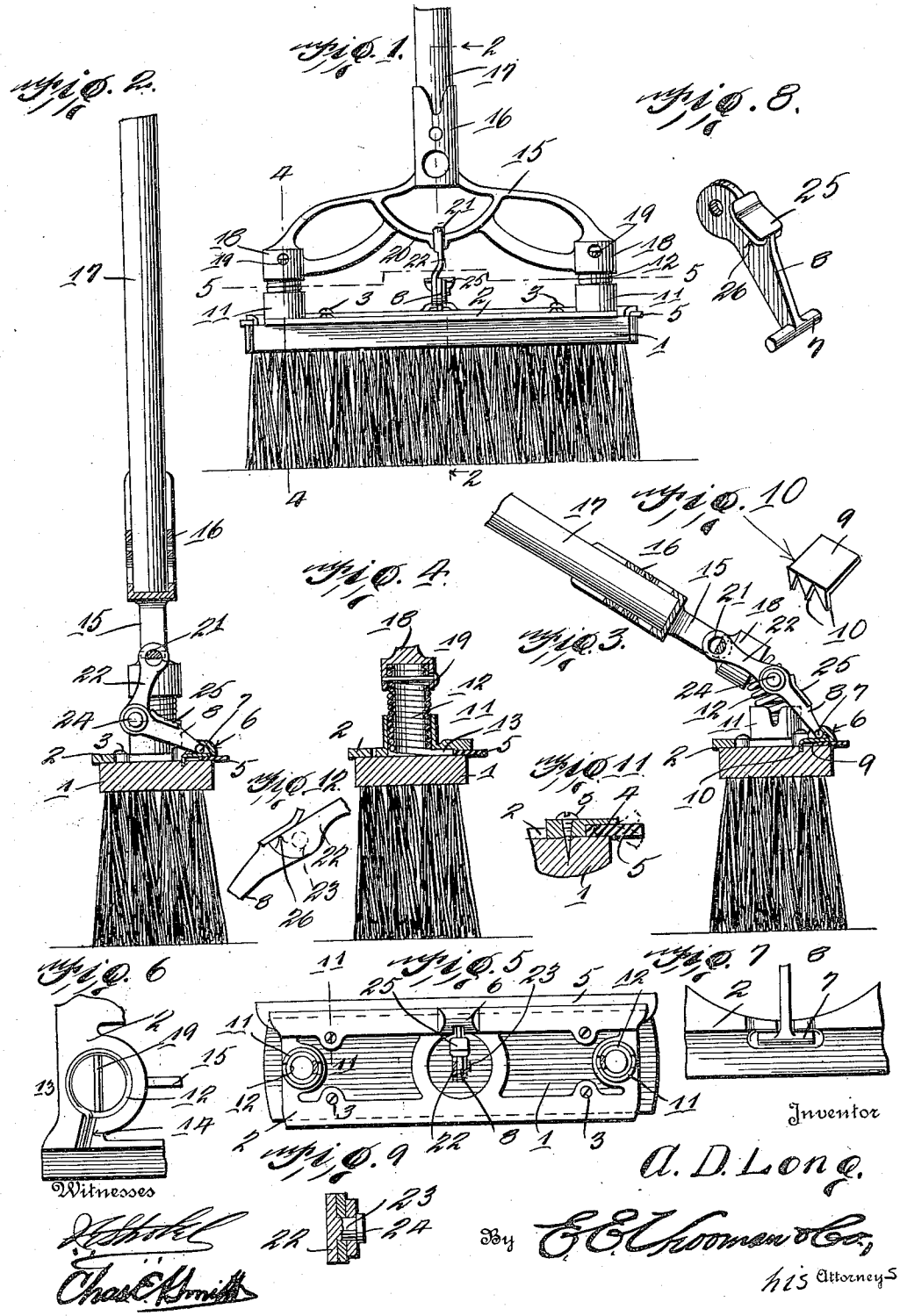
A. D. LONG.

BRUSH AND BROOM HANDLE.

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Patented Nov. 7, 1916.



Witnesses

Chas. E. Smith

Inventor

A. D. Long.

By E. G. Siggers & Co.,

His Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ARTHUR D. LONG, OF FAIRFIELD, IOWA.

BRUSH AND BROOM HANDLE.

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To all whom it may concern:

Be it known that I, ARTHUR D. LONG, a citizen of the United States of America, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented certain new and useful Improvements in Brush and Broom Handles, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to brush and broom handles, and has for its object the production of a simple and efficient broom which will be yieldably mounted upon the supporting handle so as to permit the broom to yield while the same is in operation.

Another object of this invention is the production of a simple and efficient means for locking the broom in a rigid position while being used as a wall brush or window washer.

With these and other objects in view this invention consists of certain novel combinations, constructions, and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawing: Figure 1 is a front elevation of the broom. Fig. 2 is a section taken on line 2—2, of Fig. 1. Fig. 3 is a section similar to that shown in Fig. 2 showing the handle swung at an angle and held in a locked position to the head of the broom. Fig. 4 is a section taken on line 4—4, of Fig. 1. Fig. 5 is a section taken on line 5—5, of Fig. 1. Fig. 6 is a bottom plan view of one end of the broom-head-carrying-frame. Fig. 7 is a bottom plan view of a portion of the broom-head-carrying-frame showing the manner in which one end of one of the locking links is held in engagement with the head-carrying-frame. Fig. 8 is a detail perspective of the primary locking link. Fig. 9 is a transverse section through the joint between the two locking links. Fig. 10 is a detail perspective of the journal plate constituting a bearing for one end of the locking links. Fig. 11 is a section taken on line 11—11, of Fig. 5. Fig. 12 is a side elevation of one side of the locking links showing the manner in which the locking links are limited in their swinging movement in one direction.

By referring to the drawing it will be seen that 1 designates the head of the broom which may be formed of the usual construction, and a head supporting casting or plate 2 is secured to the head of the broom 1 by means of screws 3 which pass through the frame 2. This frame 2 is provided along one edge thereof with a notch portion 4, under which notch portion 4 fits a rubber or other yieldable strip 5. The notch portion 4 extends longitudinally of the frame 2 and is spaced away from the upper edge of the head 1 of the broom, thereby constituting a pocket for efficiently holding the elastic or squeegee strip 5 in position. This strip 5 is especially used when washing windows and draining the water therefrom.

The casing 2 is provided with a housing 6 near the center thereof adjacent the notch portion 4, and this housing 6 is adapted to receive the laterally extending ends 7 of the primary locking link 8. The laterally extending ends 7 of the locking link 8 are also adapted to bear upon the journal plate 9, which journal plate is secured to the head 1 of the broom by having the spur portions 10 forced into the head as clearly illustrated in Fig. 2 of the drawings. It will, therefore, be seen that this plate 9 which is formed of metal will constitute an efficient bearing surface for supporting the laterally extending ends 7 and prevent these ends from wearing into the head of the broom 1. It should be understood that this plate 9 may be renewed by a new plate should the same become worn or injured. It will be seen that this housing 6 will constitute a pocket for retaining the laterally extending ends 7 of the locking link 8.

The casing 2 is provided near each end thereof with a spring receiving pocket 11, within which spring receiving pocket 11 are adapted to fit the inner ends of the coil springs 12. These coil springs 12 are provided with projecting end portions 13, which projecting end portions 13 fit in the notches 14 formed upon the under face of the casing 2, thereby constituting an efficient means for retaining one end of the spring 12 in a proper position in view of the fact that the end 13 is clamped between the upper face of the head 1 of the broom and the lower face of the casing 2. As stated and as clearly illustrated in Fig. 1, one of these pockets 11 is placed near each end of the casing 2.

A handle supporting or engaging frame 15 is employed having a handle receiving socket 16, within which a handle 17 is mounted. The frame 15 is provided with a spring receiving socket 18 near each end

thereof, which sockets are adapted to fit over the sockets 11 and receive the upper ends of the springs 12 as clearly illustrated in Figs. 1 and 4 of the drawing. A transversely extending pin 19 passes through each of the sockets 18 and between a pair of the upper convolutions of the spring 12, and thereby constitutes an efficient means for holding the spring 12 within the sockets 18. The frame 15 is provided with a spaced arc portion 20, around which arc portion 20 passes the eye 21 of the auxiliary locking link 22. The auxiliary locking link 22 is provided with a projecting lug 23, which lug 23 is in turn provided with a flattened head 24, and the primary locking link 8 is journaled upon the lug portion 23, and the flattened head portion 24 efficiently retains the link portions 8 and 22 in pivotal engagement with each other.

By carefully considering Fig. 8 it will be seen that the link portion 8 is provided with a shoe 25 upon the upper face thereof to permit the convenient swinging of the links 8 and 22.

While the device is being used as a broom, the link portions 8 and 22 remain substantially as shown in Fig. 2, thereby allowing the handle 17 to remain yieldable with respect to the head of the brush when sweeping. Should it be desirous of using the device as a window washer or wall brush, and should it be desired to hold the head 1 at a rigid angle with respect to the handle 17, the operator may pull outwardly upon the shoe 25 and thereby swing the links 8 and 22 to the position shown in Fig. 3 of the drawing, and as the flattened portion 26 of the link 22 engages the shoe 25, the outward movement of the links will be limited, and in view of the fact that the pivotal connecting portions of the links has been swung beyond the central axis of the laterally extending portion 7 and the eye 21, the head 1 cannot be swung relative to the handle 17 unless the pivotal connecting portions of the links 8 and 22 are again swung inwardly to the position shown substantially in Fig. 2.

From the foregoing description it will be seen that a very simple and efficient device has been produced for permitting the head of the broom to be yieldably connected to the handle, thus permitting the head to yield slightly while under pressure, or when so desired the head may be rigidly hung and held at a certain angle with respect to the handle when used as a wall brush or window washer.

Having thus described the invention what is claimed as new, is:—

1. In a device of the class described the combination with a brush head, a handle, of a frame secured to said brush head, said frame provided with spring receiving sockets at its respective ends, a frame secured to said handle, and means carried by said frame secured to said handle and yieldably connected to said spring receiving sockets for yieldably holding said handle in engagement with said frame.

2. In a device of the class described the combination with a brush head, a handle, of a frame secured to said brush head, said frame provided with spring receiving sockets at its respective ends, a frame secured to said handle, means carried by said frame secured to said handle and yieldably connected to said spring receiving sockets for yieldably holding said handle in engagement with said frame, and means for locking said handle at a rigid angle with respect to said head.

3. A device of the class described comprising a brush head, a handle secured to said head, a plurality of sockets carried by said frame, a handle frame secured to said handle and provided with a plurality of sockets adapted to register with said sockets carried by said first-mentioned frame, and a coil spring positioned within each socket and being secured thereto within said sockets.

4. A device of the class described comprising a broom head, a frame secured to said broom head and provided with a socket near each end thereof, said frame provided with a notch upon the under face thereof adjacent each socket, a coil spring fitting within each socket and provided with a projecting end fitting in said notch, a handle frame provided with a plurality of sockets adapted to register with said first mentioned sockets, said coil springs fitting in said sockets of said handle frame, and a transversely extending pin carried by each socket of said handle frame for fixedly securing said coil springs within said sockets of said handle frame.

5. A device of the class described comprising a broom head, a handle frame, a pair of pivotally connected links secured to said handle frame and broom head respectively, and means carried by said links for limiting the outward swing in one direction and adapted to hold said handle at an angle with respect to said head when said links are forced outwardly.

6. A broom of the class described comprising a broom head, a frame, a handle frame coöperating with said first-mentioned frame, means for yieldably connecting said frames together, said first-mentioned frame provided with a housing formed thereon, a link pivotally secured to said frame within said housing, an auxiliary link pivotally secured to said handle frame, and means carried by said links for limiting the outward swing thereof in one direction for holding said handle at a rigid angle with respect to said head.

7. A broom of the class described comprising a broom head, a frame, a handle frame coöperating with said first-mentioned frame, means for yieldably connecting said frames together, said first-mentioned frame provided with a housing formed thereon, a link pivotally secured to said frame within said housing, an auxiliary link pivotally secured to said handle frame, means carried by said links for limiting the outward swing thereof in one direction for holding said handle at a rigid angle with respect to said head, a protector plate fitting under said housing and constituting a journal support for said link journaled within said housing, and said protector plate provided with a plurality of downwardly bent spurs for biting firmly into said broom head.

8. A broom of the class described comprising a broom head, a frame, a handle frame coöperating with said first-mentioned frame, means for yieldably connecting said frames together, said first-mentioned frame provided with a housing formed thereon, a link pivotally secured to said frame within said housing, an auxiliary link pivotally secured to said handle frame, means carried by said links for limiting the outward swing thereof in one direction for holding said handle at a rigid angle with respect to said head, a protector plate fitting under said housing and constituting a journal support for said link journaled within said housing, said protector plate provided with a plurality of downwardly bent spurs for biting firmly into said broom head, and one of said links provided with laterally extending ends for constituting a journal portion therefor within said housing.

9. A broom of the class described comprising a broom head, a handle frame, a link pivotally secured to said handle frame, a primary link pivotally secured to said first-mentioned link, means for pivotally securing said primary link to said broom head, said first-mentioned link provided with a flattened head, said primary link provided with a shoe formed upon the top thereof, and said flattened portion of said first-mentioned link adapted to engage the under face of said shoe for limiting the outward swing of said links in one direction.

In testimony whereof I hereunto affix my signature.

ARTHUR D. LONG.

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