June 5, 1951 C. D. TRUSSELL 2,555,946

SANDER

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Fig. 1.

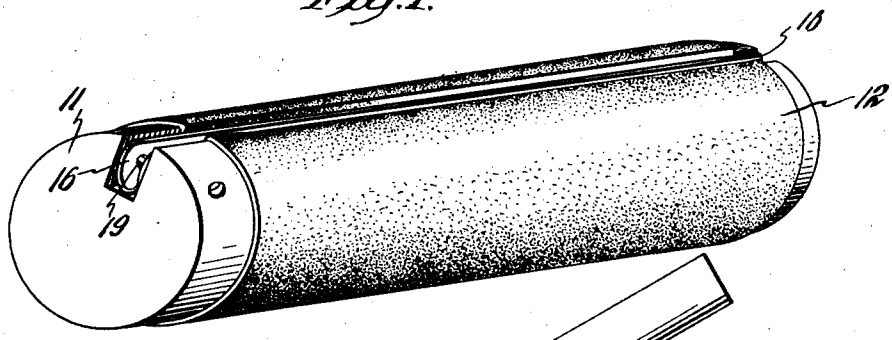


Fig. 2.

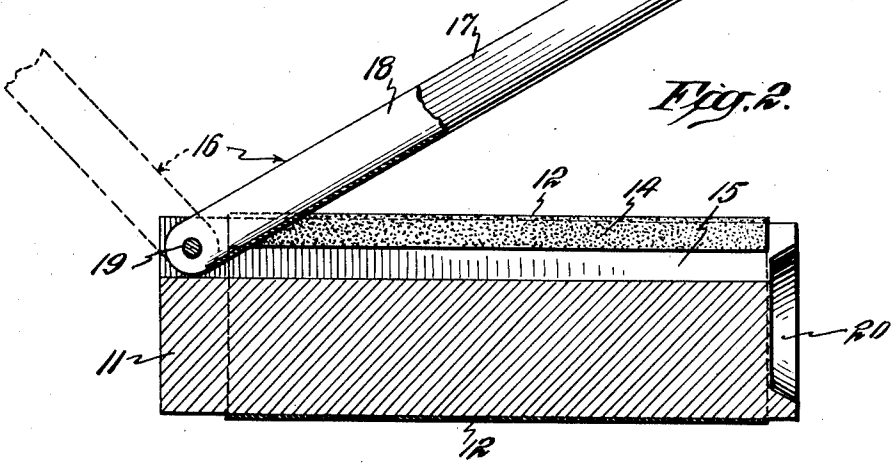


Fig. 3.

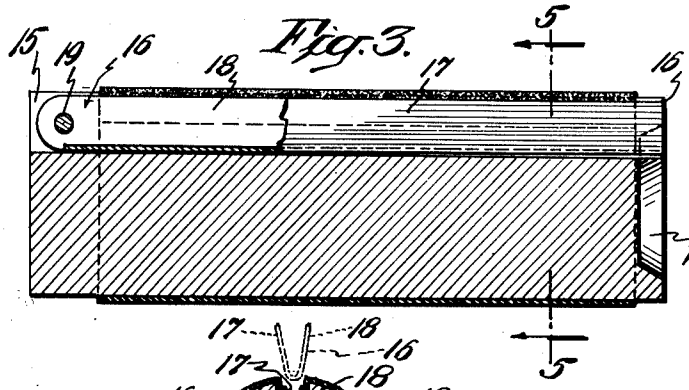


Fig. 4.

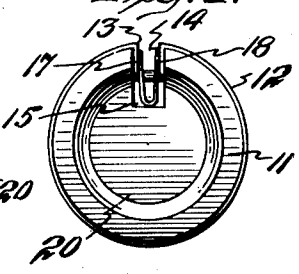
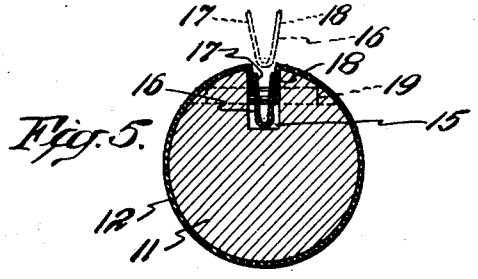


Fig. 5.



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Fig. 6.

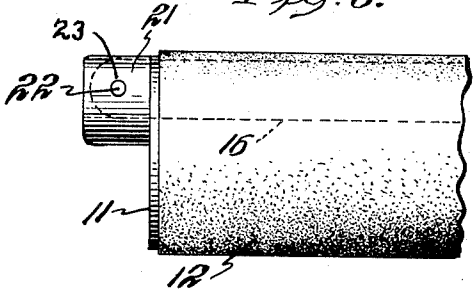


Fig. 7.

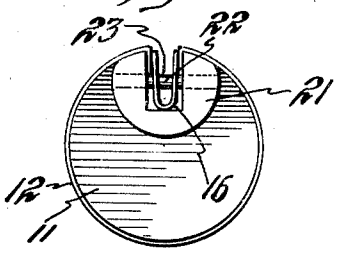


Fig. 8.

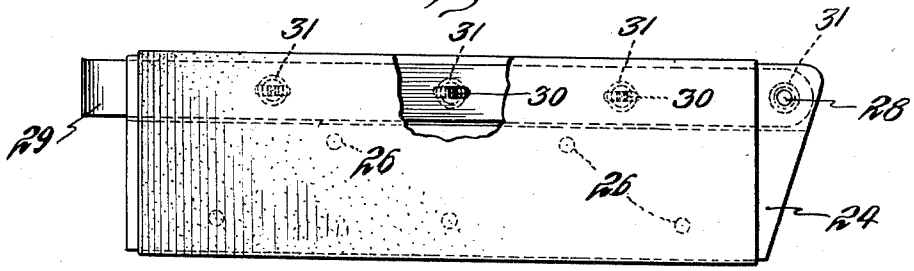


Fig. 10.

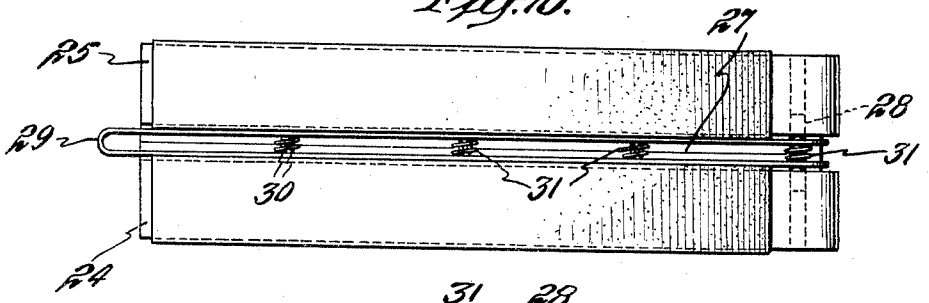
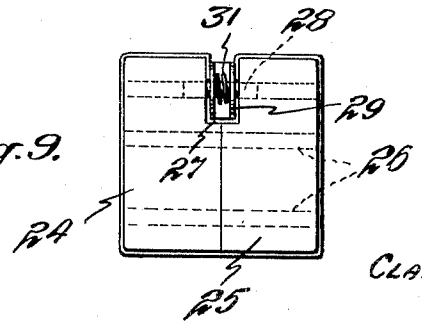


Fig. 9.



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SANDER

Clarence D. Trussell, Turnwood, N. Y.

Application March 4, 1948, Serial No. 12,931

2 Claims. (Cl. 51—187)

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The invention herein disclosed is a device for holding sandpaper.

Special objects of the invention are to provide simple, practical means for holding a sheet of sandpaper in a form in which it can be readily used for sanding and smoothing purposes.

Particular objects of the invention are to provide a holder in which the sandpaper can be readily engaged and firmly held and which will constitute a convenient form of handle for grasping in the hand.

Particular objects also are to provide a device of the character above indicated which will be of low cost, consist of but few parts and be generally practical and desirable.

Other objects of the invention will appear or are set forth in the course of the following specification.

The drawings accompanying and forming part of the specification illustrate certain present practical embodiments of the invention. Actual physical structure, however, may be modified and changed as regards the immediate illustration, all within the true intent and scope of the invention as hereinafter defined and claimed.

Fig. 1 in the drawings is a perspective view of one form of the holder with the sandpaper engaged thereon;

Fig. 2 is a broken longitudinal sectional view of the holder with the clamp lever shown in partly lifted and released position;

Fig. 3 is a broken sectional view with the spring clamp lever in fully engaged and holding position;

Fig. 4 is an end view of the holder;

Fig. 5 is a cross sectional view as on substantially the plane of line 5—5 of Fig. 3, with the clamp bar in its expanded position, before entering the holding slot, shown in broken lines;

Figs. 6 and 7 are broken side and end views, respectively, showing in particular a modified form of hinge mounting for the clamp bar;

Figs. 8 and 9 are side and end views, respectively, of a modified form of the invention, involving in particular a rectangular form of the holder;

Fig. 10 is an edge view of the spring clamp bar shown in the latter form of holder.

Basically the invention comprises a block or form over which the sandpaper is stretched and firmly held and which is of such a shape as to provide a convenient grip for holding in the hand and to give a desired contour to the sandpaper surface.

As first shown, the block 11 is in the form of a cylinder of a length and diameter to be conveniently gripped in the fingers.

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The sandpaper 12 is wrapped about this block, with its ends turned in at 13, 14, into a relatively deep groove 15 running substantially the full length of the block.

A holding bar 16 overlies and secures the in-turned ends of the sandpaper in the groove 15. This bar is shown particularly in Figs. 1 to 5 as comprising a strip of sheet metal folded longitudinally into substantially V-shaped cross section to form two divergent spring wings 17, 18, separated at their free edges sufficiently to bind against the in-turned edges 13, 14, of the sandpaper, when forced down into fully seated position in the groove 15.

This bar may hold in position by its own expansive force, but it is considered preferable to pivotally secure the bar at one end as by means of a cross pin 19 driven through the end of the roll in position to intersect one end of the groove 15.

At the opposite end of the hand grip roll is shown as recessed or countersunk at 20 to accommodate a finger for lifting up the end of the holding bar 16 to free it of the slot and clear it of holding engagement with the in-turned ends of the sandpaper.

With this construction it is simply necessary to bend one end of the sandpaper, insert it in the groove 15, wrap the balance of the paper about the roll and turn in the final edge into the groove, after which the holding lever 16 may be forced down into the groove over the in-turned ends to draw the paper smoothly and firmly about the roll and to secure itself in the fully seated position in the bottom of the groove.

Fig. 5 shows in broken lines how the divergent wings 17, 18, of the holding bar, being wider than the groove or that portion of the groove occupied by the in-turned edges of the sandpaper, will necessarily engage and be compressed by the in-turned edges and so will, of necessity, firmly grip and hold the ends of the sandpaper and hence the body of sandpaper about the roll.

Figs. 6 and 7 show how the pivot mounting for the clamping bar may be a partly cylindrical extension 21 on the end of the hand grip roll, having a center 22 corresponding to the axis of the pivot pin 23, thus to provide ample material for the mounting of this hinge pin.

This is desirable particularly in the case of the roll being made of wood, which by preference it normally would be. While for reasons of economy and availability wood may be gen-

erally preferred, it is contemplated that other materials may be employed for making the body of the holder.

Figs. 8 and 9 illustrate a holder made in substantially square cross sectional form.

In this particular instance the holder is made in two longitudinal sections or halves **24**, **25**, held together by dowel pins **26** or the like. In this case the groove **27** for the clamp bar may be formed partly in the meeting faces of the two block sections **24** and **25** and the pivot pin **28** may be held at its ends in sockets provided for it in the opposing side walls of the groove.

The clamp bar in this instance is shown as an elongated strip of metal doubled upon itself at **29** to form a handle end and having the separated ends engaged over the pivot pin **28**. This strip is shown as having overlying lugs **30** punched out of the opposite sides of the same to position small spreader springs **31** which in bracing the sides apart will serve to apply tension on the ends of the sandpaper gripped by the bar.

While the holder block is shown in Fig. 9 as square in cross section, it will be realized that it may be of other rectangular shape or, as in the first instance, may be cylindrical, oval or other desired rounded or angular shape.

While the sandpaper is quickly engaged and firmly held in position, it can, when desired, be quickly and immediately removed for replacement by a fresh piece or by another piece of different grain.

The device can be produced at low cost and will last indefinitely. It may be made in any size, for example for gripping in either one or both hands.

While the holding block has been shown as of solid material, it is contemplated that this may be of hollow formation, made up, for example, of sheet material, metal or otherwise, folded or rolled to the desired conformation. The bar holding the ends of the sandpaper, by reason of its spring construction, holds itself firmly in place in the groove **15** and yet can be quickly and easily released by lifting the free end of the same. The groove is preferably deep enough to fully receive the bar so that it will not project beyond the surface of the sandpaper when the device is in use.

The constructions disclosed permit the sandpaper to extend the full length of the holder or even extend slightly beyond the end for reaching into corners and small spaces.

What is claimed is:

1. A sander of the character disclosed comprising a block for gripping in the hands and about which a piece of sandpaper may be wrapped, said block having a longitudinally extending groove into which the ends of the wrapped sandpaper may be turned, and a clamp bar seated in said groove over the in-turned ends of the sandpaper for holding the latter in firmly wrapped position about the block, said bar being a transversely folded strip of sheet material with the oppositely folded sides of the same flared apart to yieldingly engage and grip the in-folded ends of the sandpaper, said bar further being of springy material and pivoted at one end in the groove with the folded edge of the same disposed inwardly toward the bottom of the groove to operate as a wedge in entering the groove and to cause the flared free edges of the strip to operate as spring tensioned grips pressing the infolded edges of the sandpaper inwardly as the bar is hinged inwardly into the groove and to then operate as spring retainers resisting outward releasing movement of the bar.

2. A sander of the character disclosed comprising a block composed of longitudinal sections secured together in face to face relation and having at one side of the block the complemental portions of a longitudinal groove formed partly in the meeting faces of the two block sections, a pivot pin extending through said block sections across the groove at one end of the block and a bar spring tensioned to greater width than the width of said groove, pivotally engaged on said pivot pin at one and having its opposite end exposed at the opposite end of the block, said bar having spring expanded sides for yieldingly gripping the ends of a sheet of sandpaper wrapped about the block and turned into the groove formed between the two sections of the block.

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