No. 768,554. PATENTED AUG. 23, 1904.

S. J. BALLARD.

BRUSH.

APPLICATION FILED DEC. 14, 1903.

NO MODEL.

Fig. 1.

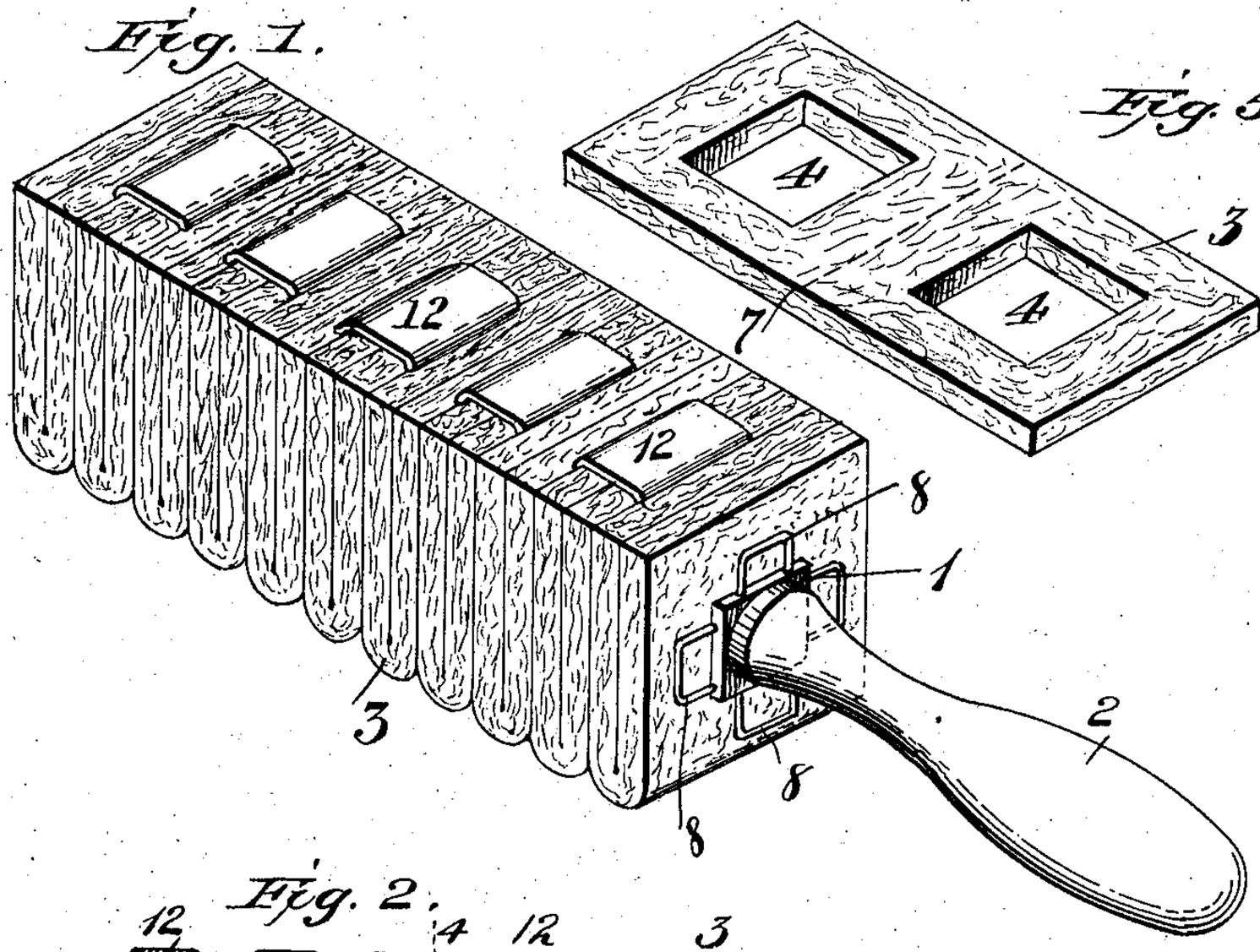


Fig. 5.

Fig. 2.

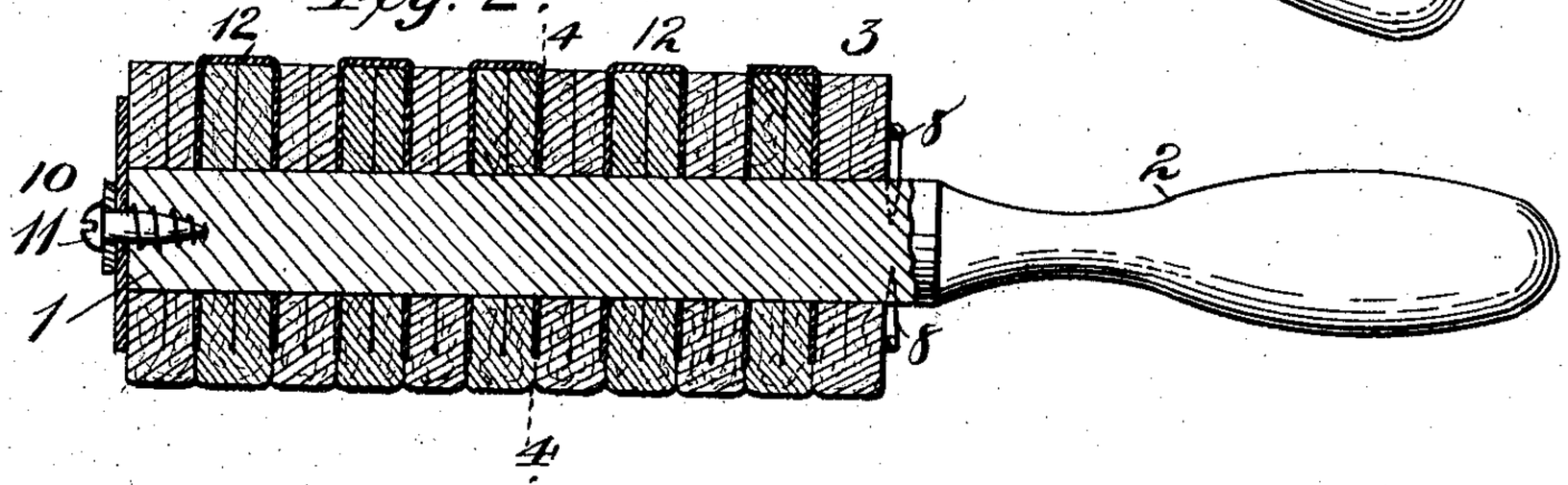


Fig. 3.

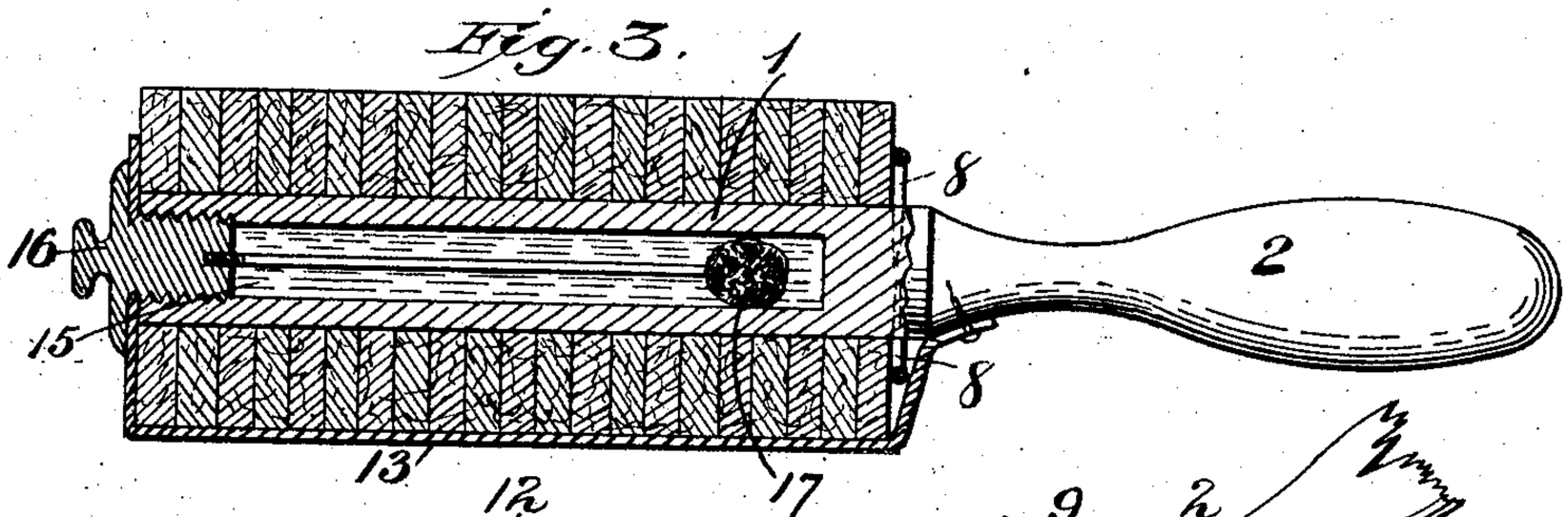


Fig. 4.

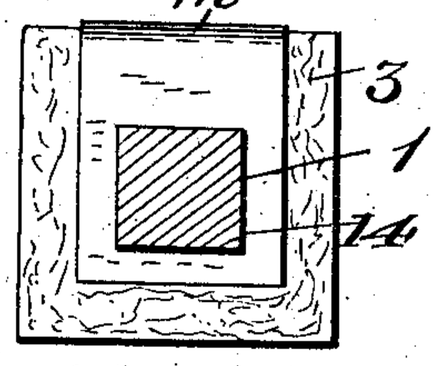
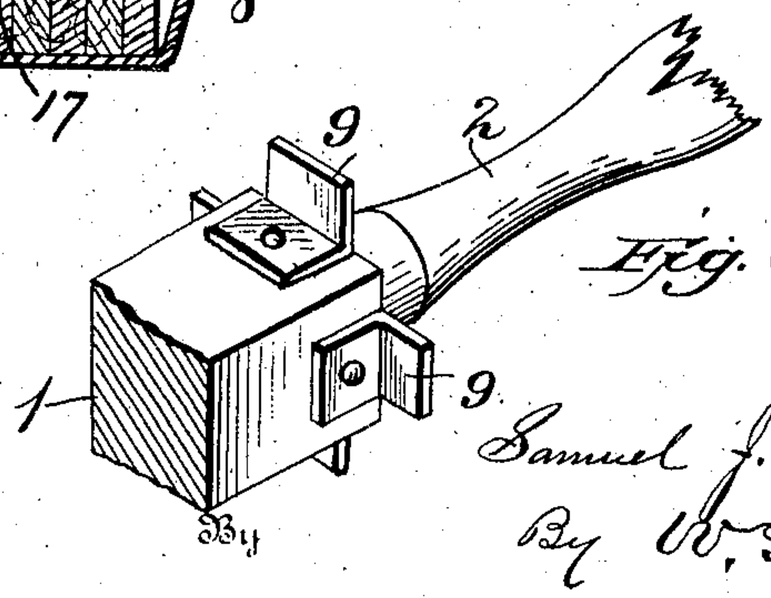


Fig. 6.



Witnesses

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No. 768,554. Patented August 23, 1904.

UNITED STATES PATENT OFFICE.

SAMUEL J. BALLARD, OF BROOKLYN, NEW YORK.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 768,554, dated August 23, 1904.

Application filed December 14, 1903. Serial No. 185,054. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. BALLARD, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Brushes, of which the following is a specification.

My invention relates to brushes, and more particularly to brushes used for polishing articles, as shoes, stoves, &c., although it can be used for other purposes, as a hat-brush, or even as a dauber for applying polishing material.

The main object of the invention is to construct a device that can be cheaply manufactured and which will have many faces, thereby adding to the durability as well as adapting the different faces to different uses.

With these and other objects in view the invention consists in the improved construction and novel arrangement of parts of a brush, as will be hereinafter more particularly set forth.

In the accompanying drawings, in which the same reference-numerals indicate corresponding parts in each of the views in which they occur, Figure 1 is a perspective view of one form of brush embodying my invention. Fig. 2 is a central longitudinal sectional view of the same. Fig. 3 is a similar view showing a different form of holder. Fig. 4 is a transverse sectional view on the line 4 4 of Fig. 2. Fig. 5 is a perspective detail view of one of the leaf-sections. Fig. 6 is a broken perspective detail view of a modification, showing a different form of stop at the inner end of the holder.

Referring more particularly to the drawings, 1 indicates the support or holder of my brush, which is preferably angular in cross-section except at the holding end or handle 2, which is preferably round to afford a more convenient grasp for the hand. Arranged upon the brush end of the holder are a series of rubbing or polishing blocks or leaves 3, preferably formed from soft pliable material, as felt or heavy cloth. These blocks are also preferably formed polygonal and are each provided with a perforation 4 to correspond with the cross-section of the holder. Instead of forming these blocks each of the same size as the cross-sectional area of the brush I prefer to make them double or join two of them together at one edge, as shown in Fig. 5, in which case there will be two holes 4, and the material will be doubled or folded transversely upon the dotted line 7. This will give one cloth edge to each pair of blocks and three raw or cut edges. By arranging the cloth edges all upon the same side of the brush a different effect can be produced by them than by using the raw edges.

In assembling the blocks upon the holder they are preferably slipped on from the outer end and pushed down until the first one engages with a shoulder on the holder, which is preferably formed as a stop driven into and projecting from the holder, as ordinary staples 8, or the stops may be formed from lips or plates 9, which are secured to the sides of the holder in any suitable manner. After as many blocks have been slipped on the holder as desired a retainer, as a disk or plate 10, is secured to the outer end of the holder, as by means of a pin or screw 11.

In addition to the blocks an auxiliary polishing-surface may be formed by means of thinner or different material 12, which can be doubled over one or more pairs of blocks, preferably the alternate ones, or it may be a strip and extend from end to end of the brush, as shown at 13 in Fig. 3. In either construction it is preferably of a less width than the face to which it is applied, and where it only covers the individual or pairs of blocks its ends are perforated, as at 14, to engage with the holder; but the ends do not extend to the opposite surface of the brush, as shown in Figs. 2 and 4.

Instead of forming the screw 11 and disk 10 separately the retainer can be formed from a single piece, as shown at 15 in Fig. 3, in which the head is made large enough to extend out beyond the sides of the holder, and thereby be in position to hold the leaves or blocks in place, and the hole for the reception of the screw is extended into the holder beyond the screw-threaded portion, as shown at 16, to form a receptacle for polishing material. This material is preferably removed by means of a dauber 17, which is secured to the inner

end of the retainer or stopper 15 in the same manner as employed with the ordinary bottle-and-cork construction..

By constructing the brush as above described it can be made very cheaply, as the holder can be formed from an angular piece of wood of the same area in cross-section throughout its length and with one end turned down to form a handhold, and the blocks can be cut or stamped from strips of felt at a single operation, after which they can be assembled and secured together very rapidly.

The perforations in the ends of each block or leaf-section, as shown in Fig. 5, occupy the same position relatively to each other and to the end, so that when the section is folded transversely the edges of the two ends will be even and when placed upon the support the edges of all of the blocks or leaves will be even irrespective of the order in which the sections are placed upon the support or holder. In other words, each leaf or block has all of its sides of equal length and with a hole at its center whose sides are also of equal length, and the length of each section is equal to the length of two leaves or blocks. This permits of the sections being assembled upon the support very rapidly, as they can be put on either side foremost, and where it is not desired to have all the cloth faces upon the same side of the handle they can be placed on the support promiscuously, all of which materially reduces the cost of manufacture, which is one of the principal objects of my invention.

The stops to form the shoulders against which the leaves are secured are separable from the support and are arranged one to project from each side face thereof, which is a much cheaper construction than making the shoulders of the same material as the support, and by making them as staples they can be easily driven into the support, and they can be made so small and arranged at such points on the support as to avoid coming in contact with the shoe or other article being polished.

The retainer at the end of the holder can be removed at any time, so that the leaves or blocks can be taken off to be cleaned or replaced with new ones, after which the retainer can be replaced and the brush will be as good as new.

By using different colors for the blocks and varying or alternating them in position upon the holder, a very novel and pleasing effect can be produced, and by making them angular several sides are formed which can be used for the same or different purposes, thereby adding to the durability as well as the utility of the brush. For instance, one of the raw edges could be used as a spreader or rubber for the fresh material, two of the sides will give a polish, either tan or blacking, while the remaining side can be used to harden the polish, the latter function being preferably performed by the cloth side or the surface provided with the auxiliary strip of material, which may be glazed, or one side of the material from which the blocks are formed could be glazed, thereby dispensing with the auxiliary entirely.

By cutting the blocks or leaves into the proper shape or outline the brush can be used for brushing hats or other articles or polishing stoves, &c., and by making it of suitably stiff or rigid material it could be used for rougher use, as cleaning metal or other objects. As each of the blocks is largely "hole," there is considerable waste in forming them; but this could be partly utilized in making smaller blocks or by disposing of it for other purposes. The blocks can be placed upon the holder with any desired degree of compression or without any compression at all, thereby securing any degree of rigidity or firmness for the polishing-surfaces. Owing to the inability of the blocks to turn or rotate upon the holder, the brush can be applied with any amount of pressure and in other directions than longitudinally.

Having described my invention, I claim—

1. A leaf-section for brushes comprising a strip of flexible fibrous material having a perforation at each end, said perforations being of the same shape and area and each occupying the same position relatively to the end of the strip in which it is situated as the other.

2. A leaf-section for brushes comprising a strip of flexible fibrous material having a perforation at each end, the length of the strip being twice its width and each perforation occupying the same position relatively to the end of the strip in which it is situated as the other, and having walls of equal length.

3. In a brush, a holder, and a series of flexible blocks non-rotatably mounted thereon, each block having a plurality of operative edges, one of which is different from the others.

4. In a brush, a holder, and a series of flexible blocks non-rotatably mounted thereon to form operative surfaces, one of the surfaces being cloth and the others raw-edged.

5. In a brush, a holder, and a series of rectangular blocks thereon, each block being perforated near each end and adapted to be folded upon itself intermediate said perforations and have the handle passed through each of the perforations.

6. In a brush, a holder, one end of which is formed into a handle and the remaining portion is angular and of the same cross-sectional area throughout its length, a separable shoulder at the inner end of the handle on each face thereof, a plurality of perforated leaves on the holder, each of said perforations being of the same size as the cross-section of the holder and the edges of the leaves being even to form a plurality of polishing-surfaces, and removable means at the outer end of the holder for holding the leaves thereon.

7. In a brush, a holder, one end of which is

formed into a handle and the remaining portion is square and of the same cross-sectional area throughout its length, a stop projecting from each face of the holder at the inner end of the handle, a plurality of leaves on the holder, said leaves being formed from sections, each section consisting of a rectangular piece of flexible fibrous material of a length equal to twice its width and having a square hole at each end, each hole occupying the same position relatively to the end of the piece of material in which it is situated as the other, and a retainer at the outer end of the holder.

8. In a brush, a holder, one end of which forms a holder and the remaining portion is angular in cross-section and of the same area throughout its length, a staple projecting from the inner end of each face of the holder, a plurality of leaves on the holder, said leaves being formed from sections, each section consisting of a rectangular piece of flexible fibrous material, each end of which is provided with a hole to fit on the holder, said sections being each folded transversely of its length and arranged on the holder with said folded sides upon the same side of the holder, whereby the brush has one folded-cloth side and three raw-edged sides, and a strip of cloth on one of the raw-edged sides, each end of which is perforated and fitted upon the handle.

9. In a brush, a holder, one end of which is formed into a handle, a stop projecting from each face of said holder, a series of perforated folded leaf-sections on the holder, a strip of cloth over each section, the ends of which are perforated and fitted upon the holder, and a retainer at the outer end of the holder.

10. In a brush, a holder, a series of flexible blocks mounted thereon, and a strip of material having its ends each perforated and secured to the holder and having its intermediate portion passed over one edge of the blocks to form an auxiliary polishing-surface.

Signed at Brooklyn, in the county of Kings and State of New York, this 12th day of December, A. D. 1903.

SAMUEL J. BALLARD.

Witnesses:
HELEN BALLARD,
WM. J. DRIVER.