D. M. SPALDING.

Brush and Broom Holder.

No. 203,208. Patented April 30, 1878.

Fig. 1.

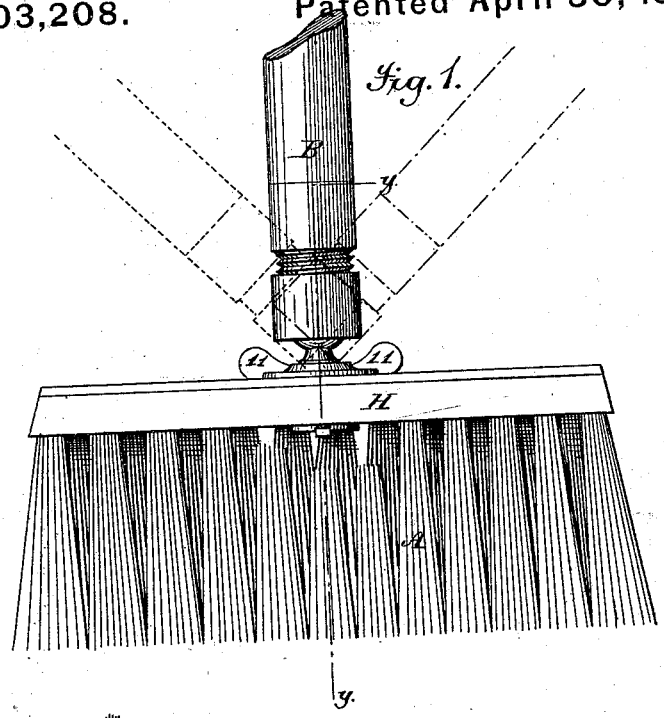


Fig. 2.

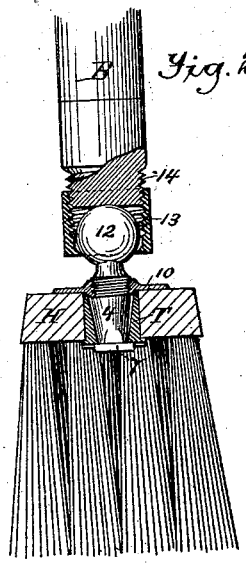


Fig. 3.

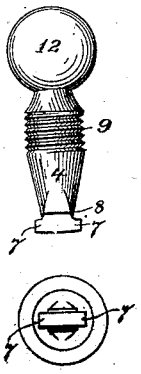
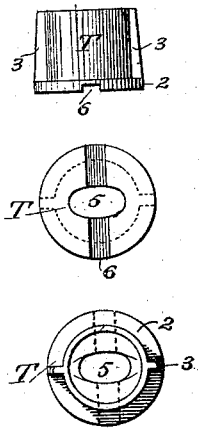


Fig. 4.



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UNITED STATES PATENT OFFICE.

DWIGHT M. SPALDING, OF SOUTH WOODSTOCK, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOEL R. HOLCOMB AND E. KNIGHT SPERRY, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN BRUSH AND BROOM HOLDERS.

Specification forming part of Letters Patent No. **203,208**, dated April 30, 1878; application filed March 12, 1878.

To all whom it may concern:

Be it known that I, DWIGHT M. SPALDING, of South Woodstock, Windham county, Connecticut, have invented an Improvement in Brush and Broom Holders, of which the following is a specification:

This invention consists in the construction not only of the means for attaching handles to brushes, brooms, mop-holders, and like implements, but to the means for adjusting such handles in various positions of inclination relative to the same, all of which is too particularly hereinafter set forth to need preliminary description.

In the drawings illustrative of my improvements, Figure 1 is a side elevation of a brush with its handle attached, said figure showing in dotted lines two of the adjustments which said handle is capable of receiving. Fig. 2 is an end elevation of the same device, parts of which are in section the better to show their construction. Fig. 3 shows an elevation and bottom-plan view of the ball and its attaching-shank, while Fig. 4 shows the fastening-thimble in elevation, bottom and top plan views.

The necessity of properly securing its handle to a brush or broom head, or to the head of a floor-mop and many kindred articles of household use, so that the parts shall not only be securely fixed one to the other, but remain so during all the strains to which they are subjected by wear or use, contact with fluids, or exposure to weather, and also be capable of having their means of union tightened or made more secure when loosened by warping, or their parts otherwise become displaced, has resulted in the structure of an infinite variety of clamps and other means for uniting said parts; but the necessity of a cheap, durable, and effective device still exists, and it is to this end that one of the improvements effected by me is directed, which improvement I will now proceed to minutely describe.

The head H, which may support a number of tufts of hair, bristles, or splints, as A, thus forming a brush or broom, or carry a number of strips of cloth or bunches of wicking and the like, as a mop, or be provided with any other brushing or wiping means, is perforated centrally with a mortise, into which is fitted a thimble, T. This thimble is provided with one or more side ribs, as 3, which prevent its turning in the mortise, and with a flange, 2, by which it is seated against the under surface of the head H. It is further provided with tapered interior walls adapted to fit the like construction of the shank 4, to which the handle B is to be attached, and has an oblong perforation, 5, through its bottom, which is intersected transversely by a groove, 6, which preferably has right-angular sides. The shank 4 is provided at its lower extremity with square shouldered arms 7 7, which are adapted to be seated in the groove 6, and immediately above them it is reduced to form a circular neck, which permits it to freely turn in the oblong perforation 5. This shank, moreover, has its body provided with a screw-threaded portion, 9, adapted to receive a clamping-nut, 10, which carries wings or thumb and finger rests 11, by which it may be rotated.

To adjust the parts in place, the thimble T is forced into the mortise in the head H until the flange 2 is seated snugly against its under side. The said shank 4, upon which the clamping-nut 10 has been placed, is then introduced through the thimble until its flanged end protrudes through the opening 5, being thereupon rotated until the flanges 7 become aligned with and enter the groove 6. The nut 10 is then turned up until it rests upon the top surface of the head H, and draws the flanges 7 firmly into the groove 6, and the parts are rigidly seated in place. The shank 4 will thus be firmly affixed to the head, and will resist any ordinary wear and usage without becoming loosened, and may be continued in that position by occasionally tightening up the clamping-nut 10. The said shank 4 may be attached to a handle in any simple and approved manner, and the brush or similar article be manipulated as is common with articles having straight handles.

This fastening device will enable one to readily detach the handle from one brush or implement and quickly attach the same to an-

other, thus furnishing a number of brushes or similar implements with a common or interchangeable handle.

In manipulating such articles, however, as brushes which require to be used by a person while in various inconvenient positions relative to the surface to be operated upon, it has been, and continues to be, a desideratum to provide the article with a handle which may be fixedly set or adjusted at various angles of inclination with respect to the head H of a brush or similar implement; and in order to supply a ready, inexpensive, and effective means of accomplishing such adjustments, I provide the shank 4 with a globe-like head or ball, 12, which is adapted to fit within a socket, 13, which is provided with an internal screw-thread, as shown, by which it is attached to the handle B. This socket affords a perfect bearing or seat for the ball 12, and with it constitutes a ball-and-socket or universal joint, connecting the handle to the brush-head, whereby said handle may be moved in any direction with respect to the head H, and by screwing the handle snugly into said socket its end will so press upon the ball 12 as to clamp the same immovably in the socket, and thus hold the handle fixedly in its adjusted position. By unloosening the handle any new adjustment of it may be effected, and the handle secured there, by simply screwing it again snugly upon the ball 12.

It is apparent that the screw-thread 14, carried by the handle, may, and preferably will, be formed on a metal shoe fixed to the handle, and, further, that the socket 13 may be provided with an external screw-thread, and the handle or metal shoe thereon carry the internal screw-thread; but in this structure a central projection must be formed upon the end of the handle, to engage with and clamp the ball 12 into said socket.

A handle which is secured to the head H by other means than that herein shown may be supplied with my improved adjusting device. Thus the shank 4 may have the form of a screw-bolt held in place by a fastening-nut upon its end, or be a simple rod keyed in place. The ball 12 might also form a part of a cast head, H.

Having now fully described my improvements and set forth their merits, what I claim is—

1. The combination, with the head H and the thimble T, having a groove, 6, of the shank 4, having the arms 7 and clamping-nut 10, substantially as described.

2. The combination, with the head H, provided with the ball 12, and with means for attaching the two together, of the socket 13 and screw-threaded handle B, substantially as described.

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

D. M. SPALDING.

Witnesses:
HENRY T. MUNSON,
GEORGE H. GRAHAM.