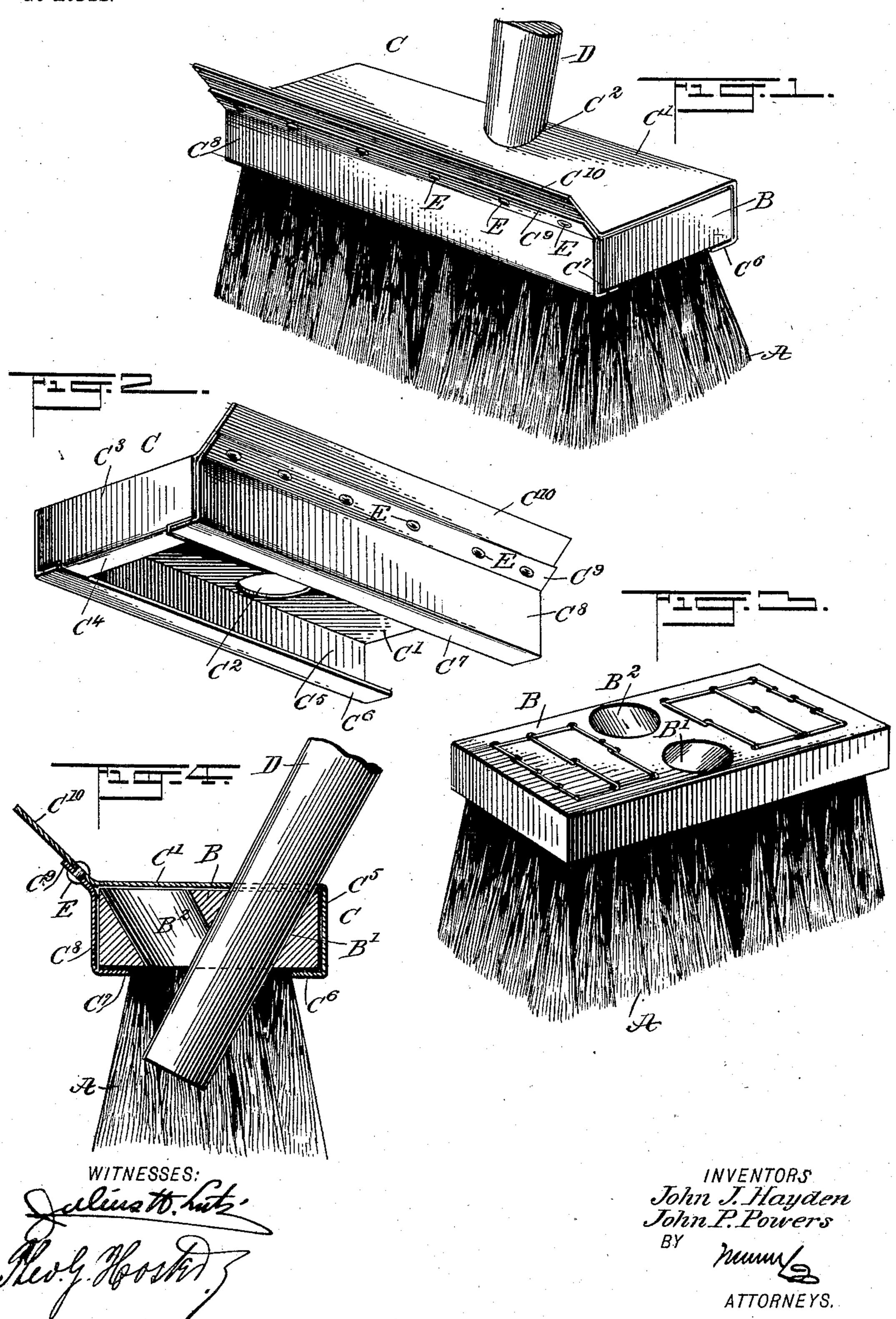
## J. J. HAYDEN & J. P. POWERS. MANUFACTURE OF BRUSHES. APPLICATION FILED JUNE 14, 1902.

NO MODEL.



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## UNITED STATES PATENT OFFICE.

JOHN J. HAYDEN AND JOHN P. POWERS, OF OSSINING, NEW YORK.

## MANUFACTURE OF BRUSHES.

SPECIFICATION forming part of Letters Patent No. 722,017, dated March 3, 1903.

Application filed June 14, 1902. Serial No. 111,788. (No model.)

To all whom it may concern:

Be it known that we, John J. Hayden and JOHN P. POWERS, citizens of the United States, and residents of Ossining, in the 5 county of Westchester and State of New York, have invented a new and Improved Street-Broom or Scrubbing-Brush, of which the following is a full, clear, and exact description.

The object of the invention is to provide a 10 new and improved street-broom or scrubbingbrush for use in cleaning streets, scrubbing floors and decks of vessels, and for other purposes which is simple and durable in construction and arranged to permit of reversing 15 the back carrying the bristles or fibers to allow uniform wear thereof without danger of splitting or warping the back, and thereby loosening the bristles or fibers.

The invention consists of novel features 20 and parts and combinations of the same, as will be more fully described hereinafter and

then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, 25 forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improvement. Fig. 2 is an under-side perspec-30 tive view of the casing. Fig. 3 is a perspective view of the brush-back, carrying the bristles or fibers; and Fig. 4 is a transverse sec-

tion of the improvement.

The bristles or stiff fibers A are secured in 35 the usual manner in a brush back or block B, adapted to be inserted into a casing C, through the open end thereof, and fastened in place in the said casing by the tapered end of a broom stick or handle D, extending with 40 the tapered end through registering apertures C<sup>2</sup> and B' or B<sup>2</sup>, of which the aperture C<sup>2</sup> is formed in the top C' of the casing, while the apertures B' and B<sup>2</sup> are formed in the brush back or block B and in transverse alinement 45 with each other, as plainly indicated in Figs. toward each other, as will be readily understood by reference to Fig. 4, so that one aperture is in alinement with the aperture C2 when 50 the brush-back B is inserted in the casing, and in order to bring the other aperture in the brush-back in alinement with the aper-

ture C<sup>2</sup> it is necessary to remove the brush back or block B from the casing and turn it around and then reinsert it into the casing. 55 By this arrangement the brush-back or brushblock can be readily reversed relative to the casing and in either position is secured in the casing by the tapered end of the broom stick or handle D. Thus when the brush is used 6c and the bristles wear down more on the side next to the handle D than at the front then the brush-back is reversed in the casing to bring the longer bristles to the rear next to the handle and the shorter ones to the front 65 to insure even wear of the bristles. This operation can be repeated several times during the lifetime of the brush to insure uniform wear of the bristles and consequent effective use of the brush or broom.

The casing C, made of sheet metal, is formed with a closed end C<sup>3</sup> integral with a top C' and terminating at its bottom in a guideway C<sup>4</sup>, extending inwardly to receive the under side of the inner end of the brush-back B to assist 75 in supporting the latter in the casing. The top C' continues into an integral side C<sup>5</sup>, formed with an inwardly-turned longitudinal guideway C<sup>6</sup> in horizontal alinement with the guideway C4 and located directly opposite a 80 similar longitudinal guideway C7, formed on the side C<sup>8</sup> of the casing, the said side C<sup>8</sup> being made of a separate piece of sheet metal to form at its upper end a flange C<sup>9</sup>, fastened by rivets or like devices E to a scraper C<sup>10</sup> in 85 the shape of a flange extending integrally from the top C' and in an upwardly and outwardly inclined direction, as plainly illustrated in the drawings. Now the guideways C<sup>6</sup> and C<sup>7</sup> are engaged by the under side of 90 the brush back or block B, at the sides thereof, so that the brush-back B is supported at the two sides by the guideways C<sup>6</sup> and C<sup>7</sup> and at one end by the guideway C4. Now by reference to Fig. 4 it will be seen that the handle 95 D extends from the casing upwardly and outwardly, but in an opposite direction from 3 and 4. The apertures B' and B<sup>2</sup> are inclined | that of the scraper C<sup>10</sup> to allow the operator to conveniently turn the device around, so as to bring the bristles A uppermost and the 100 scraper C<sup>10</sup> downward for using the scraper C<sup>10</sup> for scraping purposes, to clean out corners and the like.

From the foregoing it will be seen that the

scraper C<sup>10</sup> and the handle D will always stand in the same relative position to each other irrespective of whether the brush-back B is in the ordinary or a reversed position in the

5 casing C.

By constructing the casing C of two parts, as described, a very strong and durable casing is produced and the scraper C10 is strongly reinforced by the flange C<sup>9</sup>. It is understood ro that the bristles A are so arranged on the block B that they extend through the opening in the bottom of the casing C, between the inner edges of the guideways C4, C6, and C7. (See Fig. 4.) As the brush-back is almost 15 completely protected by the casing it is evident that it is not liable to be injured, split, or warped when the broom is in use, and hence the bristles are not liable to become loose and long life of the brush is insured— 2c that is, until the bristles are completely worn off.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

25 1. A street-broom or scrubbing-brush provided with a casing having an apertured top, an integral end formed with an inwardly-turned guideway, an integral side formed with an integral inwardly-extending longitudinal guideway, a scraper extending in-

tegrally from the top of the casing opposite the said integral side, a separate side having an inwardly-turned guideway at the bottom and a flange at its upper end, and means for securing the said flange to the said scraper, 35 as set forth.

2. A broom or brush comprising a casing having an open end, and provided with guideways on the bottom at two sides and one end thereof and with an aperture in its top, a 40 removable brush-back carrying bristles and mounted to slide in and out of the said casing and through the said open end, the said brush-back being provided with two transversely-alined apertures inclined toward the 45 longitudinal center of the brush-back and toward each other, one of the apertures being adapted to register at a time with one of the apertures in the top of the said casing, and a handle having a tapering end extending in 50 the registering apertures in the top of the casing and the brush-back, to secure the latter to the handle and to hold the brush-back against sliding movement in the casing, as set forth.

> JOHN J. HAYDEN. JOHN P. POWERS.

Witnesses:

R. H. KENNEDY, E. D. BUSBY.