W. C. SPELLMAN.

Improvement in Brooms.

No. 120,791. Patented Nov. 7, 1871.

Fig. 1.

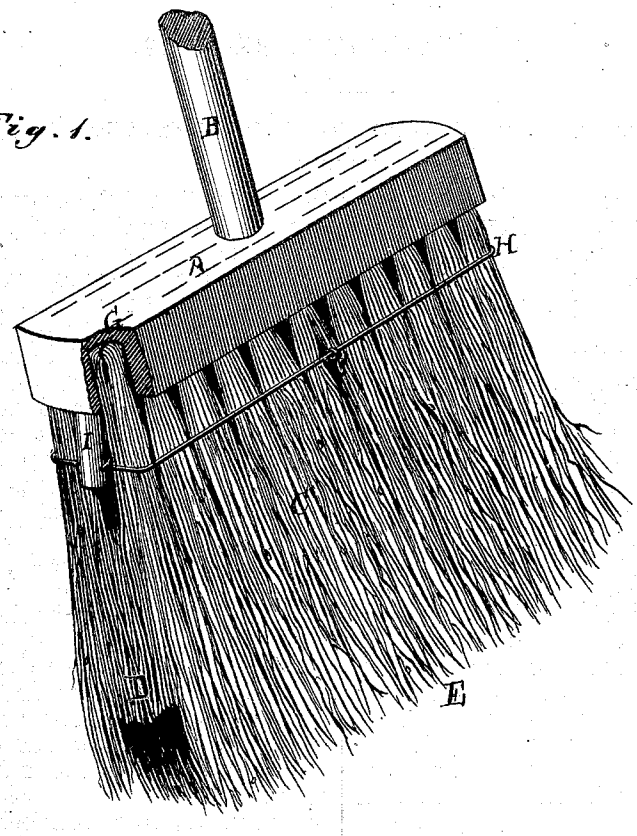
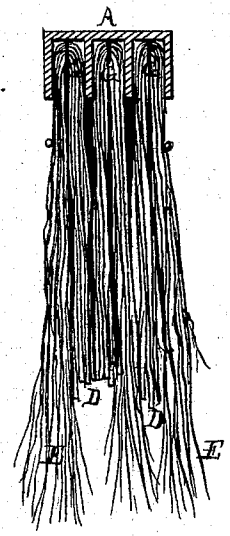


Fig. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM C. SPELLMAN, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN BROOMS.

Specification forming part of Letters Patent No. 120,791, dated November 7, 1871.

To all whom it may concern:

Be it known that I, WILLIAM C. SPELLMAN, of the city and county of Hartford and State of Connecticut, have invented an Improved Broom; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a perspective view of a broom constructed in accordance with my invention. Fig. 2 is a transverse section of the same.

Similar letters of reference in the accompanying drawing denote the same parts.

My invention has for its object to improve the construction of brooms, whereby they are rendered stronger and more durable than those now in use, and the cost of their manufacture materially reduced. The principal defects incident to the construction of straw or corn-brooms are, first, the want of security in attaching the brush to the broom-head; secondly, the want of stiffness in the brush after being attached; and, thirdly, the liability of the corn breaking at the point of its connection with the head. To overcome these defects, my invention consists: First, in doubling the straw upon itself so that both the butts and points shall form the brush. The straw thus doubled is arranged in clusters or bunches and the loop of each bunch, formed by bending the straw, is inserted in the broom-head and held in place by a cord or wire passing through it. By this construction, the butts being the strongest and arranged in the center of the brush, resist the pressure of the points in sweeping, and, therefore, stiffen the whole body of the broom. While the doubling of the straw adds to the stiffness of the broom, it greatly reduces the cost of the manufacture, because it requires but half the quantity of straw employed in the ordinary construction. The invention consists, secondly, in attaching the strengthening-wire or band to the broom-head by means of short wooden posts projecting from the under side of the latter at each end. I am, of course, aware that strengthening-wires and bands have been applied to brooms, but instead of being attached to wooden posts they have been secured to the broom by short wire stays, which stays are either soldered to the bands or looped over them. This method of attaching the bands, however, is defective, for the reason that the motion of the broom in the act of sweeping will bend and break the wire stays or detach them from the bands. This liability to breakage is greater, of course, as the length of the stay is increased. To operate at all, the stays must be very short, and if very short the strengthening-band becomes of no advantage whatever. By the employment of wooden posts, as I propose, the bands are held at all times perfectly rigid at the ends of the broom, and consequently prevent the corn from bending or yielding when the broom is in use. The posts can also be made of any length desired without either the danger of breaking or yielding to the motion of the straw in the broom-head, and, as a consequence, much longer corn can be employed than with the wire stays. The cheapness of the wooden posts over the wire stays adds to the advantages of my improvement, because it still further reduces the cost of manufacture.

In the accompanying drawing, A is the broom-head; B, the handle; and C, the broom. The straw composing the broom is doubled, as shown, so that the butts D and points E shall form the body thereof, the former being somewhat shorter than the latter and placed in the center, or, rather, between the sides of the broom. The clusters or bunches of bent corn are secured to the broom-head by inserting the loops formed by such bending within recesses in the under side of the head, and then passing a wire or cord, G, through them. When the wires are tightened the loops are drawn firmly within the recesses and locked securely in place without other fastenings. Such is the arrangement of the corn that the butts, as shown in Fig. 2, resist pressure from the outside points, and therefore increase the stiffness of the broom materially. H is the strengthening-wire or band, one or more of which may be employed, passing around the broom a short distance below the head, and held securely in place by means of the wooden posts I projecting from the under side of the broom-head at the ends. The strengthening-wire is secured to the posts by being passed through the holes in the latter, its ends being bent over or clinched, as shown. By this construction the posts hold the strengthening-wire securely in place and prevent the corn from moving or yielding in the head. If desired, the center of the

band or wire may be still further strengthened by the transverse wire J passing through the corn.

Long or short posts may be employed, as preferred, according to the length of the corn, and in either case their rigidity remains the same, and precludes the possibility of the bands or wires being broken or displaced.

I do not confine myself to the use of wooden posts in brooms constructed as above described, as they may be applied to many other forms without departing from the principle of my invention.

Having thus described my invention, what I claim as new is—

1. A broom, composed of corn doubled upon itself and inserted in the head so that both the butts and points constitute the body or brush, substantially as described, for the purpose specified.

2. In combination with a broom and its strengthening-wires or bands, the wooden posts I, substantially as described, for the purposes specified.

3. The broom-head, consisting of the doubled corn inserted in the head, as described, the strengthening-wire or band, and the wooden posts I, as herein set forth.

W. C. SPELLMAN.

Witnesses:
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(22)