

May 28, 1946.

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2,400,928

BLOCK SANDER

Filed Jan. 5, 1945

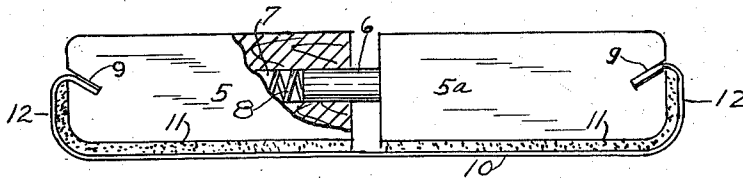


Fig. 1

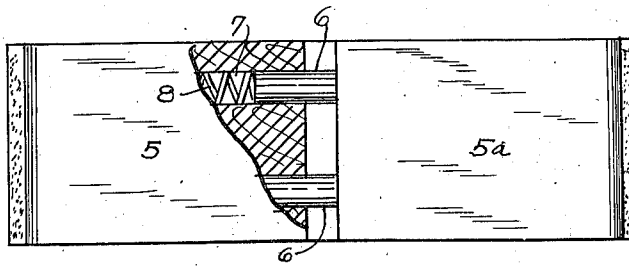


Fig. 2

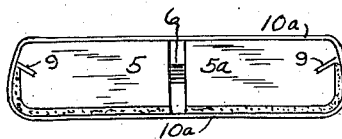


Fig. 3

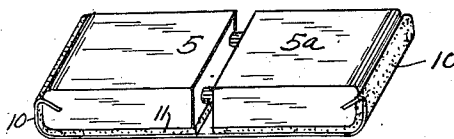


Fig. 4

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2,400,928

BLOCK SANDER

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Application January 5, 1945, Serial No. 571,441

1 Claim. (Cl. 51—187)

This invention relates to improvements in block sanders.

It is the object of this invention to produce a simple and substantial block sander of the type employed for abrading purposes and which shall be provided with means for securing in position thereon a strip of abrading material such as emery cloth or sand paper.

One object of the invention is to produce a sanding block that can be constructed almost entirely of wood or of any other suitable material and which can be manufactured at a comparatively small cost.

Another object of the invention is to produce a sanding block of such construction that it can be used with a strip of sand paper or with a continuous loop.

A further object of the invention is to produce a block sander of such construction that it can be employed in connection with endless strips of abrading material of slightly different lengths.

A still further object of the invention is to produce a block sander of such construction that every portion of the sand paper can be employed usefully before it is discarded.

The above and any 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 side elevation of the improved block sander showing a strip of abradant material secured in place thereon, a portion being broken away and shown in section to better disclose the construction.

Figure 2 is a top plan view of the block sander with portions broken away;

Figure 3 is a side elevation showing the block sander provided with an endless strip of abradant material; and

Figure 4 is an oblique view of the sander shown in Figures 1 and 2.

In the drawing reference numerals 5 and 5a designate two blocks which are preferably made from wood, but which may be made from any other suitable material. These blocks are identical in the construction illustrated, but have been designated by different reference characters because block 5a carries two dowel pins 6, which are adhesively secured to it. Block 5 is provided with two openings 7 which are of the proper size to receive the dowel pins 6. Springs 8 are posi-

tioned in the bottom of the openings 7 and when the dowel pins are inserted into the openings they engage the springs and the latter tend to move them apart. The ends of the blocks are provided with inwardly and downwardly inclined transverse kerfs 9 for the reception of the ends of a strip 10 of abrading material. As above stated, this strip may be a strip of emery cloth or of sand paper or any other abrading material, but will be referred to hereinafter as sand paper. Secured to the bottom and the ends of the blocks 5 and 5a are strips 11 of felt. These strips may be secured to blocks by some suitable adhesive and extend upwardly to positions adjacent the lower edges of the kerfs. The felt strips may be of any suitable thickness and instead of felt it is permissible to employ any other material having similar characteristics such as sponge rubber or soft rubber. The sand paper strip is cut of the proper length so that when the ends are inserted in the kerfs the springs 8 will be compressed, producing a force that tends to hold the sand paper strip firmly in position and to prevent it from sliding longitudinally during the sanding operation.

Since the whole area of the strip, except the small portions that are positioned in the kerfs, is accessible the sand paper can be employed to advantage as the ends 12 are exposed and can be used to great advantage in many positions where the bottom of the block sander would not function properly.

When the sand paper strip has been worn out it can be readily removed by pressing the blocks 5 and 5a towards each other until sufficient slack is secured to enable one end to be removed whereupon the entire strip can be separated from the sander and replaced by another. The spring should be of sufficient strength to hold the strip taut and the kerf should be of a width that fits the sand paper quite snugly so as to prevent it from sliding when tension is applied to it.

In Figure 3 the sand paper strip 10 has been replaced by an endless strip 10a of such length that it encircles the two blocks. The endless strip is held in position by the action of the springs and it can be adjusted step by step so as to bring every portion thereof into operative position and in this way there is no waste so far as the sand paper or other abradant is concerned. From Figure 3 it will be seen that the end surfaces above the kerfs project beyond the end surfaces below the kerfs. The upper kerf surfaces form overhanging abutment walls of a width slightly less than the normal thickness of the

yieldable strip 11. Due to the abutment walls the abradant strip makes a smooth easy bend.

It will also be noted that the abradant strip rests against the substantially rigid top surface of the block material so that an unyielding surface is provided for work for which a yielding abradant surface is unsuited.

Although the blocks 5 and 5a are preferably made from some suitable wood, it is evident that the specific material employed is not controlling and that they may be made from any synthetic or plastic material, or even from metal, without departing from the scope of the invention.

In the drawing the blocks have been shown as having a rectangular cross section, but in the actual construction the edges may be curved in some suitable way so as to give the block sander an ornamental appearance.

Although this device is intended primarily for use with an abradant, such as sand paper or emery cloth, it can also be used for holding a polishing cloth which is preferably applied thereto in the form of an endless band.

Attention is called in particular to that feature of the construction by means of which the sand paper strip is held under tension by the action of the springs which therefore serve the double

purpose of securing the strip to the block sander and of maintaining it under a suitable tension during operation.

Having described the invention what is claimed as new is:

A sander comprising two substantially identical blocks arranged end to end, one of the adjacent ends having two parallel spaced sockets and the other having pins for telescoping engagement in the sockets, coil springs in the sockets in engagement with the ends of the pins, for resiliently urging the blocks apart, the outer ends of the blocks being upwardly curved, a layer of resilient yieldable material secured to the under surface of each block, and to at least a portion of both ends, and an endless band of flexible strip abradant encircling the two blocks forming means for retaining the blocks in assembled relation, the force exerted by the springs tensioning the abradant strip, the entire outer surface of the abradant strip being exposed for use, that part of the strip on the top being in direct engagement with the substantially rigid material of the block that part at the bottom and the ends resting against the surface of the yielding material.

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