

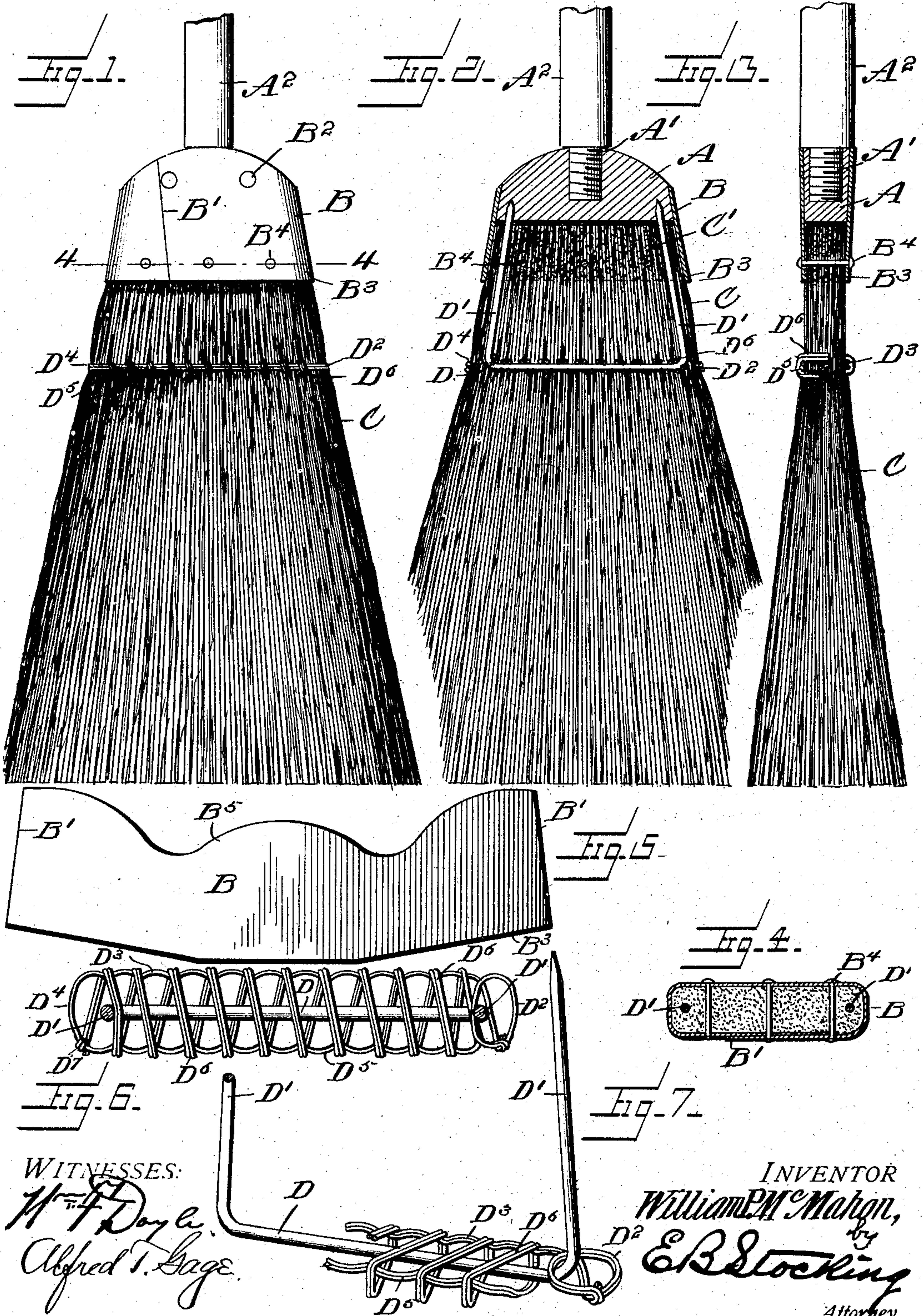
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W. P. McMAHON.

BROOM HEAD.

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WITNESSES:

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BROOM-HEAD.

SPECIFICATION forming part of Letters Patent No. 782,621, dated February 14, 1905.

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To all whom it may concern:

Be it known that I, WILLIAM P. McMAHON, a citizen of the United States, residing at Louisville, in the county of Jefferson, State of Kentucky, have invented certain new and useful Improvements in Broom-Heads, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a broom-head, and particularly to a structure for elastically supporting the straws within the head.

The invention has for an object to provide a spring-bar secured to the head-block and disposed within the body of the straws, to which it is secured by suitable stitching, so as to hold the straws against movement in the head and also to impart to the same an elastic body, which is a very essential and desirable quality in a broom structure.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawings, Figure 1 is an elevation of the invention; Fig. 2, a central vertical section; Fig. 3, a similar cross-section at a right angle to Fig. 2; Fig. 4, a horizontal section on the line 4-4 of Fig. 1; Fig. 5, a plan of the band; Fig. 6, a diagram of the stitching in connection with the spring-bar, and Fig. 7 a detail perspective of the same feature.

Like letters of reference refer to like parts in the several figures of the drawings.

The letter A designates a head-block, which may be of any suitable material, preferably wood, and provided with a socket A', adapted to receive a suitable handle A², to be secured therein by threading or otherwise. It is desirable to provide the removable threaded connection for the handle, so that handles of different lengths may be used, thus adapting the broom for use upon walls and ceilings as well as for floors.

Secured to the head A is a band B, preferably overlapped at its opposite ends B' and secured to the head in any desired manner—for instance, by fastening-nails B², as shown in Fig. 1. This band entirely surrounds the head and extends beyond the same, so as to form a socket, within which the upper ends

of the straws C are disposed, said straws being, if desired, at that point suitably treated with a cement or other material, as indicated at C', for the purpose of retaining within the head and also in relation to each other. The depending portion B³ of the band is compressed at its free edge, so as to grip and hold the straws within the head and held under such compression by means of bolts or rivets B⁴, extending between the opposite sides of the band, as shown in Fig. 4, where they may be secured by heading or otherwise. The band B is formed from a blank, as shown in Fig. 5, suitably cut away at its upper edge B⁵ upon curved lines to conform to the curvature of the block A, which it embraces, for the purpose of producing a convenient head to the broom.

For the purpose of imparting elasticity to the body of the broom a spring-bar D is provided and secured to the block A by means of the spring-arms D', embedded in said block or otherwise secured thereto, the bar D being disposed within the body of the straw and completely concealed from view. For the purpose of connecting the straws C to the spring-bar D a stitching or sewing strand, preferably of copper wire, is provided, and, as shown in Figs. 6 and 7, is provided at one end with a looped portion D², embracing the right end of the broom, as shown in Fig. 1, and extending thence along the outer face of the straws, as indicated at D³, thence embracing the left end of the broom, as at D⁴, and continuing upon the opposite outer face of the straws, as at D⁵. The free end of this portion D⁵ is then carried transversely to the strands D³ and D⁵, alternately above and below the spring-bar D, as shown at D⁶, until it reaches the opposite end of the broom, where it is secured, as indicated at D⁷. For the purpose of imparting strength to the stitching a double strand is herein illustrated; but it is obvious that the number of strands to be used may be varied as found desirable or necessary in use.

It will be seen that the construction and arrangement of the spring-bar embedded within the body of the straws and secured thereto by the stitching hereinbefore mentioned pro-

vides an elastic support extending downward from the head-block of the broom, by which the straws are supported and given an elasticity in the use of the broom which materially extends the life thereof and imparts to a cheaper grade of straw all of the elastic and desirable qualities secured by the most expensive material. The band also forms an additional securing means by which pressure is applied to retain the straws within the head, and this in connection with the stitching effectually prevents the falling out of the broom-straws or the breaking thereof in the use of the broom. The stitching shown embodying the alternate strands above and below and encircling the spring-bar prevents the loosening of the straws due to shrinkage or expansion, as is the case in the use of cord, while the manner of stitching connecting the straws to the bar is to prevent any movement thereof upon the bar. The structure also effects a very material saving in the labor ordinarily required to assemble and stitch the straws to form a broom and provides in its entirety an economical, substantial, and attractive article.

It will be obvious that changes may be made in the details of construction and configuration without departing from the spirit of the invention as defined by the appended claims.

Having described my invention and set forth its merits, what I claim, and desire to secure by Letters Patent, is—

1. In a broom-head, a block, a band encir-

cling the same and extending beyond one face of the block, a depending U-shaped spring-bar disposed within said holder and provided with sharpened ends adapted to enter said block at points removed from each other, and straws secured to the opposite sides of said bar.

2. In a broom-head, a block, a depending bar secured thereto, straws secured to the opposite sides of said bar, and a securing-strand encircling the outer faces of the straws longitudinally of the head and transversely through the straws and over the longitudinal strand so as to embrace and compress the latter toward the center of the straws.

3. In a broom-head, a block, a band encircling the same and extending beyond one face of the block, a depending U-shaped spring-bar disposed within said holder and provided with sharpened ends adapted to enter said block at points removed from each other, straws secured to the opposite sides of said bar, and a continuous securing-strand encircling the opposite outer faces of the straws longitudinally of the head and extending transversely over the longitudinal strands and alternately above and below the bar to encircle and compress the outer strands.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM P. McMAHON.

Witnesses:

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