W. P. NEWELL.

BROOM.

APPLICATION FILED NOV. 20, 1916.

1,232,832.

Patented July 10, 1917.

2 SHEETS—SHEET 1.

FIG. 1.

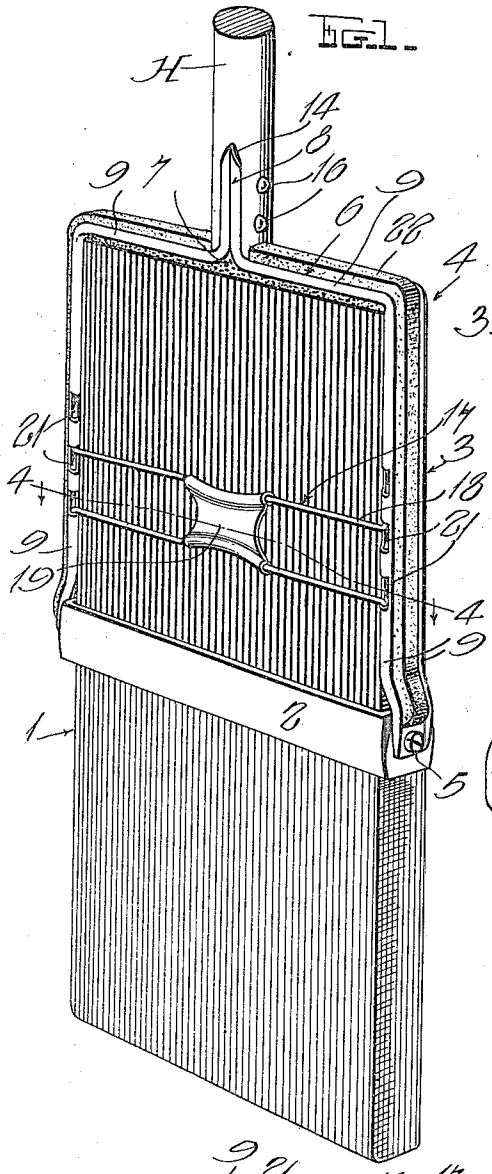


FIG. 3.

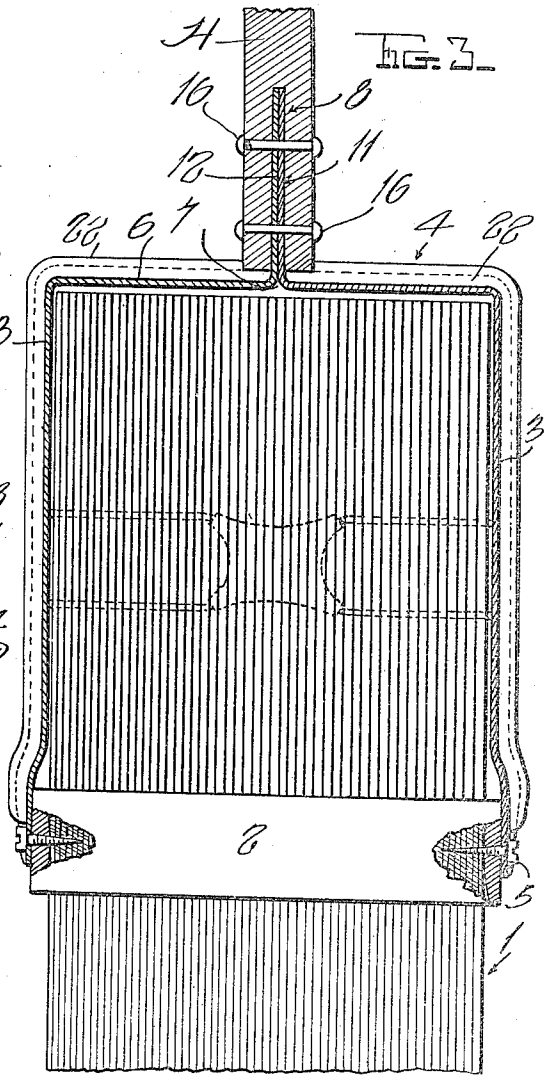
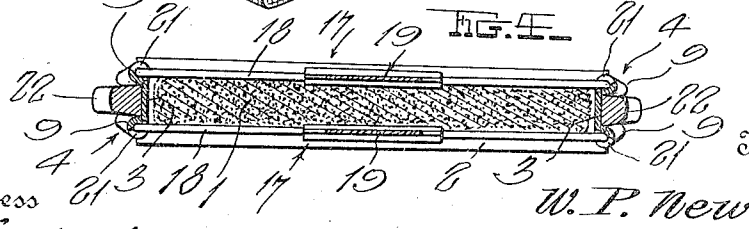


FIG. 4.



Witness
H. Woodard

Inventor
W. P. Newell

By H. Bowerman & Co

Attorneys

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2 SHEETS—SHEET 2.

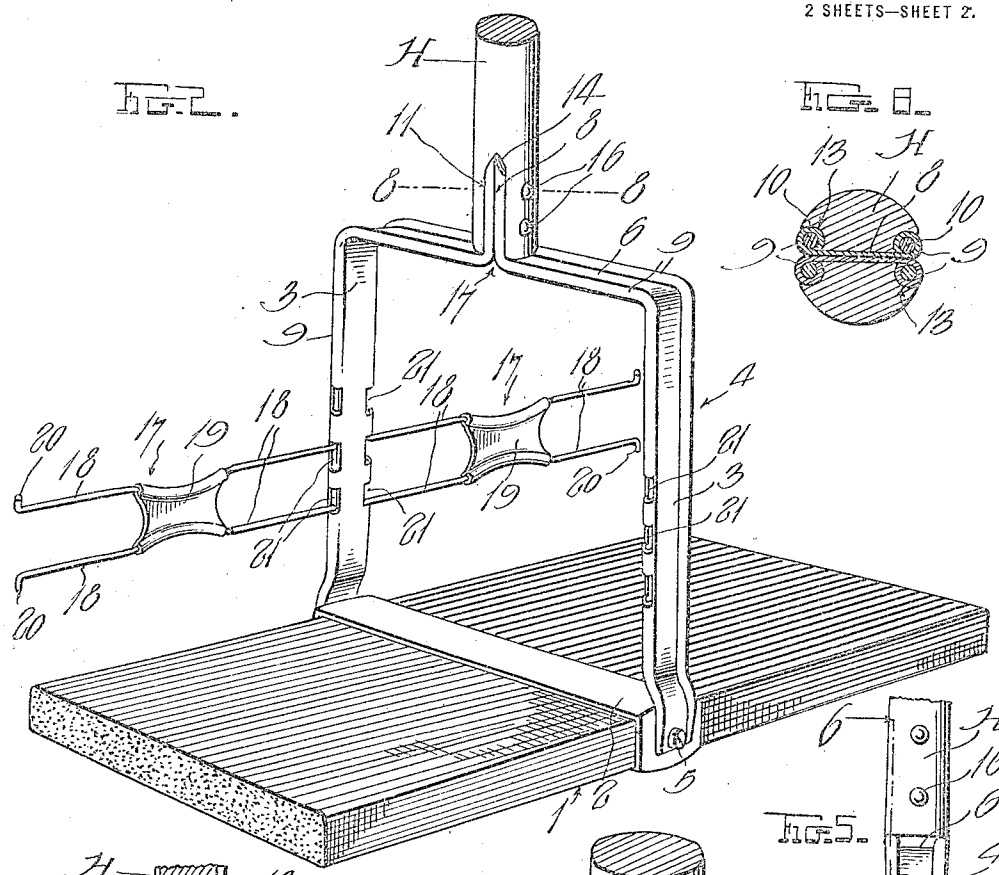


FIG. 1.

FIG. 8.

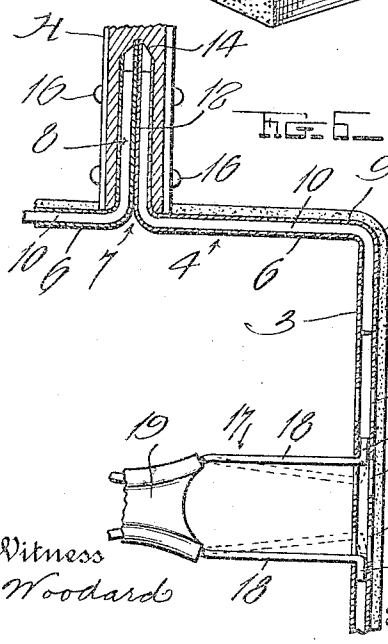


FIG. 6.

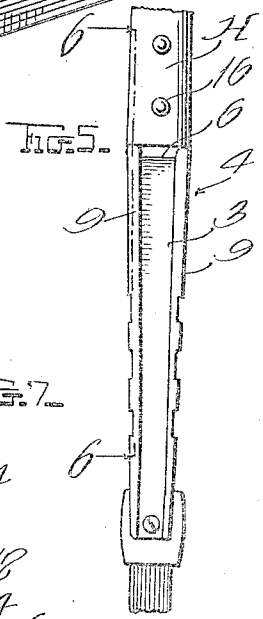


FIG. 5.

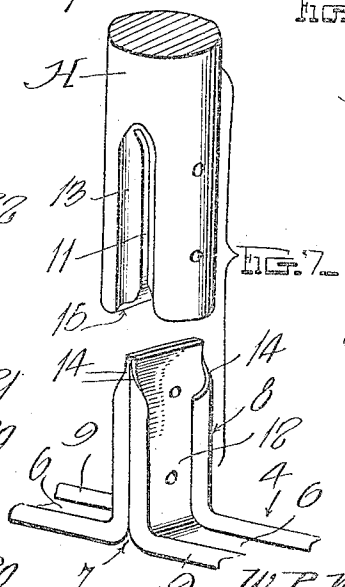


FIG. 7.

Witness
H. Woodard

Inventor
W. P. Newell
By H. B. Williamson & Co
Attorneys

UNITED STATES PATENT OFFICE.

WARREN PARKER NEWELL, OF BEATRICE, NEBRASKA.

BROOM.

1,232,832. Specification of Letters Patent. Patented July 10, 1917.

Application filed November 20, 1916. Serial No. 132,390.

To all whom it may concern:

Be it known that I, WARREN PARKER NEWELL, a citizen of the United States, residing at Beatrice, in the county of Gage and State of Nebraska, have invented certain new and useful Improvements in Brooms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in broom structure, particularly that having a head pivoted intermediate its ends so that in effect two brooms are formed.

The principal object of the invention is to provide a novel and simply constructed yoke for mounting the broom head.

An additional object is to provide an improved means for attaching the handle to the yoke.

With these and other objects in view, the invention resides in the novel features of construction, combination and arrangement of parts which will be more particularly set forth in the specification and claims and shown in the accompanying drawings wherein:

Figure 1 is a perspective view of a broom constructed in accordance with my invention;

Fig. 2 is a similar view showing the parts arranged in inactive position;

Fig. 3 is a central vertical longitudinal section;

Fig. 4 is a horizontal section on the line 4—4 of Fig. 1;

Fig. 5 is an edge view of a portion of the invention;

Fig. 6 is a vertical section on the line 6—6 of Fig. 5;

Fig. 7 is a detail perspective view of the lower end of the handle and the adjacent portion of the yoke of the broom; and

Fig. 8 is a horizontal section on the line 8—8 of Fig. 2.

Referring more particularly to the several figures of the drawings, the numeral 1 designates a broom head formed of a number of straws or the like and held together by means of a band 2 which surrounds said bundle intermediate its ends. The length of the straws on each side of the band is preferably equal, the straws on one side being merely a continuation of those on the other, thus providing two brooms, the straws of one of which are much coarser than those of the other.

The two-part broom head is provided between the free ends of the arms 3 of a yoke 4 as shown at 5, the length of the arms 3 being substantially equal to the length of the straws on each side of the band 2. By pivoting the broom head between the arms 3, the former may be revolved whenever it is desired to change from a broom having fine straws to one formed of coarse straws.

The yoke 4 is formed from two L-shaped members, each of which is formed by bending a single metal strip into a right angle, thereby producing the arms 3 and 6, the latter forming the top of said yoke. The free ends of the last mentioned arms 6 are bent laterally outward into engagement with each other as shown at 7 to produce a two-part tang 8. The longitudinal edges of each of the strips forming the two-part yoke are bent outwardly to form rolls 9, the same extending from end to end of the strips. This construction merely reinforces the yoke and permits the same to be formed from very light sheet metal. Still further reinforcing means are provided, however, in the form of the wires 10 which are inclosed in the rolls 9.

An ordinary cylindrical wooden handle H of suitable length is adapted to be secured to the tang 8, the end of the handle being slotted as at 11 to receive the flat portions 12 of the ends of the strips which form the tang. The opposite sides of this end of the handle H are recessed as at 13, said recesses communicating with the slot 11 and adapted to receive the rolls 9. The rolled portions at the free ends of the tang 8 are cut away on an incline as will be seen at 14. In order that the lower end of the handle H may fit tightly against the arms 6, said handle is fashioned as shown at 15. Rivets or other fastening elements 16 extend through the handle and tang 8 to securely hold the two parts together. It will be seen that while the connection between the handle and the tang 8 is of very simple nature, it is also extremely strong, since the rolled portions 9 thereof are securely inset in the handle.

The broom head is locked in position by means of cross arms 17, two being provided, one on each side of the bundle of straws. Each of these cross arms is formed of a

pair of spring wires forming fingers 18 connected intermediate its ends by a plate 19, the ends of the wires on each side of said plate being adapted to spring apart. The ends of each wire of each of the cross arms are bent laterally outward as shown at 20, these outwardly bent ends being disposed in elongated slots 21 which are cut in the rolls 9 of the arms 3 preferably centrally the ends thereof. Any number of slats 21 may be formed in each edge of each arm, three being shown in the drawings, thereby allowing the cross arms to be moved into various positions with respect to the band 2. The ends of said arms may be disposed in the outermost pair of slots when the straws of the broom head are full length, but as they become worn, said arms may be moved so that their ends will be positioned in the innermost pair of slots.

From the foregoing it will be seen that by rolling the edges of the arms of the yoke the same are not only strengthened, but slots may be readily provided for the ends of the wires forming the cross arms 17. Still further use may be made of these rolled portions which, it will be noted, extend outwardly, by utilizing the space between the same as seats for bumpers or cushioning members 22. These members are preferably placed only on the arms 3 and extend beyond the rolled portion so as to prevent engagement of the metallic members of the broom with furniture. The cushioning members are made of rubber or other resilient material and are held in the seats in any preferred manner.

The foregoing describes the preferred manner of constructing my improved broom, this structure being illustrated in the accompanying drawings, but various changes may be made within the scope of the appended claims without departing from or sacrificing any of the principles of the invention.

I claim:

1. In a device of the class described, a broom body, a yoke having its sides pivotally connected with the ends of said body, the edges of said sides being rolled, each of the rolled edges having a plurality of elongated slots, a cross arm for each side of the broom body, each including two pairs of spring fingers, the extremities of the fingers being bent laterally and adapted to be sprung into any two adjacent slots in the rolled edges, and a handle secured to the yoke.

2. In a device of the class described, a broom body, a two-part yoke, each part being formed of a single L-shaped strip, one arm of each strip being pivoted to the body member, the other arms forming the top of the yoke, the free ends of the last mentioned arms being bent laterally to provide a two-part tang, the edges of said strips being rolled, a handle having its end slotted to receive the flat portions of the two-part tang, the opposite sides of the handle also being recessed to receive the rolled edges of the parts of the tang, and fastening elements extending through the slotted end of the handle and the tang.

3. In a device of the class described, a broom body, a two-part yoke, each part being formed of a single L-shaped strip, one arm of each strip being pivoted to the broom body midway its ends, the other arms forming the top of the yoke, the free ends of the last mentioned arms being bent laterally to provide a two-part tang, the edges of said strips being rolled, said edges being provided with a plurality of elongated slots, a handle having its ends slotted to receive the flat portions of the two-part tang, the opposite sides of the handle also being recessed to receive the rolled edges of the tang, fastening elements extending through the slotted end of the handle and the tang, and a cross arm for each side of said broom body, each including two pairs of spring fingers to be disposed in said elongated slots.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WARREN PARKER NEWELL.

Witnesses:
J. T. HARDEN,
H. H. WATTE.

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