July 30, 1929. J. R. THOMAS 1,722,359

CLAMP FOR ABRASIVES

Filed March 16, 1927

Fig. 1.

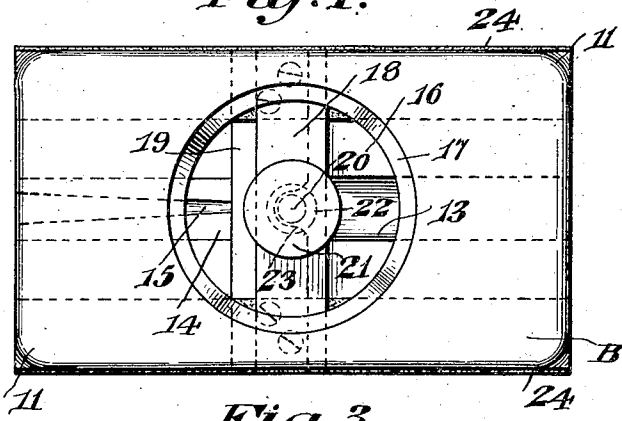


Fig. 2.

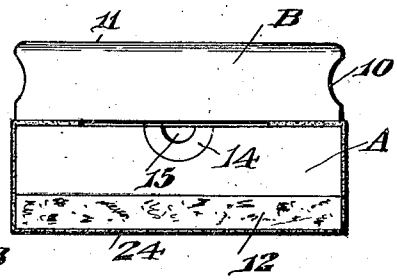


Fig. 3.

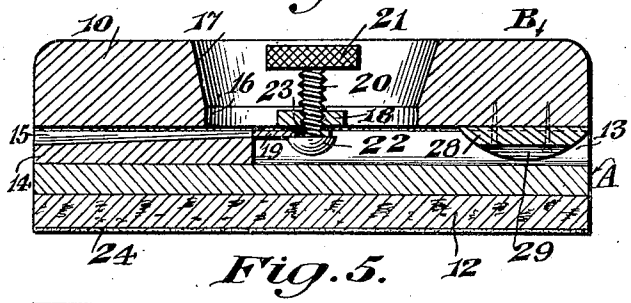


Fig. 4.

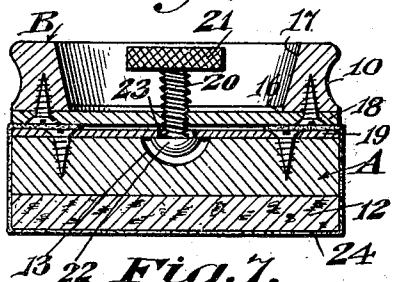


Fig. 5.

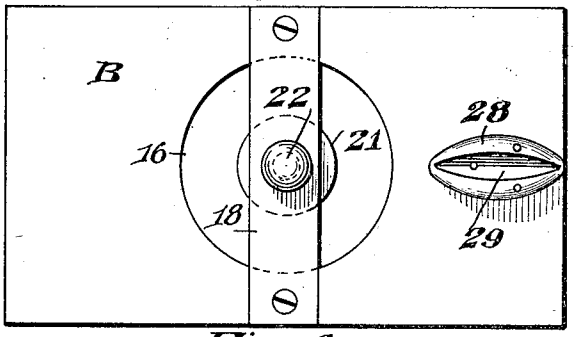


Fig. 7.

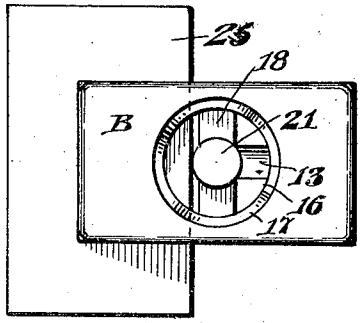


Fig. 6.

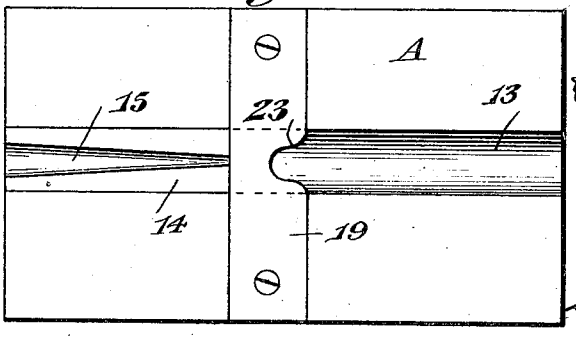
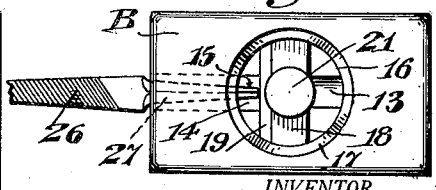


Fig. 8.



INVENTOR.

John R. Thomas,

BY

Geo. P. Kimmel.

ATTORNEY.

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UNITED STATES PATENT OFFICE.

JOHN R. THOMAS, OF WILKES-BARRE, PENNSYLVANIA.

CLAMP FOR ABRASIVES.

Application filed March 16, 1927. Serial No. 175,803.

The invention relates to a hand grip or holder for sandpaper, tools or the like.

The primary object of the invention is the provision of a grip or holder of this character, wherein sheets of sandpaper can be gripped and held or tools clamped therein for the manual manipulation of the same and in the holding of such article, as for example sandpaper, the same can be properly applied to a piece of work for the reducing, smoothing and finishing the surface thereof and likewise, when a tool, for example a file, scraping blade or the like is held it can be properly manipulated with the required degree of application, without liability of injury to the hands of the manipulator.

Another object of the invention is the provision of a grip or holder of this character, wherein the sheet of sandpaper or the like or tool when clamped thereby will be firmly and securely held for the manual manipulation of the same in the execution of any requirement therefor upon a piece of work, the grip or holder being of novel form to permit the application or removal of the paper or tool with dispatch and when applied such paper or tool will be firmly gripped and held for working purposes.

A further object of the invention is the provision of a grip or holder of this character, wherein the construction thereof permits the user to obtain a convenient, firm and required grasp thereof for the proper manipulation of the sandpaper, tool or the like held thereby.

A still further object of the invention is the provision of a grip or holder of this character, which is extremely simple in its construction, readily and easily adjusted for accommodating sandpaper or the like or a tool, possessing but few parts, thus relieving it from disorder, strong, durable, thoroughly reliable and efficient in its purposes, 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 in detail, illustrated in the accompanying drawing, showing the preferred embodiment of the invention, and pointed out in the claims hereunto appended. It is to be understood, however, that changes, variations and modifications may be made, without departing from the spirit of the invention or sacrificing any of its advantages, as come properly within the scope of the claims hereunto appended.

In the accompanying drawing:—

Figure 1 is a top plan view of the grip or holder constructed in accordance with the invention, showing a sheet of sandpaper clamped thereto.

Figure 2 is an end elevation thereof.

Figure 3 is a vertical longitudinal sectional view.

Figure 4 is a vertical transverse sectional view.

Figure 5 is a plan view looking toward the inner face of the top section of the grip or holder.

Figure 6 is a plan view looking toward the inner face of the bottom section of the grip or holder.

Figure 7 is a plan view of the grip or holder showing a scraping blade held therein.

Figure 8 is a plan view showing the grip or holder with a file clamped therein.

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

Referring to the drawing in detail, the grip or holder comprises a lower main body section A and an upper removable and adjustable top section B, these being of substantially similar contour, preferably of rectangular shape and constitute the clamping elements or parts of the grip or holder, hereinafter more fully described.

The upper top section B in opposite longer sides thereof is provided with grooves 10, while the upper corners 11 of said section are rounded and downwardly beveled, the grooves 10 being designed to form finger channels so that the said upper top section B of the grip or holder can be firmly grasped in the hand of a user thereof. The lower body section A has suitably engaged therewith throughout its outer face a cushioning layer 12 preferably made from cork, although it can be made from any other material having inherent elasticity or yieldability. This layer 12 is for a purpose hereinafter described.

Formed centrally of the inner face of the lower body section A and extending longitudinally thereof is the channel or way 13, one end portion thereof having a block insert 14 provided with a central inwardly tapered tool socket 15 which opens through the outer end of said block, the purposes of the channel or way 13 and the socket 15 being hereinafter described.

Formed centrally in the upper top section B is a circular opening 16 having an inwardly beveled marginal wall 17 and spanning this opening 16 at the median thereof is a bridge bar 18 suitably fastened crosswise of the section B at the inner face thereof, the bar being countersunk in the section B so as to have its outer surface flush with the inner face of said section. Spanning the channel or way 13 in the inner face of the body section A intermediate the ends thereof and disposed crosswise or transversely of said section is a keeper bar 19 the same being fastened to the section and countersunk therein so that its outer face will be flush with the inner surface of the section A. Threaded centrally in the bridge bar 18 and accessible through the openings 16 in the upper top section B is a binding screw 20 having an outer knurled head 21 and an inner button-like terminal 22 to coact with the keeper bar 19 on the lower body section A, the said keeper bar being formed with a central notch 23 opening through one side to permit reception therein of the screw 20 when worked inwardly of the bridge bar 18, whereby on super-imposing the section B upon the section A and outwardly turning the screw 20 the terminal 22 will bind and connect the bars 18 and 19 together to detachably fasten said sections A and B in clamping relation to each other.

In the use of the grip or holder for clamping sandpaper, or the like, of the abrasive type the abrasive sheet 24 is stretched across the layer 12 throughout its outer face and then folded upwardly against the opposite longer side of the body section A and finally folded in between the inner faces of said body section A and top section B, whereupon the latter is in a position to have the button-like extremity 22 engage in the notch 23 in the bar 19 and thereafter the screw 20 is worked outwardly to bind and lock the sections A and B together so as to firmly and securely fasten the abrasive sheet 24 to the grip or holder, whereby the abrasive sheet 24 can be utilized for reducing, smoothing and finishing surfaces of wood, metal, stone and the like.

In the use of the grip or holder for clamping a scraping blade 25, reference will be made to Figure 7 of the drawing and this blade is introduced between the inner faces of the sections A and B at one end of the grip or holder and thereafter firmly clamped and likewise said sections clamped together as a unit by the screw 20 in the operation thereof as has been hereinbefore described.

In the use of the grip or holder for a tool, for example a file 26, reference being made to Figure 8 of the drawing, the tapered handle end 27 of the file 26 is inserted to the proper degree into the socket 15, it being understood of course that the sections A and B of the grip or holder are loosened relative to each other and by working the screw 20 the sections A and B will be brought together to firmly clamp the end 27 engaged between said sections and thus retain the file 26 carried by the grip or holder as will be obvious.

On the inner face of the top section B at one end thereof and centrally located is a substantially oval-shaped boss 28 having formed therein longitudinally of the same a substantially V-shaped notch 29 serving as a seat for a tool. This boss 28 will act to guide the top section B onto the body section A as said boss will ride in the channel or groove 13 constituting the way in the inner face of the body section A and also said boss can be utilized for the clamping of a tool in the seat 29 and said way 13 at the end of the grip or holder remote from the socket 15 hereinbefore described.

It will be understood that the cushioning layer 12 on the body section A will permit the proper affecting of the abrasive sheet 24 when carried upon the grip or holder to have the same make true and proper contact with a piece of work when being reduced, smoothed or finished. Also this cushioning layer 12 will assure close contact of the abrasive sheet 24 with work when pressure is applied to the grip or holder as will be clearly apparent.

From the foregoing it is thought that the construction and manner of use of the grip or holder will be clearly understood and therefore a more extended explanation has been omitted.

What is claimed is:—

1. In a holder of the character described, a pair of members for detachably mounting in superposed relation, one of the members having its inner face provided with a longitudinal groove, a block removably seated in the groove and provided in its exposed longitudinal face with a groove tapering toward the inner end of the block, the other member having a portion of its inner face in contact with the block, with the members in assembled relation, and means disposed inwardly of the inner end of the block for forcibly pressing the inner faces of the members toward each other.

2. In a holder of the character described, a pair of members having flat contacting faces, one of the members having in its contacting face a centrally disposed longitudinal groove, a grooved member positioned in the groove to coact with said pair of members to hold a tool therebetween, and clamping means disposed inwardly of the grooved member to hold said pair of members in assembled relation.

In testimony whereof, I affix my signature hereto.

JOHN R. THOMAS.