

961,472.

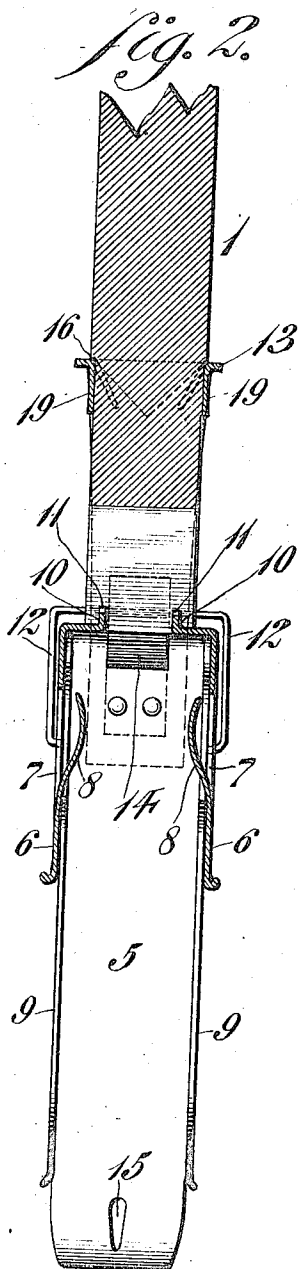
2 SHEETS--SHEET 1.



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S. G. WILSON.
BROOM HOLDER.
APPLICATION FILED JAN. 18, 1908.

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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BROOM-HOLDER.

961,472.

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To all whom it may concern:

Be it known that I, STEPHEN G. WILSON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Broom-Holder, of which the following is a specification.

This invention relates to an improvement in detachable holding devices for brush or broom heads and consists of a metallic frame secured to a handle and adapted to receive and firmly hold a broom body.

It further consists of an adjustable locking means, whereby brush or broom heads of different sizes may be placed in the holder and secured against displacement while the brush or broom is in use.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

For the purpose of explaining my invention, the accompanying drawing illustrates a satisfactory reduction of the same to practice but the important instrumentalities thereof may be varied and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a vertical sectional view of my novel brush or broom holder. Fig. 2 represents a vertical section on line $x-x$, Fig. 1. Fig. 3 represents a plan of the metallic strip blank on a reduced scale. Fig. 4 represents a brush head adapted for use in my holder on a reduced scale. Fig. 5 represents a plan of a portion of the initial frame before the handle is inserted.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings: 1 designates a handle having an end 2 so shaped as to provide a means to attach my novel holding means for the brush or broom body. This holding means consists preferably of a metallic strip 3 secured in any suitable manner, as by the screws 4, to the handle 1 and having extensions or arms 5 adapted to engage and grip the sides of a brush or broom body.

In order to prevent lateral displacement of the broom body the strip 3 carries side or wing members 6 which have struck up portions between the slits 7 forming on the surface spring jaws 8 which are adapted to be engaged by the broom body and allow the same a slight movement in either direction. This function is a very useful one as

it does away entirely with undue rigidity between the handle of the broom and the broom stub and gives a slight amount of spring retarded play or rocking movement but without looseness which makes the operation of the broom a very easy one. On the arms 5 are wings 9 projecting from each side of the said arms for the purpose of ultimate engagement with the sides of the broom body, supporting the upper part against undue lateral movement and preventing lateral displacement at its lower end. The wing members 6 and 9 are preferably formed integral with the strip 3, the entire holding structure being bent from a sheet metal blank, as disclosed in Fig. 3.

To hold the brush or broom heads of different sizes the arms 5 and wings 9 must be capable of adjustment, for which purpose the strip 3 is provided with struck up portions 10 having a series of teeth 11 formed thereon with which a loop member 12, in the present instance, secured to the wings 9, is adapted to engage and form an adjustable locking connection for the arms 5 against the brush or broom body. This engagement can readily be released by turning the handle portion down and pressing the arms 5 toward each other when the loops 12 are at once released from the teeth with which they have engaged.

For the purpose of pressing the broom body downwardly with its pins 21 within the openings hereinafter referred to in arms 5 and further for the purpose of reacting by this same pressure to press the arms 5 inwardly, I have provided spring arms 14 which are attached to the upper portions of the arms 5. It will be understood that the arms 5 are shown in Fig. 1 in opened position for reception of the broom body and that they normally tend to lie closer together at their lower ends than as there shown. The end of the springs 14 are carried down below this top member far enough to be engaged and pushed back as a body is inserted within the holder which action tends to swing the other ends of the springs 14 together, carrying with them the arms 5 to engage the sides of the brush. When the arms 5 have thus gripped the brush body, the loop 12 will have locked itself behind one of the projecting teeth and return of the arms 5 will not be possible. Should a brush body be inserted within the holder having a back that is not long

engage to engage the spring arms 14 the arms 5 of the holder may be brought together by hand until they have gripped the sides of the body when the same action will have taken place, the locking loops 12 fitting into a projecting tooth.

It will be noted that the arms 5 are provided with openings 15 preferably formed wedge shaped in order that when a broom body is used which is provided with lugs on the side, the same may be inserted in the larger end of the openings 15 and as the body is snapped into place the spring members 14 at the back press the same downwardly and tightly secure the lug members in the openings 15.

The strip 13 forms the means of support of the arms 5 from the handle 1, bracing it and at the same time being sufficiently resilient to allow these arms 5 to move as is above indicated, so that the loop 12 will engage with the proper one of the ratchet teeth 11. The outward pressure of the broom body maintains engagement of the loop with the face of the ratchet while the spring 14 presses the broom body downwardly, forcing the end pins in engagement with the lower part of the opening 15. Release can readily be effected by turning the broom upside-down and pressing the body gently against the springs 14, so that the loops fall away from the ratchet faces and the end pins of the body move into the larger portions of the openings 15 from which they can be readily disengaged.

In connection with the supporting strip 13 attention is called to the aperture 16 formed therein for the reception of the broom handle 1. This aperture is formed as illustrated in Fig. 7 by making diagonal cuts 17 and 18 in the center of the strip 13 by which four triangular shaped pieces 19, are formed and are adapted to be bent downwardly as indicated in dotted lines, Fig. 1. When the square end of a broom handle is pressed through the opening thus formed these triangular pieces 19 are pressed apart but in view of the spring like material from which they are formed, they tend to assume their normal position which gives them a firm grip upon the handle of the broom and holds it securely in place.

In Fig. 4 I have shown a conventional form of brush 20 for insertion within the case illustrated in the other figures of my drawing, and have provided this conventional form of brush with pins 21 for engagement with apertures 15 of the brush casing, at the same time that the top of the brush 22 is engaged by the springs 14.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a broom body holder, a handle, later-

ally movable arms, supports connecting the arms with the handle, latches locking said arms in adjusted position and springs bearing against the top of the broom body and connected with said supports, said arms engaging with the broom body to prevent longitudinal movement of the broom body in the holder.

2. In a broom body holder, a handle, a frame engaging said handle and provided with side wings, spring jaws upon said side wings for engagement with the sides of the broom body, movable arms for engagement with the edges of the broom body, and means for normally retaining said arms in engagement with the broom body.

3. In a broom body holder, a handle, a frame mounted on said handle and provided with side wings, springs on said wings for pressing against the broom body, movable arms on said frame for engagement with the body provided with means to prevent longitudinal movement of the body, springs connected with said arms and in position to be engaged by the top of the broom body, and means for holding the arms in closed position.

4. In a broom body holder, a handle, a transverse support secured thereto, transversely movable arms attached to said support and adapted for engagement with the broom body, springs engaging said arms and in position to press against the top of the broom body, and means for retaining the arms against outward movement.

5. In a broom body holder, a handle, a support engaging said handle, movable arms mounted on said support and provided with slots for engagement with projections upon the edges of the broom body, springs for engagement with the top of the broom body, and means for locking the arms in their inner position.

6. In a broom body holder, a handle, supports connected thereto, movable arms attached to said supports and provided with means for limiting longitudinal movement of the broom body, springs for engagement with the top of the broom body, latches engaging with said arms, and teeth with which said latches engage.

7. In a broom body holder, a handle, supports mounted upon said handle, wings for spring engagement with the sides of the broom body, movable arms for engagement with the edges of the broom body and provided with means for limitation of its longitudinal movement, and means for locking the movable arms in position.

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