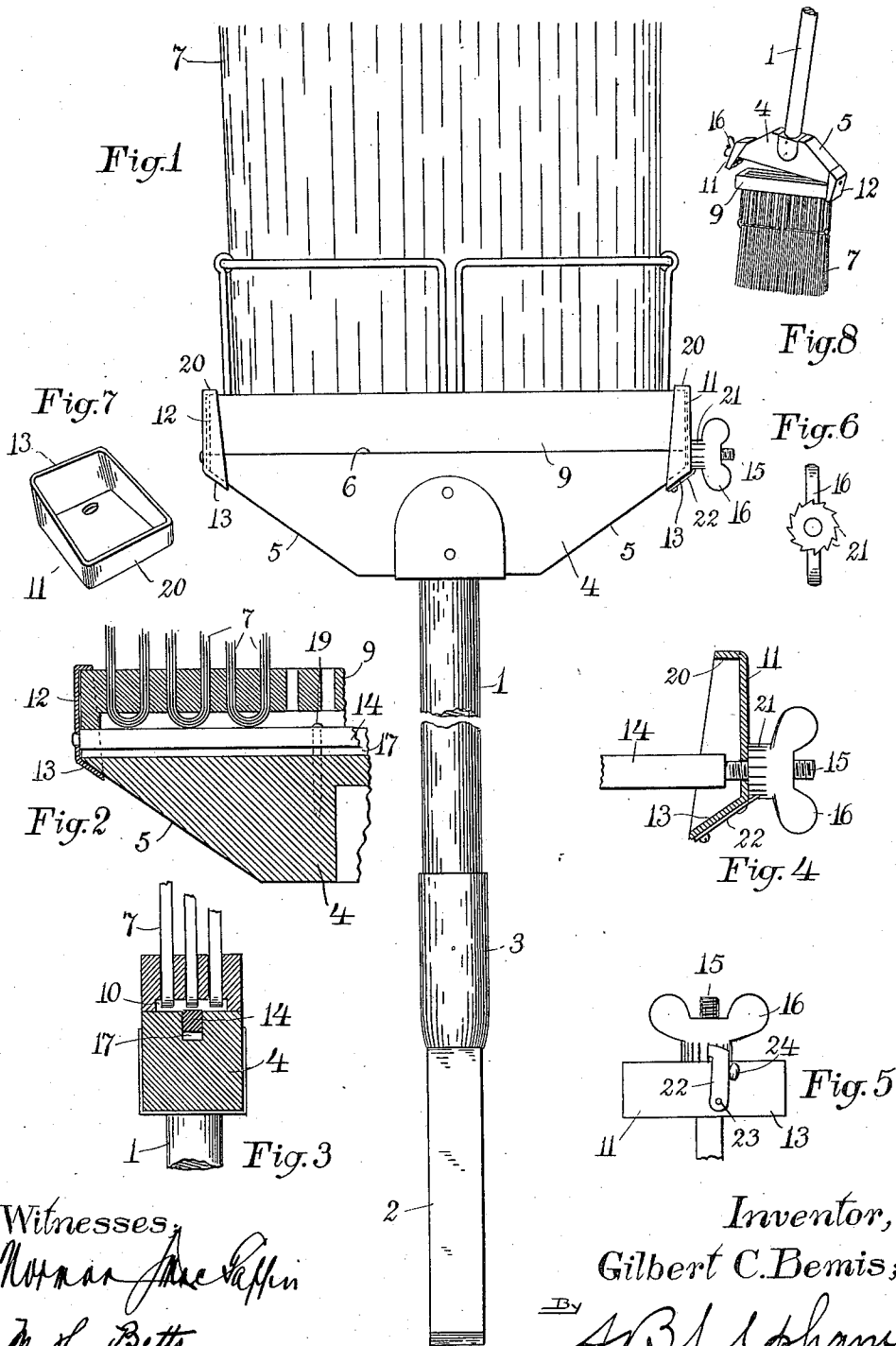


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BROOM.
APPLICATION FILED FEB. 5, 1912.

1,028,182.

Patented June 4, 1912.



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UNITED STATES PATENT OFFICE.

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BROOM.

1,028,182.

Specification of Letters Patent.

Patented June 4, 1912.

Application filed February 5, 1912. Serial No. 675,438.

To all whom it may concern:

Be it known that I, GILBERT C. BEMIS, a citizen of the United States, and a resident of the city and county of Worcester, in the Commonwealth of Massachusetts, have invented certain new and useful Improvements in Brooms, of which the following is a full and clear description.

This invention relates particularly to track brooms, that is, to brooms the handles of which are provided with a spade or chisel by means of which to dig out the rail grooves and switch points of street railways, while the opposite end of each handle is provided with a broom for sweeping out the same. Inasmuch as such a handle, with its chisel and broom head, is somewhat expensive, and the broom wears out much quicker than the chisel, I have devised the herein-after described means for enabling the distinctively broom portion to be removable, so that a fresh one can be readily substituted for the worn broom, and the same handle, chisel and broom head can be continued in use until the chisel itself is in a condition to be thrown away.

Referring to the drawings forming part of this specification, Figure 1 is an elevation of a broom embodying my invention, the intermediate portion of the handle being broken away. Fig. 2 is a sectional view of a part of the broom head and broom. Fig. 3 is a cross section of the same. Fig. 4 is a sectional view of one of the gripping sockets and the coating thumb nut. Fig. 5 is another view of the same. Fig. 6 is an end view of the thumb nut. Fig. 7 is a perspective view of said gripping socket. Of above described views, Figs. 1, 2 and 3 are approximately half size, while the other views are full size. Fig. 8 is a perspective view of the broom on a small scale.

The handle, as shown in Fig. 1 and designated by the reference numeral 1, is provided with the spade or chisel 2 fixed thereto by the ferrule 3. At the opposite end of said handle is the head 4 rigidly and permanently fastened thereto, said head being formed with the oblique surfaces 5, the purposes of which will be explained later. Upon the flat face 6 of said head is located the broom comprising the metallic "straws" 7 and holder 9 for the same. As shown in Fig. 3, said holder is recessed in its under

face, as at 10, to provide room for the bends 55 of the doubled elements 7, as indicated in Fig. 2, so that said holder can rest flush against the head 4. For securing this holder to the head, sockets 11, and 12 are fitted over the ends thereof, as illustrated in Fig. 1; the side 13 of each socket being made oblique to fit the surface 5. These sockets are penetrated by a rod 14, the greater part of which is preferably square in cross section, with its termination 15 formed as a screw upon which turns the thumb screw 16. The opposite end of said rod is preferably permanently held by the socket 12, by having the rod-end upset in the hole therein entered by such end. As shown in Fig. 3, this rod lies in a groove 17 in the head 4, and is held therein by means of a nail or pin 19 driven through a hole in the rod into the wood composing the head, the hole in the rod fitting said nail somewhat loosely.

When the thumb screw is tightened up, and the sockets are forced toward each other, the oblique sides 13 of the latter slide along the oblique surfaces 5 of the heads 4, and thereby cause the sides 20 of said sockets to press the holder 9 snugly down upon the head 4, the relative proportions of the parts being so made that the sockets will not reach the flat ends of the holder and head until such action has been accomplished. The holder being thus pressed firmly down upon the head, the broom is held with perfect rigidity.

To insure that the thumb screw shall not become accidentally unloosened, I form its periphery with ratchet teeth 21, as shown in Figs. 4 and 6, and supply a latch 22 pivoted to the socket 11 at 23 and adapted to engage said teeth. A lug 24 is struck up from the socket face for holding the latch to its task. This is sufficient to keep the latch in operative position ordinarily, but whenever the broom holder is to be replaced by a fresh one, the latch can be easily pried past said lug and the thumb screw unscrewed. To replace a broom holder, it is an easy operation to thus pry the latch out of the way, unscrew the thumb screw, spread the sockets apart, and remove the broom; and it is an equally easy thing to insert the new broom, press the sockets into place, and turn up the thumb screw until all is taut.

What I claim as my invention and for

which I desire Letters Patent is as follows, to wit;—

1. A broom comprising a handle and head, said head having oblique terminal surfaces, a holder substantially equal in length to said head, sockets receiving the ends of said holder and head, and means for pressing said sockets toward each other, said sockets being adapted by their coaction with said oblique surfaces to draw the holder down against the head.

2. A broom comprising a handle and head, a holder substantially equal in length to said head, and sockets fitted to the ends of said head and holder and adapted to be pressed strongly toward each other, the parts being so constructed that such pressure will force the holder down upon the head.

3. A broom comprising a handle and head, a holder substantially equal in length to the head, the latter having oblique terminal surfaces, a socket fitted to each end of the head and holder and having an oblique side coacting with one of said oblique sur-

faces, and a rod and thumb screw adapted for pressing said sockets toward each other, the coacting of said oblique sides and surfaces forcing said holder tightly down upon said head.

4. A broom comprising a handle and head, the head having oblique terminal surfaces, a holder, sockets fitted to receive the joined ends of said head and holder, a square rod and a thumb screw adapted for pressing said sockets toward each other, said head being formed with a deep groove receiving said rod, and means for keeping said rod from escaping from said groove, the said oblique surfaces being adapted to move said sockets and rod downward as the sockets are pressed toward each other by the thumb screw and rod.

In testimony that I claim the foregoing invention, I have hereunto set my hand this 27th day of January, 1912.

GILBERT C. BEMIS.

Witnesses:

H. L. WHITTLESEY,
A. B. UPHAM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."