G. C. BEMIS.

BROOM.

APPLICATION FILED MAR. 15, 1913.

1,101,520. Patented June 30, 1914.

2 SHEETS—SHEET 1.

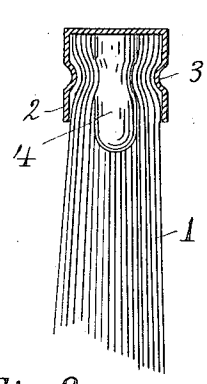


Fig. 3

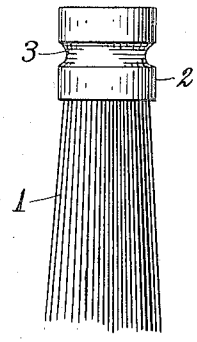


Fig. 2

Fig. 1

Witnesses;

C. C. Munster.

Edwin Shivell

Inventor,

Gilbert C. Bemis;

By A. B. Upham.

Attorney.

G. C. BEMIS.

BROOM.

APPLICATION FILED MAR. 15, 1913.

1,101,520.

Patented June 30, 1914.

2 SHEETS—SHEET 2.

Fig. 7

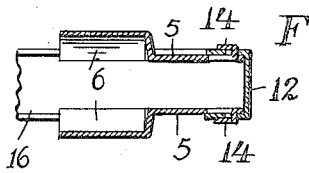


Fig. 4

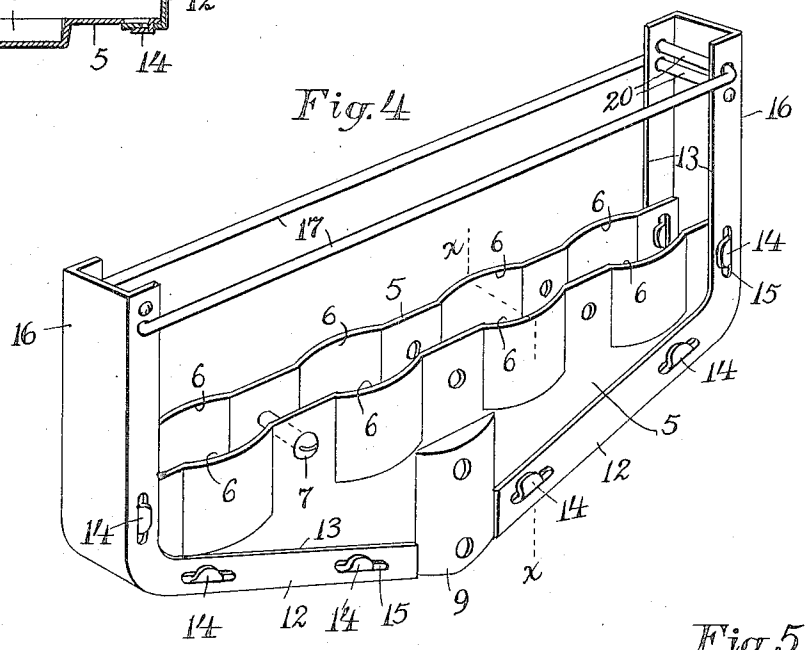


Fig. 5

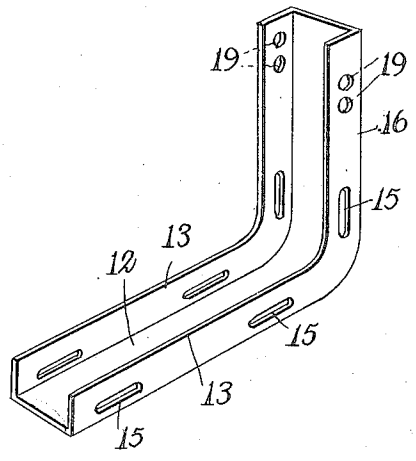
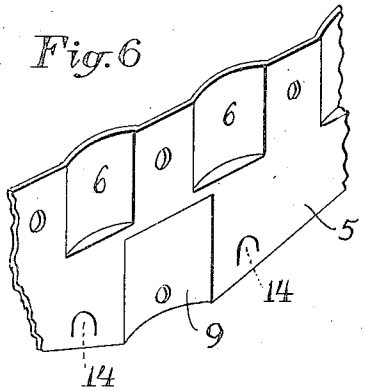


Fig. 6



Witnesses,

C. C. Munster.

Edwin Shivell

Inventor,

Gilbert C. Bemis;

By A. B. Lusham.

Attorney.

UNITED STATES PATENT OFFICE.

GILBERT C. BEMIS, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO EDWARD F. FLETCHER, OF WORCESTER, MASSACHUSETTS.

BROOM.

1,101,520. Specification of Letters Patent. Patented June 30, 1914.

Application filed March 15, 1913. Serial No. 754,472.

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 and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Brooms, of which the following is a full, clear, and exact description.

The object of this invention is the construction of a broom for sweeping tracks, mills and the like, which shall be of maximum strength and durability, and minimum cost. To this end I have devised a method of clamping a set of brush-units, or fillers, between two plates of recessed metal in such a manner as to secure the results desired.

Referring to the drawings forming part of this specification, Figure 1 is a side view of a broom made in accordance with my invention. Fig. 2 is a side view of one of said units or fillers. Fig. 3 is a side sectional view of the same. Fig. 4 is a perspective view of the broom head alone. Fig. 5 is a perspective view of one of the edge-strips. Fig. 6 is a perspective view of the inner surface of a part of one of the metal plates. Fig. 7 is a cross section on the line *x*—*x* in Fig. 4.

The bristles 1 of this broom are preferably of metal, and separated into bunches each confined in a thimble 2, as shown in Fig. 2. These bristles are preferably held in said thimbles by the inwardly compressed bead 3 coacting with the grooved wooden plug 4 (Fig. 3) to effectually grip the bristles or wires against withdrawal. I do not further describe nor claim these units in this case, inasmuch as they compose the subject matter of my companion application Serial No. 723,342. For securely holding said thimbles and contents in place, the two sheet metal plates 5 are formed with oppositely facing recesses or seats 6 (Figs. 4 and 6) adapted to receive said thimbles; bolts 7 penetrating the plates between the pairs of recesses serving to tightly clamp said parts together. At the opposite edges of said plates are two recesses 9 adapted to receive the extremity of the broom handle 10, the latter being further made fast therein by one or two rivets 11 penetrating the same, as shown in Fig. 1.

While the construction thus far described would make a fairly good broom, it would lack somewhat in strength and neatness of appearance. Consequently I provide the edging strips 12 covering the exposed edges and ends of the plates. Said strips are formed with flanges or rims 13 fitted to embrace the side faces of the plates adjacent to said edges (Fig. 4), and preferably secured thereat by means of spurs 14 struck up from said plates into slots 15 in the strips, and tightly bent over the latter. The inner ends of said strips abut against the surface of the broom handle and serve the additional function of bracing the latter. Another important function of said strips is that performed by their extensions 16, in the support of the guard wires 17. Through each flange 13 of each extension terminal 16 are two holes 19 (Fig. 5) for the reception of the right-angled bends 20 of each guard wire 17, the end of each of said bends being suitably upset to retain it in place. By means of said guard wires the bristles are guarded against becoming broken or bent at their junctures with the thimbles, and both life and increased effectiveness added to the broom, while at the same time they add considerably to the rigidity and strength of the entire structure, and neatness to its appearance.

Although in the claim I term the elements 1 as "bristles," I do not restrict myself to the strict definition of the expression, but embrace in the same any suitable material for sweeping purposes, whether bamboo sticks, wires, broom-corn or bristles strictly speaking.

The channel strips 12 and the guard wires carried thereby may also be applied to other kinds of brooms than those the heads of which are composed of metal plates as herein set forth.

What I claim as my invention and for which I desire Letters Patent is as follows, to wit:

A broom comprising two flat parallel spaced plates each having a straight edge and two angularly disposed edges meeting at a point opposite the mid-length of the straight edge, each straight edged portion having a plurality of recesses paired with recesses in the other straight edged portion,

another pair of recesses being formed at the juncture of said angularly disposed edges, a handle having an end fitted in the last-named pair of recesses, bundles of bristles held in the other recesses, and means binding said plates in firm grip upon said bundles of bristles.

In testimony that I claim the foregoing invention, I have hereunto set my hand this 8th day of March, 1913.

GILBERT C. BEMIS.

Witnesses:
A. B. UPHAM,
R. W. FROST.