,149

Filed Dec. 16, 1963

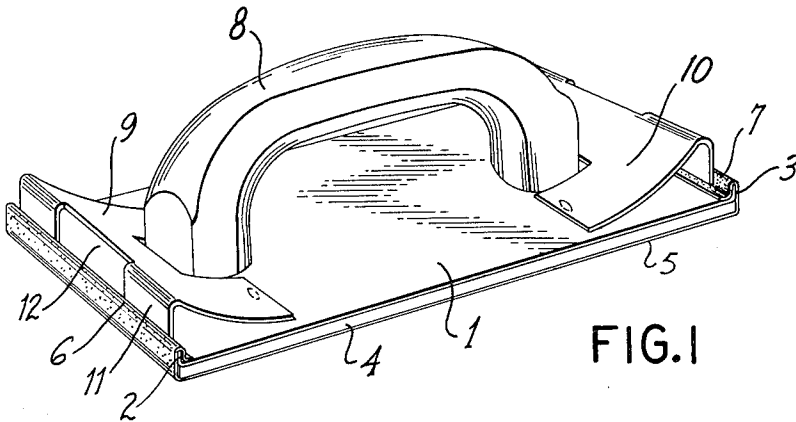


FIG. 1

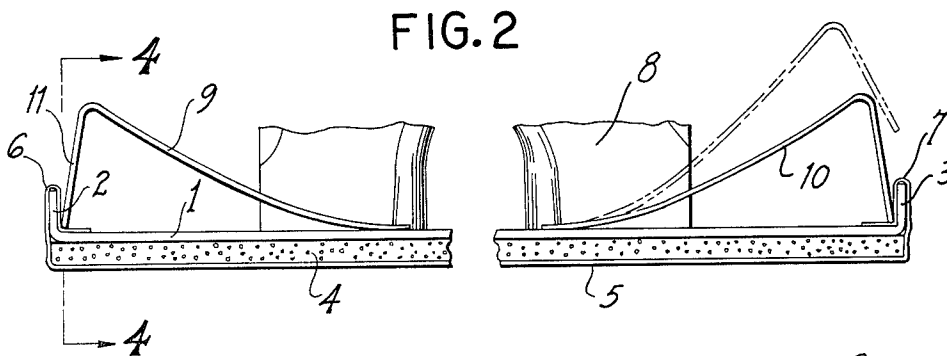


FIG. 2

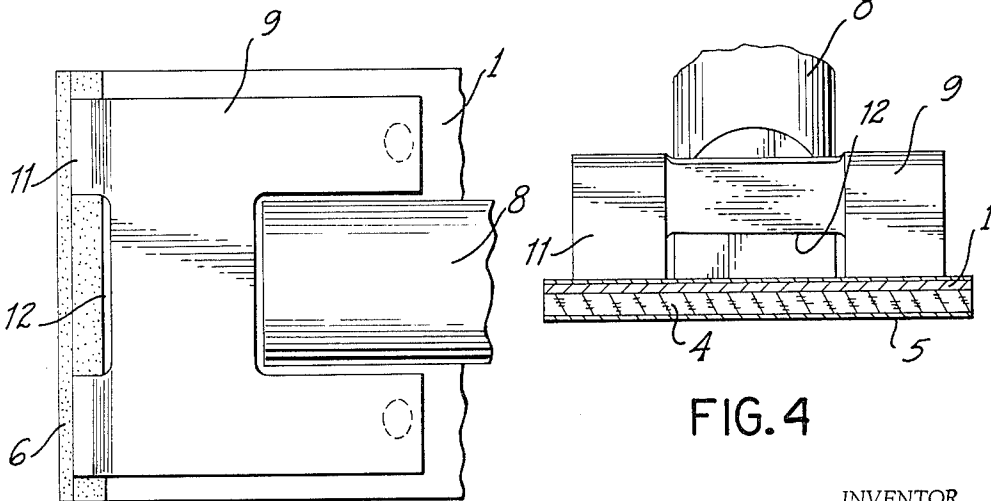


FIG. 4

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FIG.3

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HAND SANDER
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Filed Dec. 16, 1963, Ser. No. 330,955
1 Claim. (Cl. 51—386)

This invention relates to a hand sander, and particularly to a means of effectively gripping the sheet of sandpaper so that it will be effectively held on the flat face of the sander, thereby preventing slipping of the sandpaper relative to the sander, and also enabling the sandpaper to be effectively used until it is worn out.

Another object of our invention is to provide a novel hand sander which will effectively hold the sheet of sandpaper without the previously employed wing nut or coil spring clamps. Also the sandpaper can be very quickly and easily changed when necessary.

Still another object of our invention is to provide a hand sander which has a large, smooth and comfortable handle which is grasped by the workman; and also the sander is provided with a cork pad against which the sandpaper bears. Our sander also includes a steel base plate to which the handle is attached, thus providing a rigid and effective base against which pressure can be applied to effectively sand the required surfaces.

Other objects, advantages and features of invention may appear from the accompanying drawing, the subjoined detailed description and the appended claim.

In the drawing:

FIGURE 1 is a perspective view of our hand sander.

FIGURE 2 is a fragmentary side elevation of the same.

FIGURE 3 is a fragmentary plan view of one end of the sander.

FIGURE 4 is a sectional view taken on line 4—4 of FIGURE 2.

Referring more particularly to the drawing, the numeral 1 indicates a flat rectangular steel plate, and both ends of this steel plate are bent upwardly at right-angles, as shown at 2 and 3. The purpose of these bent edges, which will be termed shoulders, will be subsequently described. A flat pad 4 is fixedly attached to the bottom of the plate 1, and this pad may be formed of cork or other suitable porous and yieldable material to thus provide a yieldable surface against which the sandpaper may be pressed, as will be subsequently described. The means of securing the pad 4 to the bottom of the plate 1 may be by means of suitable adhesive or any other practical and suitable method. A sheet of sandpaper 5 is placed across the bottom of the pad 4, and one end of the sheet of sandpaper is bent upwardly and then downwardly over the shoulder 2, as shown at 6. The other end of the sheet of sandpaper is similarly bent over the shoulder 3, as shown at 7.

An elongated and substantially inverted U-shaped handle 8 is fixedly attached to the upper surface of the plate 1, and this handle extends lengthwise of the plate 1, substantially as shown. The handle 8 is fixedly secured to the plate 1 by means of suitable screws, rivets, bolts, or the like (not shown).

To provide a means of securing the ends 6 and 7 of the sandpaper sheet 5 to the bottom of the hand sander, we provide the following structure: A pair of spring fingers 9 and 10 are fixedly attached at one end to the

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top of the plate 1 by means of appropriate rivets or spot welding, or the like. These fingers are each curved upwardly towards their outer or movable ends, and are then bent downwardly at approximately a right-angle, as shown at 11. These downwardly extending ends of the fingers 9 are positioned at a slight angle to the vertical, as shown at FIGURE 2, and will press outwardly with a spring pressure against the shoulders 6 or 7; thus binding or clamping the ends of the sandpaper sheet between the parts 11 and the shoulders 6 or 7. The spring construction of the fingers 9 and 10 will press the fingers not only outwardly as described above, but also downwardly to a somewhat lesser extent. The spring action of the fingers 9 and 10, however, will effectively hold both ends of the sandpaper sheet while the sander is in use. The center of the fingers 9 and 10 between the downwardly bent parts 11 may be cut away, as shown at 12. The purpose of this structure being to provide a finger hold which is engaged by the workman when lifting the fingers 9 and 10 at the time that the sandpaper sheet 6 is being replaced.

IN OPERATION

The sheet of sandpaper 5 is attached to the bottom of the pad 4 in the following manner: The workman grips the handle 8 and lifts the finger 9 with thumb or the finger of one hand. The sandpaper 5 is then bent over the shoulder 2 or 3, after which the finger 9 is released, which pinches the end of the sandpaper against the shoulder 2 or 3, thus securely holding the sandpaper in position. After one end of the sandpaper is thus fastened to the bottom of the hand sander, the other end of the sandpaper is similarly attached. The sheet of sandpaper is then ready for use and can be moved over the appropriate flat surface to sand the same.

Having described our invention, we claim:

A hand sander comprising a flat metal plate, a pad of yieldable cellular material attached to the bottom surface of said metal plate, a sheet of sandpaper extending over said pad, a handle fixedly attached to said metal plate, a fixed shoulder at each end of said metal plate, said shoulders projecting upwardly, a spring finger fixedly mounted on each end of the metal plate adjacent said shoulders, one end of the spring finger being fixedly attached to said plate and the other end being movable relative to the metal plate, said spring finger being bent downwardly and outwardly to engage one of the shoulders to grip the ends of a sheet of sandpaper between the fingers and the shoulders, said spring finger having a notch therein at its outer end to provide a finger hold when lifting the spring finger.

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