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J. M. GAUSS

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RUBBING BLOCK

Filed May 22, 1930

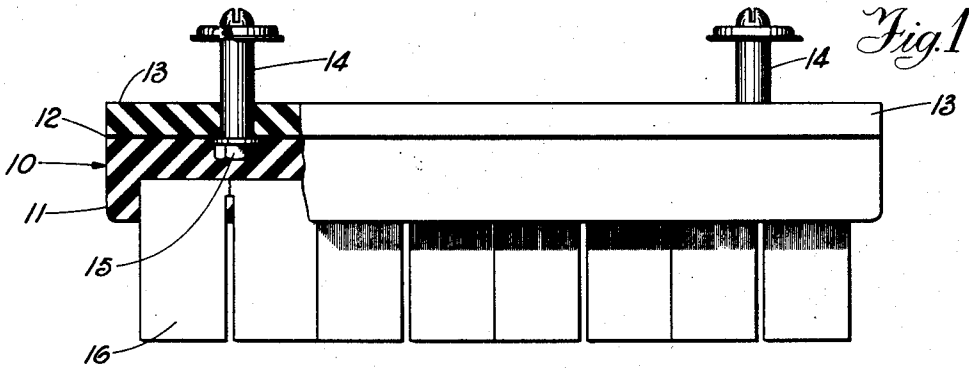


Fig. 1

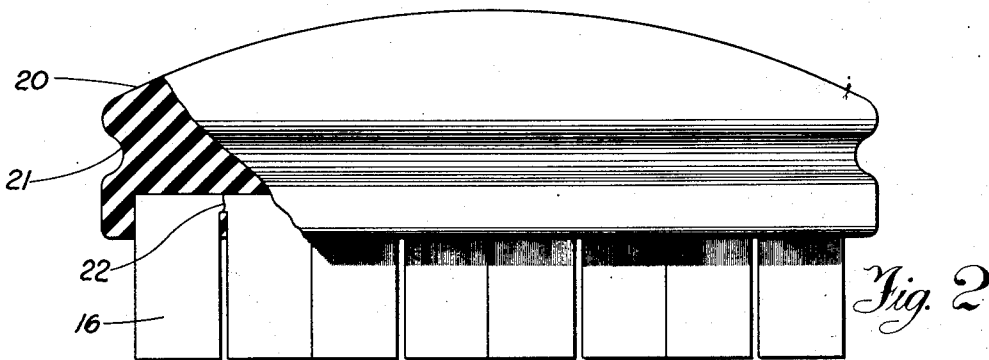


Fig. 2

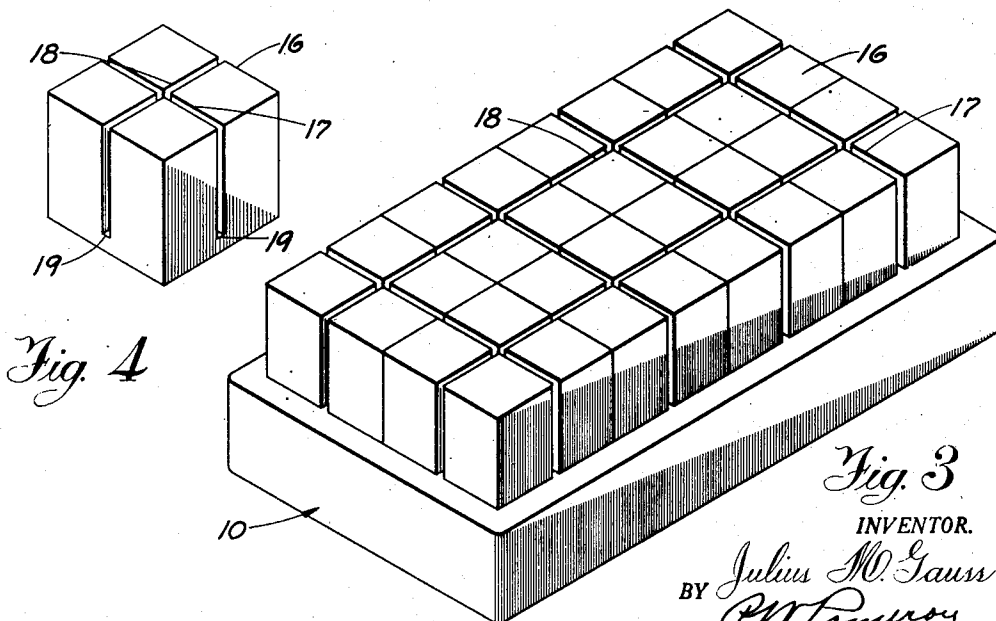


Fig. 4

Fig. 3

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RUBBING BLOCK

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This invention relates to rubbing blocks and particularly to blocks for finishing automobile bodies and the like.

The principal object of my invention is to provide a rubbing block comprising a resilient base having a plurality of abrasive members secured therein adapted to have limited movement to conform with slightly irregular surfaces.

A further object is to provide a rubber base having a plurality of abrasive members vulcanized therein, the abrasive members being slotted and then broken at the connecting webs after being vulcanized to the base.

Further objects and objects relating to details of construction and manufacture will be apparent from the detailed description to follow, and then claimed, having the above and other objects in view.

In the drawing which shows a suitable embodiment of my present invention,

Figure 1 is a side elevation of the rubbing block, a portion of the base being broken away, and in section, to better show the invention.

Figure 2 is a view corresponding with Figure 1, showing a slightly modified form of base.

Figure 3 is an inverted perspective view of the device shown in Figure 1.

Figure 4 is a perspective view of one of the abrasive members illustrated in the preceding views.

In the rubbing of automobile bodies and the like, it has been customary to use a plurality of abrasive members tied together with a string or tape which are held in the hand of the workman for finishing the object.

These rubbing blocks are not entirely satisfactory because great skill and care must be used in handling them to prevent one or more of the blocks from slipping out of place which, of course, would interfere with the work. In the present invention, a rubbing block is provided which has all of the advantages of the devices heretofore used but which eliminates the disadvantages inherent therein so that the rubbing block can be used

by those who are not so skilled in the art of

finishing metal objects and the like with equally as good results.

In the accompanying drawing in which like numerals refer to like parts throughout the several views, I have shown in Figure 1 a resilient base 10 having a cup-shaped portion 11 to which is vulcanized, or otherwise secured, a thin metal plate 12 over which is positioned and preferably vulcanized thereto a finishing piece 13. Bolts 14 having their heads 15 within the member 11 extend through the metal plate 12 and the cap 13 for attaching the rubbing block to a vibrating machine not shown.

Abrasive members 16 which may be natural sandstone, artificial sandstone, or any other suitable material, are seated within the cup-shaped base 11, these members preferably being rectangular in form so that they can be seated against each other in face to face contact to form the complete structure as shown in Figure 3. Each abrasive member 16 is preferably slotted in one direction at 17 and in the opposite direction at 18, as shown in Figures 3 and 4, the slots extending nearly through these members so as to leave relatively thin connecting webs 19. After the blocks 16 are stacked in assembled position, they are put in a mold, the base is vulcanized thereto and if desired, the rubber is filled in the slots 17 and 18, as shown in Figures 1 and 2, to form a complete bond for these members to hold them securely to the base.

In Figure 2, I have shown a rubber base 20 having a convex upper surface adapted to fit the palm of the hand and having a recess 21 formed around the edge thereof which may be gripped by the fingers so that the rubbing block may be easily handled. The abrasive members 16 which may be of any of the materials heretofore described, are secured in the rubber base 20 in the same manner as they are secured in the rubber base 11, the difference in shape of the respective bases being merely for convenience in attaching the rubbing block to a machine or for hand use.

After the abrasive members 16 are vul-

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canized to the base 11 or 20, the respective abrasive members are preferably hit with a hammer or other suitable instrument whereby the webs 19 are broken as at 22, as shown in Figures 1 and 2, so that the rubbing block comprises a large plurality of small abrasive pieces, firmly secured to the base member.

As the material to be finished oftentimes has slight irregularities therein and as it is desirable to have the rubbing block conform with those irregularities, it is desirable to use as small pieces as is practical so that the respective pieces will conform to the contour of the object to be finished. In the present invention, the abrasive members are vulcanized to the base member so that there is no danger of any of the small abrasive members becoming dislodged or slipping out of place and at the same time, the backing is sufficiently resilient so that each of the abrasive members will readily conform with the irregular surface to be finished so as to smooth out any low spots which may be present therein.

While I have illustrated one embodiment of the present invention, it will be understood that formal changes and changes relating to details in construction and manufacture will be apparent to those skilled in the art from my disclosure and description of the invention, and I therefore do not wish to limit my invention to the exact details shown but on the contrary desire to claim the invention broadly as well as specifically as is indicated in the appended claims.

What I claim is:

1. A rubbing block comprising, a cup-shaped resilient base, a plurality of slotted abrasive members positioned therein in face to face contact, and means within said slots for securing said members to said base.

2. A rubbing block comprising, a rubber base and a plurality of slotted abrasive members vulcanized thereto in face to face contact, the webs at the ends of said slots being broken after said members are vulcanized to said base.

3. A rubbing block comprising, a rubber base and a plurality of slotted abrasive members having their bases vulcanized thereto and having a rubber bond extending through said slots.

4. A rubbing block comprising, a rubber base and a plurality of abrasive members vulcanized thereto in face to face contact, said members being slotted and bonded to said base within said slots.

5. A rubbing block comprising, a rubber base, a plurality of abrasive members having a plurality of slots extending through each member bonded to said base, and a rubber bond extending through said slots.

6. A rubbing block comprising, a resilient base, a plurality of abrasive members having slots extending in perpendicular directions through each member, and a resilient

bond extending through said slots connected with said base.

7. The method of forming rubbing blocks comprising the slotting of abrasive members, arranging said members in rows, and vulcanizing a rubber base thereto.

8. The method of forming rubbing blocks comprising the slotting of abrasive members, arranging said members in rows, vulcanizing said members to a rubber base, and breaking the webs at the ends of said slots after said members are vulcanized to said base.

9. The method of forming rubbing blocks comprising, the slotting of abrasive members, arranging said members in rows, securing said members to a base, and breaking the webs at the ends of said slots after said members are secured to said base.

Signed by me at South Bend, Indiana, this 16th day of May, 1930.

JULIUS M. GAUSS.