Dec. 31, 1929. O. S. CASE 1,741,223

CLEANING AND SCOURING DEVICE

Filed Nov. 10, 1928

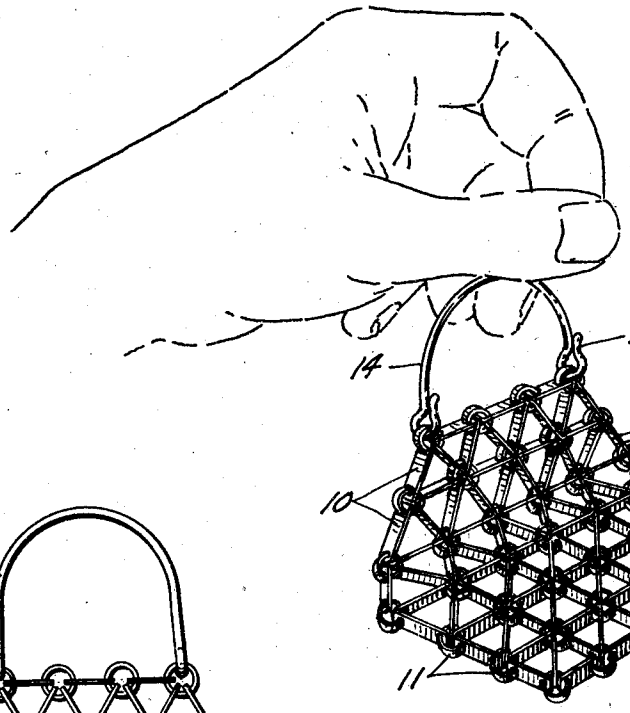


Fig. 1

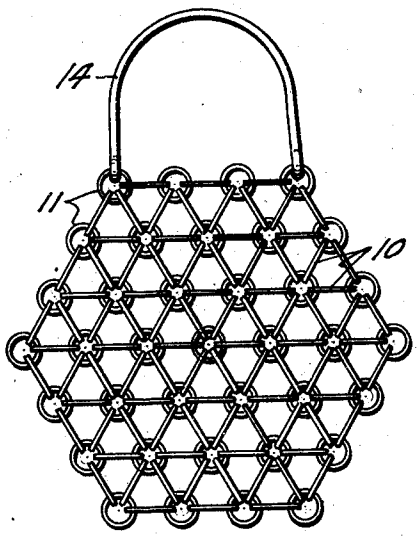


Fig. 2

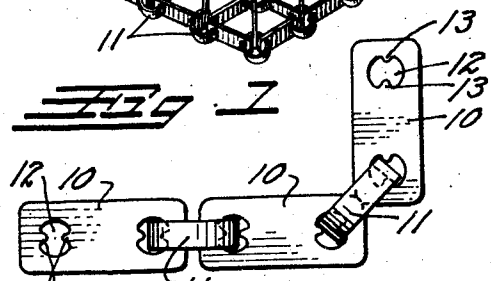


Fig. 3

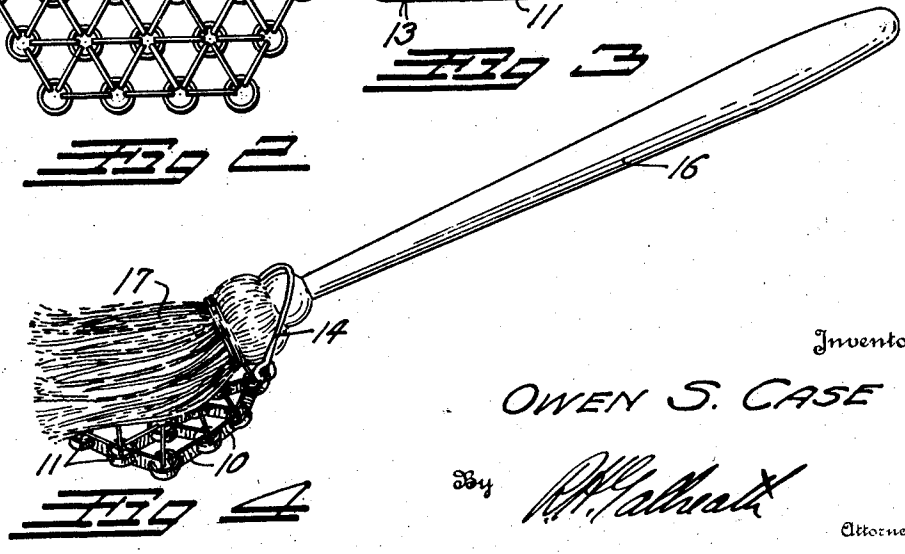


Fig. 4

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UNITED STATES PATENT OFFICE

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CLEANING AND SCOURING DEVICE

Application filed November 10, 1928. Serial No. 318,322.

This invention relates to a cleaning and scouring device of the type adaptable for use in cleaning pots, pans, kitchen ware, etc. It is, however, not limited to this use since it will find valuable application in many other uses, such as in removing varnish, paint and other surface material.

The principal object of the invention is to provide a flexible pad or fabric which will present a surface of blade-like edges to the article being cleaned, each individual edge acting as a knife or scraper.

Another object of the invention is to secure together a series of blade-like members in such a way that they will always stand uprightly and so that they can not become overlapped or collapsed, but will always maintain their original design or form.

A further object is to provide a mat or fabric of linked, rigid, blade-like members which will be flexible so as to conform to the contour of the surface being cleaned.

A still further object is to so construct the blade-like fabric that it can be attached to, and used in connection with, the ordinary dish mop.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

Fig. 1 is a perspective view illustrating the flexibility of my improved cleaning and scouring device.

Fig. 2 is a plan view thereof.

Fig. 3 is an enlarged detail view illustrating the detail construction of the device.

Fig. 4 is a perspective view illustrating my improved cleaning and scouring device combined with a dish mop.

The invention comprises, preferably but not necessarily, a hexagonally-shaped mat or fabric consisting of a series of similarly shaped blades 10, flexibly secured together by means of rings 11. The rings 11 comprise narrow tubular bands of rigid material which are passed through openings 12 formed adjacent each extremity of each of the blades 10.

The design or outline of the mat or fabric may be varied, as desired, to any form adapted to a series of triangles, of which, the mat design is composed.

The unusual efficiency of the device depends upon maintaining the blades 10 always substantially vertical to the surface being cleaned. This is accomplished without affecting the flexibility of the article by means of the unusual shape of the openings 12.

Each of the openings 12 is formed somewhat in the shape of a figure 8, that is, each opening has two opposite, inwardly extending projections 13 which substantially contact with inner and outer faces of the rings 11. The projections 13 allow a limited arcuate movement of the rings within the openings 12, as illustrated in Fig. 3, but prevent the rings from being turned at right angles to or backward upon the blades.

It has been found by experiment that if the projections 13 are eliminated and the openings 12 formed simply as round holes, the rings 10 have an unlimited arc of movement and fold back upon the blades allowing adjacent series of blades to collapse upon each other thus destroying the entire structure of the device and making it impossible to retain the original design or form. By providing the projections 13, however, the rings are limited to substantially a 45° movement. This allows substantially a 90° movement between adjacent blades and complete flexibility throughout the entire device and yet at all times the blades are maintained perpendicular to the two faces of the fabric.

In use, the pad or fabric is held against the article to be cleaned by the hand, and is rubbed over the surface thereof. The edges of the blades 10 are thus presented to the surface of the article as a multitude of small knives or scrapers. As the device is moved

over this surface the blades travel at a plurality of different angles and exert a highly efficient cleaning and scouring action.

The efficiency of the article is undiminished by constant use since wear on the blades does not in any way impair their effectiveness.

A wire loop 14 is provided which terminates in loops or hooks 15 by means of which it may be attached to two of the corner or terminal rings 11.

A method of using the invention is illustrated in Fig. 4, in which it is applied to a dish mop 17 having a handle 16. This arrangement is useful for cleaning pots and pans in hot soapy water without necessitating the operator's hands being placed in the water. The invention is applied to the mop 17 by passing its handle 16 through the loop 14 so that the blade-like fabric will lie between the mop and the article being cleaned. The mop can then be used in place of the hand to press the fabric against the article.

While a specific form of the invention has been described and illustrated herein, it is desired to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what I claim and desire secured by Letters Patent is:—

1. A cleaning and scouring device comprising: a series of flat, substantially rectangular, blade members having openings formed adjacent their extremities; and a series of cylindrical rings of narrow flat material passing through said openings so as to secure said blade members in a series of triangles into a flat fabric, said members extending uprightly in said fabric so as to present their edges to the surfaces thereof; projections extending inwardly into said openings substantially into contact with the inner and outer surfaces of said rings so as to limit the arcuate movement of said rings within said openings.

2. A cleaning and scouring device comprising: a series of flat, substantially rectangular, blade members having openings formed adjacent their extremities; and a series of cylindrical bands of narrow flat material passing through said openings to secure said blade members in a series of triangles into a flat fabric, means to maintain said members uprightly in said fabric so as to present their edges to the surfaces thereof; and a wire loop secured to external bands in said series and projecting beyond said fabric.

3. A cleaning and scouring device comprising: a series of elongated flat thin blades provided with openings adjacent their extremities; and a series of narrow cylindrical bands securing said blades together through said openings to form a fabric, means to maintain the width of both said bands and said blades uprightly in said fabric, said fabric comprising a series of triangles, each side of each triangle consisting of one of said blades.

4. A cleaning and scouring device comprising: a series of flat, substantially rectangular, blade members having openings formed adjacent their extremities; and a series of cylindrical bands of narrow flat material passing through said openings to secure said blade members in a series of triangles into a flat fabric, means to maintain said members uprightly in said fabric so as to present their edges to the surfaces thereof.

In testimony whereof, I affix my signature.

OWEN S. CASE.