

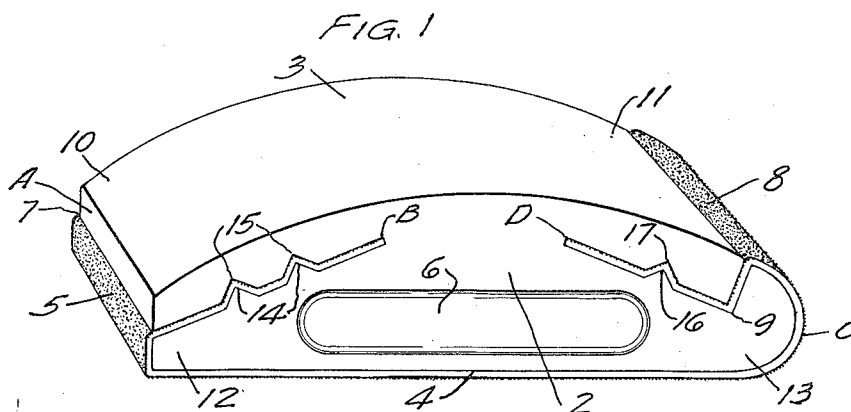
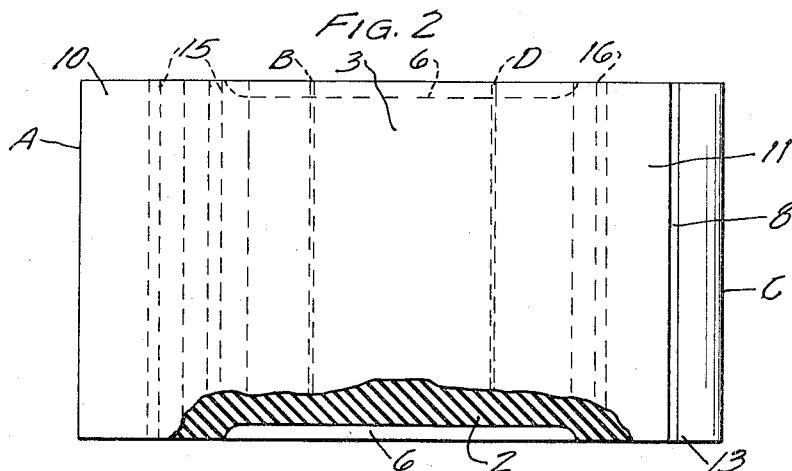
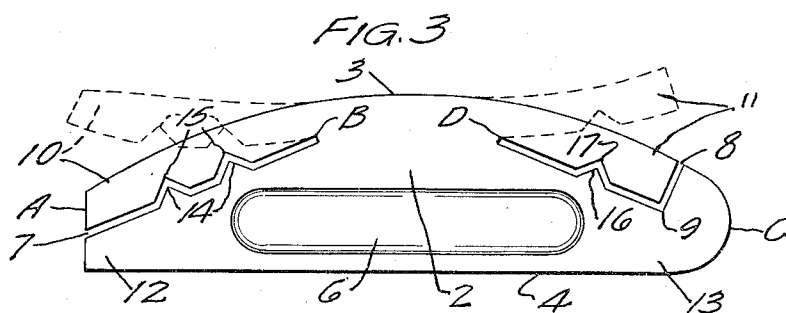
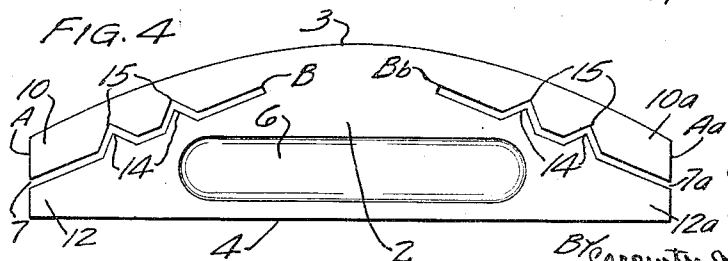
Oct. 9, 1956

G. A. SALMON ET AL

2,765,593

SANDING BLOCK

Filed Dec. 17, 1953



INVENTORS

GILMORE A. SALMON

EMIL D. PETERSON

BY *Carpenter, Abbott, Coulter & Kinney*

ATTORNEY

1

2,765,593

SANDING BLOCK

Gilmore A. Salmon and Emil D. Peterson, St. Paul, Minn., assignors to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware

Application December 17, 1953, Serial No. 398,816

2 Claims. (Cl. 51—187)

This invention relates to an improved resilient block for holding and supporting a strip of coated abrasive sheet material during hand-sanding operations therewith, and is an improvement over the block disclosed in McKnight United States Patent No. 1,599,906, granted September 14, 1926.

The block of the present invention differs, inter alia, from the McKnight block above identified, in the means by which the abrasive strip is held upon the working position upon the block. One embodiment of the block also differs importantly from the prior block in providing a rounded end surface over which the abrasive sheet lies, whereby concave areas, etc. of a workpiece may be more easily reached for polishing or smoothing.

Referring now to the accompanying drawings, in which like reference characters indicate like or similar parts,

Figure 1 is a perspective view of the block with a strip of abrasive coated sheet material mounted thereon.

Figure 2 is a plan view of the block of Figure 1.

Figure 3 is a side elevational view of the block.

Figure 4 is a side elevational view of a different embodiment of the invention, wherein both ends of the block are constructed in the same manner; i. e., like the left end of the block of Figures 1-3.

Referring now more particularly to the drawings, reference character 2 indicates a body of resilient material (e. g., rubber), the upper surface 3 of which is curved to fit conveniently into the palm of one's hand. The bottom surface 4 of said body, over which abrasive strip 5 is held, is flat, or substantially flat, in order that said sheet 5 may be pressed into even abrading contact with the piece being worked upon. Each side surface of the block is provided with a groove 6 by means of which the block may be more firmly grasped.

End surface A of body 2 is horizontally bisected by slit 7, which extends interiorly of the block to a point B, short of the middle of said body 2. Although the plane of slit 7, as shown, inclines upwardly as it extends inwardly, such inclined plane is not critical, and slit 7 could operably extend on a plane parallel to bottom surface 4.

In the embodiment of the block shown in Figures 1-3, end C thereof is vertically curved to provide a rounded end surface useful for reaching areas of the workpiece which would be hard to get at only with end surface A. In this "round-end" form of block, slit 8 is cut downwardly from top surface 3 and thence extends inwardly of the block to point D therein. The initial, downward portion of slit 8 can conveniently comprise a radius of curved surface 3, but this is not essential. While it has been found advantageous to provide for the formation of a right angle 9 at the juncture of the initial portion end inwardly extending portion of slit 8, this again is not critical.

In Figures 1-3, slits 7 and 8 serve to divide the ends of body 2 into upper portions 10 and 11 and lower portions 12 and 13. As shown particularly in Figure 3, upper portions 10 and 11 form flexible tongues which

2

can be lifted upwardly for the insertion of the ends of abrasive strip 5 into slits 7 and 8. As will be apparent, when the block is in use, and held in the workman's palm, pressure on surface 3, necessarily applied during the abrading operation, will function to maintain said upper portions 10 and 11 in firm gripping contact with sheet 5.

The upper surface of lower end portion 12 is provided with ridges 14 extending continuously across the surface of the block. While in the block illustrated, two such ridges are shown on portion 12, it will be apparent that a larger number could be employed and, also, a satisfactory holding function is obtained though only one ridge is used. Said ridges are formed of the same resilient material as the block itself and are integral therewith.

Recesses 15, complementary in shape to ridges 14, are formed on the lower surface of upper end portion 10. When the tip of strip 5 is placed in abutment against point B, and the length of said strip is brought outwardly along slit 7, said strip will be caused to conform to the uneven surface of said slit and be firmly held in place when hand pressure is applied on surface 3.

Slit 8 is similarly provided with ridge 16 and complementary recess 17 for holding the other end of strip 5. As will be noted, particularly from Figure 1, the block-end nearest slit 8 is of rounded configuration, and slit 8, rather than bisecting that block-end is first cut inwardly from the top surface 3 of body 2. By reason of this arrangement, strip 5, when mounted on the block, completely covers end C thereof and provides a curved abrading surface useful for particular sanding operations.

In the form of block particularly shown in Figure 4, each end of the block has been slit in the same manner; i. e., in the manner of slit 7 above described. The parts of reference character 7a, 10a, 12a, Aa and Bb in Figure 4 all correspond in construction and operation to parts 7, 10, 12, A and B of Figures 1-3.

In order to insert abrasive sheet 5 into the block of either Figures 1-3 or Figure 4, one of the tongues 10, 10a or 11 is bent upwardly (as shown in broken lines in Figures 3) and one end of the abrasive sheet is then inserted in the slit adjacent said tongue. The tongue is then released and slight pressure applied to the upper surface 3 of the block in order to cause sheet 5 to conform to the surface of the slit. The sheet is then brought over bottom surface 4 of the block and while maintaining said sheet under tension the opposite end of the sheet is inserted in the opposed slit and pressure is then again applied to the top surface of the block.

What we claim is:

1. An implement for holding a strip of flexible, abrasive-coated sheet material comprising a resilient block having a top surface, a first end surface, a second end surface and a flat bottom surface, said block having a slit extending inwardly from said first end surface, a slit disposed toward said second end surface and first extending downwardly from said top surface and thence inwardly away from said second end surface, each of said slits dividing an end portion of said block into a lower part and an upper part, each of said lower parts being provided with at least one continuous ridge extending transversely of the block, the lower surfaces of said upper parts being provided with complementary recesses located in register with said ridges.

2. An implement for holding a strip of flexible abrasive-coated sheet material, comprising a resilient block having a top surface, a rounded end surface, a flat end surface, and a flat bottom surface, said block having a first slide extending inwardly from said flat end surface, a second slit disposed toward said rounded end surface and extending downwardly from said top surface and thence inwardly of the block, each of said slits dividing an end portion of the block into a lower part and an upper

3

part, each of said lower parts being provided with a continuous ridge extending transversely of the block, the lower surface of each of said upper parts being provided with a complementary depression located in register with said ridge.

5

1,562,414
1,599,906
1,724,661
2,411,615
2,435,335
2,459,893

4

McKnight ----- Nov. 17, 1925
McKnight ----- Sept. 14, 1926
Johnson ----- Aug. 13, 1929
Dodelin ----- Nov. 26, 1946
Andrews ----- Feb. 3, 1948
Peterson ----- Jan. 25, 1949

References Cited in the file of this patent

UNITED STATES PATENTS

840,982 Williams ----- Jan. 8, 1907 **10**