S. G. WILSON.

TWO-PART WHISK.

APPLICATION FILED MAR. 6, 1913.

1,067,292.

Patented July 15, 1913.

Fig. 2.

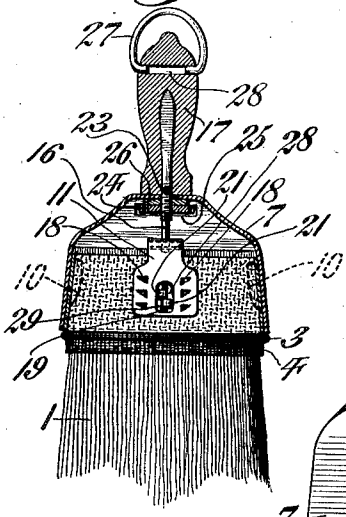


Fig. 1.

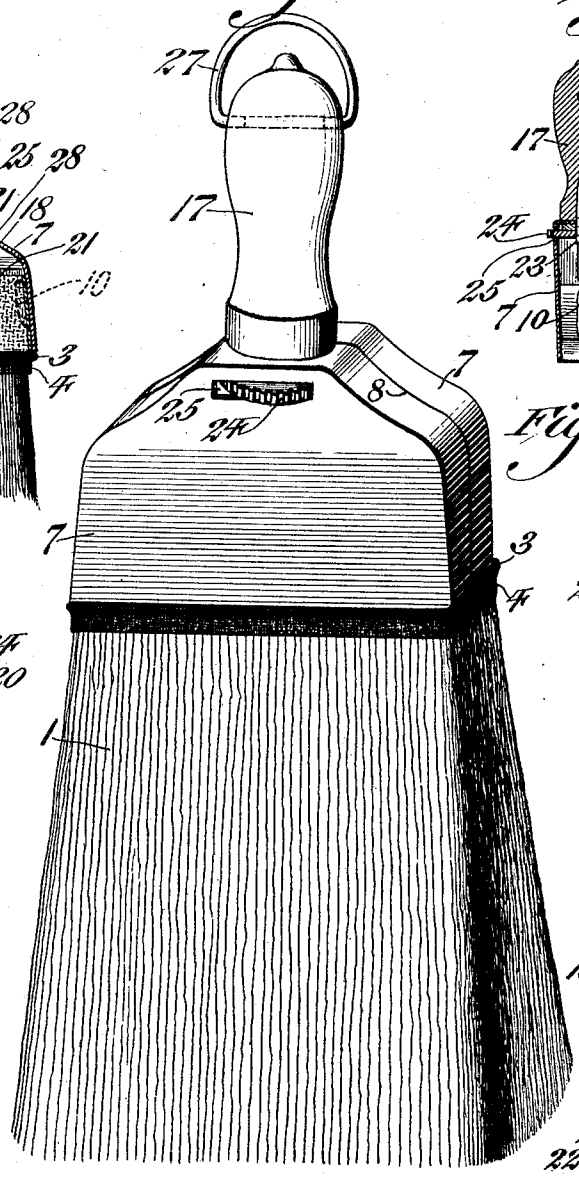


Fig. 3.

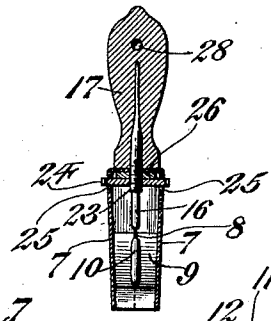


Fig. 5.

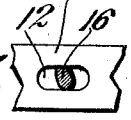


Fig. 4.

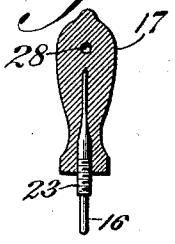


Fig. 9.

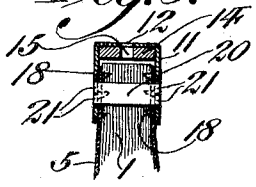


Fig. 10.

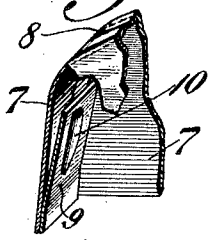


Fig. 7.

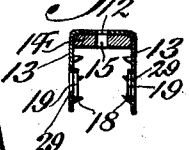


Fig. 8.



Fig. 11.

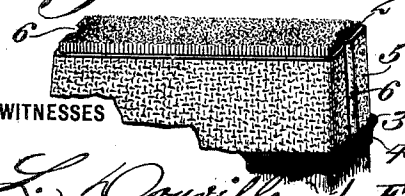


Fig. 6.

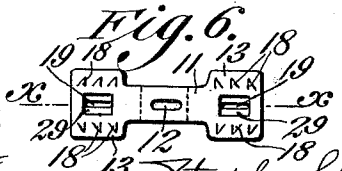
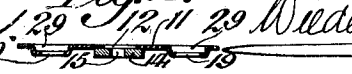


Fig. 12.



Fig. 13.



WITNESSES

L. Douville,

P. F. Nagle.

INVENTOR

Stephen G. Wilson.

BY Wildesheim & Fairbanks.

ATTORNEYS

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

STEPHEN G. WILSON, OF PHILADELPHIA, PENNSYLVANIA.

TWO-PART WHISK.

1,067,292. Specification of Letters Patent. Patented July 15, 1913.

Application filed March 6, 1912. Serial No. 681,868.

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 Two-Part Whisk, of which the following is a specification.

This invention relates to whisk brooms, brushes or the like and has for an object to provide a novel means of securing brush bristles to a holder whereby the life of the brush may be prolonged and its operation be made more effective.

It has for a further object to provide a construction wherein it is possible to readily and quickly replace worn bristles or other parts by new bristles or parts thereby permitting the indestructible parts being used indefinitely.

For the purpose of illustrating my invention, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Referring to the drawings, Figure 1 represents a perspective of a whisk broom embodying my invention. Fig. 2 represents a longitudinal section of a portion of the same on a reduced scale. Fig. 3 represents a section of the handle and holder showing certain details of construction. Fig. 4 represents a section of the handle. Fig. 5 represents a detail of construction showing a means of locking the handle in position. Fig. 6 represents a plan of a blank from which the retaining clip is formed. Fig. 7 represents a section of the retaining clip showing the same bent into its normal position. Fig. 8 represents a perspective of the locking pin for the retaining clip. Fig. 9 represents a section of the clip showing the same in position upon the brush body. Fig. 10 represents a detail of the holder showing the clamping device for the brush body. Fig. 11 represents a portion of the brush body showing a step in the method of construction. Fig. 12 represents a perspective of the lock nut. Fig. 13 represents a section on line *x*—*x* of Fig. 6.

Similar numerals of reference indicate corresponding parts in the figures.

1 designates the brush body of a sectional whisk broom embodying my invention, the same comprising and being made up of a plurality of bristles or fibers suitable for the purpose intended, and which after being cut to the proper length, are bound together by a plurality of binding cords 2 and 3 spaced apart a suitable distance, one of said cords as 2 being preferably in close proximity to one end of the brush body, as will be apparent from Fig. 11. The binding cord 3, in the present instance is of larger size than the adjacent binding cord 2 in order to form a shoulder or abutment extending around the brush body, the function of which will presently be brought out. After the bristles have been thus bound they are dipped or saturated with glue or like adhesive between the two binding cords 2 and 3, and preferably a short distance beyond the abutment 3, onto the body of the brush, as will be seen at 4, Fig. 11. A fabric 5 of suitable material is now wound about the bristles preferably contacting or abutting the binding cord 2 on one side and extending down over the binding cord 3 and terminating at the edge of the adhesive already applied. The partially completed brush body is then placed in a suitable mold where it is pressed and held until the adhesive is dry and it will be noted that this mold is so shaped as to form a groove 6, at two opposite sides of the body in order to coöperate with certain clamping members to be later described. In Fig. 11 the brush body is shown in its completed form after leaving the mold, and it will be noted that its sides converge from the bottom toward the top to properly fit the holder.

7 designates a holder or casing adapted to fit over the brush body 1 and, in the present instance, I have shown the same as formed in two parts, each of which is pressed to the desired form and jointed at 8 by means of solder or the like. In order to reinforce the joint so formed, I preferably braze or solder a spring clamp 9 to the meeting sides of the holder, the same being preferably of a width sufficient to act as a strengthening member and also have the function of a spring clamping member. In order to obtain this clamping action, it will be noted that the clamp 9 is bent inwardly so that in normal position it appears as

shown in Fig. 10 and therefore resists any force tending to bring it nearer the side of the holder 7. Each of these clamps 9 is provided with a lug 10 for the purpose of fitting within the respective grooves 6 of the brush body 1, and thereby prevent the said body from rocking or bending from one side to the other as the brush is manipulated in actual use.

11 designates a clip having an elongated opening 12 substantially at the center thereof, and side wings 13 bent in the same direction and spaced apart approximately the same distance as the dimension of the thickness of the brush body whereby the clip abuts the sides of the brush body when in position, while the connecting portion thereof rests adjacent the top of the brush body. The position this clip occupies is illustrated in Fig. 9, and it will there be noted that a block 14 is interposed between the top of the brush body and the clip 11, having an opening 15 in alinement with the aforesaid opening 12. This block strengthens and reinforces the clip 11 and provides a friction surface to receive the pin 16 of the brush handle 17.

18 designates a plurality of projections or teeth preferably formed integral with the clip 11 and inwardly disposed to form substantially a right angle on the upper side so that when the clip 11 is placed in position, as shown in Fig. 9, these teeth will pass into the brush body 1 and obtain a firm hold on the fabric 5 and on the said body. As a further means of anchoring the clip 11, I preferably provide an opening 19 in each wing 13, in alinement with each other and through which a locking member 20 may be inserted and fixed in position by bending over the ends 21, it being understood that the member 20 is provided with an initial slit 22 for the purpose as will be apparent. The pin 16 is fixedly secured within the handle 17 and has a portion of its length threaded, as shown at 23, in order to engage with the threaded locking nut 24 which is adapted to be inserted within an opening 25 in the holder 7, provided for the purpose. Between this locking nut 24 and the holder 7 a washer or separator 26 is provided to serve as a backing or reinforcement for the portion of the holder 7 which is engaged by the handle 17.

27 designates a suitable ring member preferably split in order that it may be snapped into the transverse opening 28 of the handle provided for the purpose, the function of the ring being of course to support the broom in any desired manner.

In Figs. 6 and 13 I have shown one form of clip blank wherein each of the side wings 13 is provided with a depressed portion 29 within which the ends 21 of the locking member 20 are seated whereby there are no projections or obstructions to interfere with the assembling of the article. It will be understood that preferably my novel whisk brush is formed of two parts one of which embodies the brush body 1 and its attached clip 11, while the other comprises the holder 7 and its adjuncts. Thus it will be apparent that the article may readily be assembled by bringing the holder 7 over the fabric covered end of the brush body 1 and pressing it down to its position abutting the binding cord shoulder 4. The handle 17 is next positioned by directing the pin 16 through the nut 24 and into binding relation to the slot 12. It will be noted that the pin 16 is elliptical or oval in cross section, the short diameter being substantially the same dimension as the width of the slot 12 whereby it may be locked in position by a simple turning movement to the right to bring the long diameter to the position indicated in Fig. 5. This action binds the part for all general purposes and prevents the handle working loose during the use of the article.

Attention is particularly directed to the novel detachable feature of the holder 7, as this forms a material part of the invention, and by means of the simple construction shown, the holder may, at any time, be readily detached in order to insert a new brush body for an old or worn out one. The attaching of the holder to the brush body is very simple, since it is only necessary to slip the same over the prepared end of the body, insert the handle pin 16 within the opening 12, and give a partial turn to the handle to lock the parts and then set the nut 24 to secure the handle to the holder 7.

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

1. In a device of the character stated, the combination of a brush body comprising a fabric covered portion having vertical grooves therein, a clip fixedly secured to said body brush, a holder, means on said holder to engage said grooves, a handle for said holder, and means on said handle for engaging said clip to retain said parts in assembled condition.

2. In a device of the character stated, a brush body comprising a fabric covered portion provided with vertical grooves and a clip extending across its top, said clip having a slot therethrough, a holder for said brush comprising a casing having internal projections to engage said grooves, a handle provided with a pin rotatably mounted in the upper wall of the casing and having a portion elliptical in cross section extending into said slot, the longest diameter being slightly greater than the width of the slot, and means to hold the pin in fixed position.

3. In a device of the character stated,

the combination of a brush body with a holder, means for detachably securing said brush body thereto comprising a clip secured to said body having an elongated opening therein, a handle for said holder, a pin in said handle extending into said opening and having one diameter slightly greater than the width of said opening, and means to hold said pin in fixed position.

4. In a device of the character stated, the combination of a brush body, with a holder, clamping means between said body and said holder, a clip secured to said body and having an elongated opening therein, a handle, a threaded pin in said handle having a portion adapted to fit within said clip opening and bind said part together when in a certain position, said portion in cross section being in the form of an ellipse whose longer axis is slightly longer than the width of said opening, and a nut to lock said handle to said holder.

STEPHEN G. WILSON.

Witnesses:
ROBERT M. BARR,
C. D. MCVAY.

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