

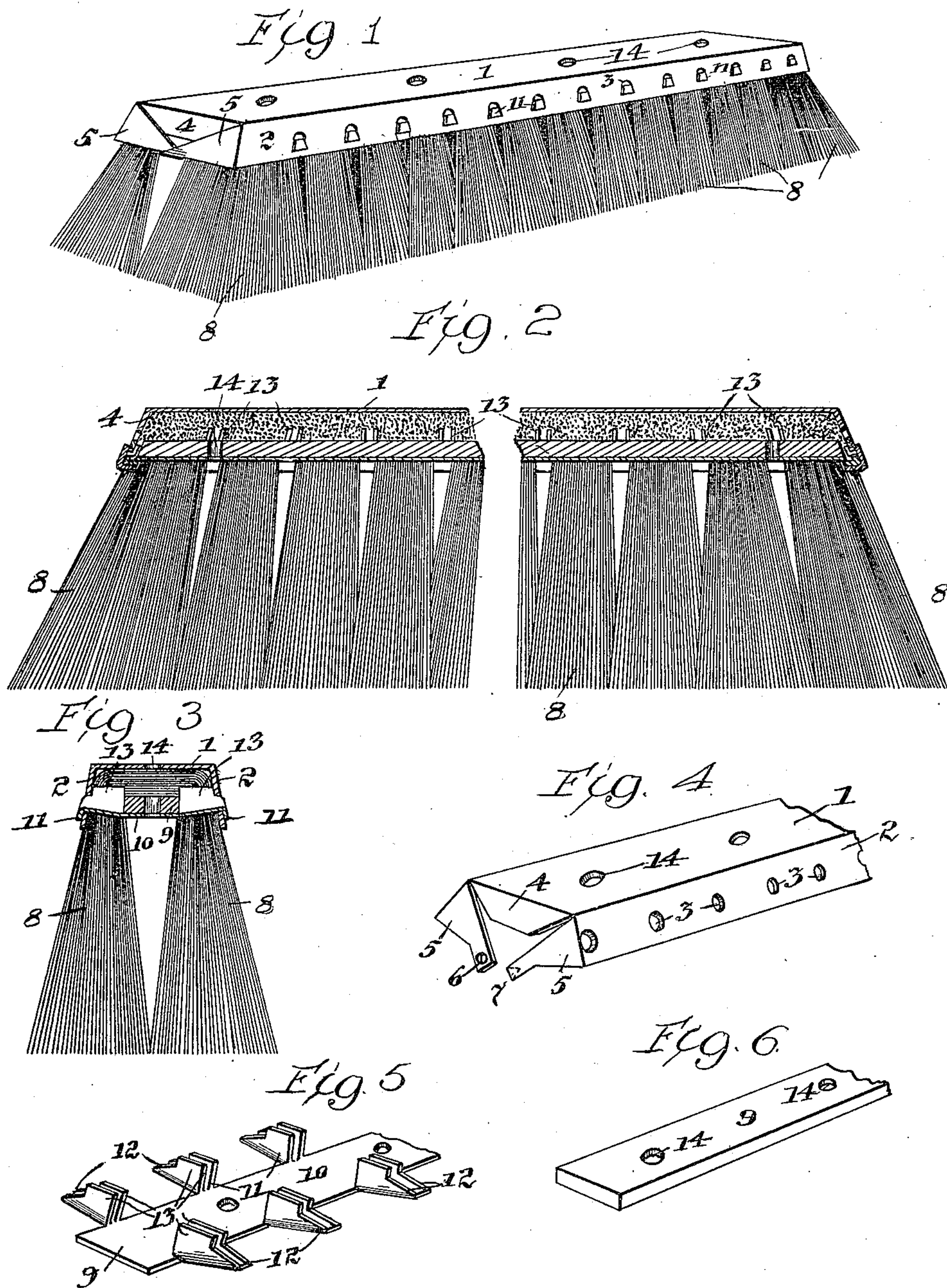
S. B. McHENRY.

BRUSH.

APPLICATION FILED MAY 11, 1910.

975,776.

Patented Nov. 15, 1910.



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# UNITED STATES PATENT OFFICE.

SAMUEL B. McHENRY, OF CHICAGO, ILLINOIS.

BRUSH.

975,776.

Specification of Letters Patent.

Patented Nov. 15, 1910.

Application filed May 11, 1910. Serial No. 560,629.

*To all whom it may concern:*

Be it known that I, SAMUEL B. McHENRY, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Brushes, of which the following is a specification.

My invention relates to improvements in brushes and has for its object the provision of a brush having improved means for securing and positioning the bristles therein.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which—

Figure 1 is a perspective view of a portion of a brush embodying my invention, Fig. 2, an enlarged partial longitudinal section of the brush, Fig. 3, a cross-section of the brush, Fig. 4, a partial perspective view of the channel member employed in the brush, Fig. 5, a partial perspective view of the metallic securing plate employed in the brush, Fig. 6, a partial perspective view of the wooden securing strip employed in the brush, and Fig. 7, a partial side view of the said metallic member.

The preferred form of construction as illustrated in the drawings comprises a channel member consisting of body member 1 and flanges 2 arranged at slight downward and outward inclination to body member 1 and provided with perforations 3. At either end the body member 1 is provided with downwardly turned flaps 4 and flanges 2 are provided with inwardly turned flaps 5, one of the flaps 5 being provided with a perforation 6 and the other flap with the tongue 7 adapted to take through perforation 6 and serve as a means for securing flaps 5 together as indicated in Fig. 2, the arrangement being such that said flaps 4 and 5 are secured in position to form downwardly and outwardly inclined ends for said channel member 1. Bristles 8 are secured in channel member 1 by means of a suitable securing member forced into said channel over the central portions of said bristles and secured therein. The bristles may be of any of the usual hairs or fibers employed for this purpose, but since the construction is primarily designed for making scrubbing brushes, a stiff vegetable fiber

will be found preferable. This securing member consists of a wooden strip 9 and a metallic securing plate 10 placed thereover. At its sides plate 10 is provided with projections 11 adapted to be inserted through perforations 3 and have their ends clenched over the outer sides of flanges 2 as indicated in Fig. 1. These projections are in channel form having the outer ends of their flanges beveled as at 12 to facilitate insertion in perforations 3 and provided at their inner portions with upwardly extending bearing flanges 13 as shown. The projections at either end of plate 1 are given an upward and inward inclination for a purpose to be hereinafter explained. Suitable bolt-holes 14 may be provided in body member 1 and securing members 9 and 10 for the reception of bolts for securing the brush portion in position.

In the process of manufacture the channel member 1 is first formed as described and the bristles placed with their central portions over the open side of said channel member. Then the securing strip 9 and plate 10 are placed over the central portions of said bristles and forced into said channel member until the ends of projections 11 pass into perforations 3 which they will readily do owing to the bevels 12 thereon. Then the projecting ends of projections 11 are clenched over the outsides of flanges 2 thus securing all parts in position. When projections 11 are thus forced into bristles the same are naturally divided into a series of tufts as shown, the end tufts being given an outward and downward inclination by the inclinations of the end projections 11 and the ends of channel member 1. The wooden strip 9 furnishes a comparatively soft bearing for the bristles at their sharply bent portions thus preventing cutting, and the outwardly extending flanges 13 furnish a broad lateral bearing for the bristle tufts thus preventing cutting of said bristles at the sides. This construction will be found to furnish a convenient means for securing the bristles in position and also a very firm and secure means for this purpose. The brush thus formed may be secured to a handle and used as such or several of such brushes may be made up and secured in one handle or holder to constitute a large-sized brush.

While I have illustrated and described the preferred form of construction for carrying

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my invention into effect this is capable of variation or modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the exact details set forth but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention what I claim as new and desire to secured by Letters Patent is:

1. A brush comprising a channel member having perforations in its sides; bristles in said channel member with both of their ends projecting therefrom; and a securing member placed in said channel over the central portions of said bristles, the said securing member having side projections passed through said perforations and clenched against the outer sides of said channel member, substantially as described.

2. A brush comprising a channel member having perforations in its sides and downwardly and outwardly inclined ends; bristles in said channel member with both of their ends projecting therefrom; and a securing member placed in said channel over the central portions of said bristles and said securing member having side projections passed through said perforations and clenched against the outer sides of said channel member, the end projections having an upward and inward inclination, substantially as described.

3. A brush comprising a channel member having downwardly and outwardly inclined flanges provided with perforations therein and downwardly and outwardly inclined ends; bristles in said channel member with both of their ends projecting therefrom; and a securing member placed in said channel over the central portions of said bristles, the said securing member having side projections passed through said perforations and clenched against the outer sides of said channel member, the end projections having an upward and inward inclination, substantially as described.

4. A brush comprising a metallic channel member having perforations in its sides; bristles in said channel member with both of their ends projecting therefrom; and a securing member placed in said channel over

the central portions of said bristles, the said securing member consisting of an inner wooden strip and an outer metallic plate, the said plate being provided with side projections passed through said perforations and clenched against the outer sides of said channel, substantially as described.

5. A brush comprising a metallic channel member having perforations in its sides and downwardly and outwardly inclined ends; bristles in said channel member with both of their ends projecting therefrom; and a securing member placed in said channel over the central portions of said bristles, the said securing member consisting of an inner wooden strip and an outer metallic plate, the said plate being provided with side projections passed through said perforations and clenched against the outer sides of said channel, the said projections being in channel form with upwardly projecting flanges at the inner portions of each of their sides and the outer of said projections being upwardly and inwardly inclined, substantially as described.

6. A brush comprising a metallic channel member having downwardly and outwardly inclined flanges provided with perforations in their sides and downwardly and outwardly inclined ends; bristles in said channel member with both of their ends projecting therefrom; and a securing member placed in said channel over the central portions of said bristles, the said securing member consisting of an inner wooden strip and an outer metallic plate, the said plate being provided with side projections passed through said perforations and clenched against the outer sides of said channel, the said projections being in channel form with upwardly projecting flanges at the inner portions of each of their sides and the outer end of said projections being upwardly and inwardly inclined, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL B. McHENRY.

Witnesses:

HELEN F. LILLIS,  
JOSHUA R. H. POTTS.