Jan. 5, 1937. L. J. REYSA 2,066,420

CLEANING DEVICE

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Fig 1

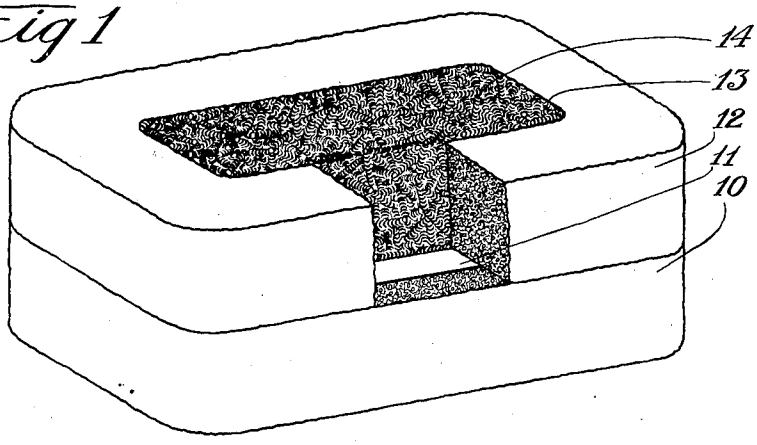


Fig 2

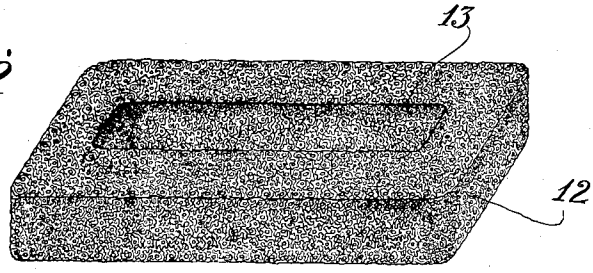


Fig 3

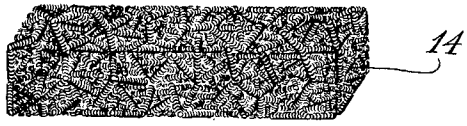
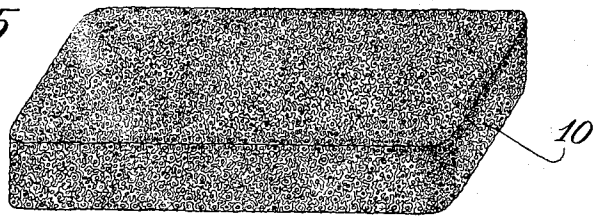


Fig 4



Fig 5



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Fig 6

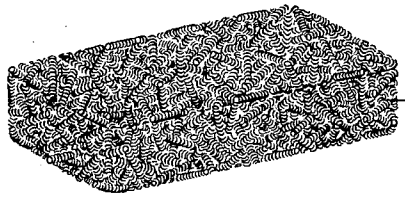


Fig 7

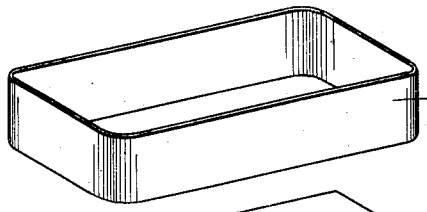


Fig 8

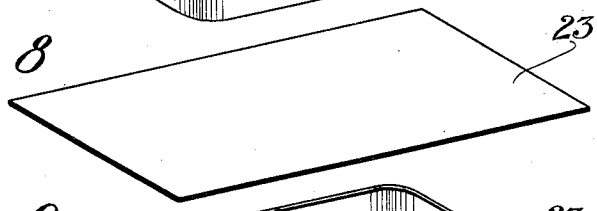


Fig 9

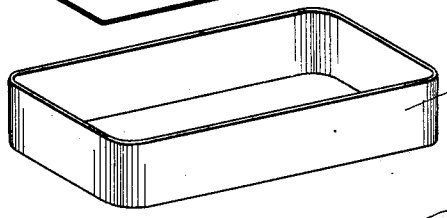
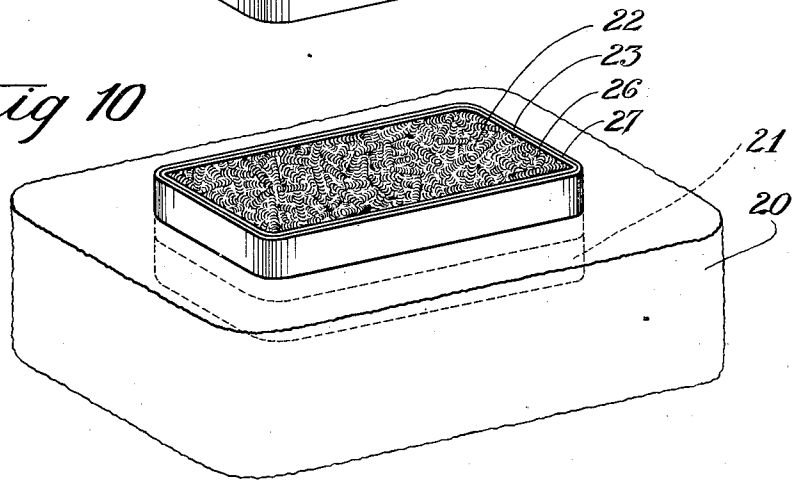


Fig 10



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Patented Jan. 5, 1937 2,066,420

UNITED STATES PATENT OFFICE

2,066,420

CLEANING DEVICE

Lester J. Reysa, Cedar Rapids, Iowa

Application February 9, 1935, Serial No. 5,773

3 Claims. (Cl. 15—118)

My invention relates to a cleaning device and has particular relation to a device having in combination a scouring or cutting means and a liquid supply carrying and extruding means.

This invention is concerned with a cleaning device comprising in combination absorbent material such as sponge rubber and the like and metallic materials such as coiled flattened wire or metallic shavings. The present invention is concerned more particularly with modifications of the structures and methods of manufacture of devices of this character. The devices are more particularly described in my copending application #740,614 filed August 20, 1934, and entitled Cleaning device.

A general object of my invention is to provide a new and improved cleaning instrumentality which will both clean and scour a surface and wash the material from the surface in one operation.

Another object of my invention is to provide new and improved methods of manufacture of such devices.

Other and further features and objects of the invention will be more apparent to those skilled in the art upon a consideration of the accompanying drawings and following specification, wherein are disclosed exemplary embodiments of the invention with the understanding, however, that such changes may be made therein as fall within the scope of the appended claims without departing from the spirit of the invention. The device may be used or adapted for use for other purposes.

In said drawings:

Figure 1 is a view in perspective of an improved device constructed according to one embodiment of my invention.

Figures 2 to 5 inclusive are views in perspective of the component parts of the structure shown in Figure 1.

Figures 6 to 9 inclusive are views in perspective showing the component parts of the structure and of means for assembling the structure shown in Figure 10; and

Figure 10 is a view in perspective of a modified form of the device as it is being assembled.

Referring now more particularly to Figure 1, there is shown a built up sponge comprised of a substantially rectangular pad 10 of sponge rubber or the like, a rectangular sheet of fabric 11 such as cotton cloth or like material to the faces of which adhesive material has been applied, an upper pad 12 also of sponge rubber of the like and having a rectangular opening 13 therethrough and a filler 14 of coiled flattened bronze alloy, wire or metallic shavings. The component parts of the sponge, shown in Figure 1, are illustrated in exploded relation in Figures 2 to 5 inclusive.

The device, shown in Figure 1, is assembled by applying rubber cement or the like to the upper face of the lower pad 10 and the lower face of the upper pad 12 and to both faces of the rectangular sheet 11, placing the rectangular sheet 11 on the lower pad 10 and the upper pad 12 upon the rectangular sheet 11 and lower pad 10, and pressing these parts together until the cement has dried, then filling the rectangular opening 13 with a mass of coiled wire 14, and then stitching the wire to the sheet 11 by means of thread or like material. A sponge so constructed is really comprised of four parts united into one structure and the built up structure will be found to be permanently combined in a unitary article which will last almost indefinitely.

The structure shown in Figure 10 is comprised of a single cut or molded sheet of porous material 20, such as sponge rubber or the like, having a substantially rectangular recess 21 in the upper face thereof and a filler 22 of flattened coiled wire or metal shavings indicated at 22, the filler 22 being placed in a sort of tray formed by the sheet of fabric 23.

The device shown in Figure 10 is assembled by the use of rings or hoops 26 and 27 which act substantially in the same manner as embroidery hoops to hold the sheet 23 in place while the device is being assembled.

In assembling the device shown in Figure 10 the sheet of fabric 23 is placed on the top of the hoop 27. The hoop 26, which is slightly smaller dimension than the hoop 27, is pressed down against the fabric sheet 23 and into the hoop 27. This forms, in effect, a small box with the nested hoops 26 and 27 as the sides and the sheet fabric 23, with its edges engaged between the hoops, as the bottom.

The box is then filled with the filler of coiled flattened wire and the wire is secured to the fabric 23 by stitching the wire to the fabric. The box with its filler 22 is then forced into the pad 20 illustrated in Figure 10, the bottom and sides of the recess 21 having previously been coated with rubber cement or the like. When the box has been forced entirely into the recess 21 the inner hoop 26 is removed thus freeing the fabric. The outer ring or hoop 27 is then removed and the filler 22 pressed firmly into the pad 20 to cause the sheet material 23 to become glued to

the inner wall and bottom of the recess 21 of the pad 20. After the cement is set the pressure is removed and it will be found that a sponge of combined sponge rubber and coiled flattened wire has been formed which will last almost indefinitely.

It is apparent that modifications of my invention may be made by those skilled in the art. Such modifications may be made without departing from the spirit and scope of my invention as set forth in the appended claims.

I claim as my invention:

1. A sponge comprised of a sheet of porous material, another sheet of porous material having an opening therein secured to the first sheet of material, a sheet of fabric between the two sheets, and a filler of metallic material secured to the fabric sheet within the opening of the second sheet.

2. A sponge comprised of a pad of porous material having a recess in one face thereof, a lining of fabric within the recess and a filler of metallic material secured within the recess.

3. A sponge comprised of a pad of porous material having a recess in one face thereof, a lining of fabric within the recess, and a filler of metallic material secured to the fabric lining and within the recess.

LESTER J. REYSA.