

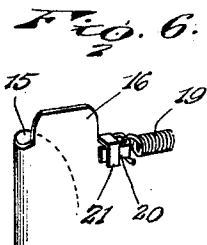
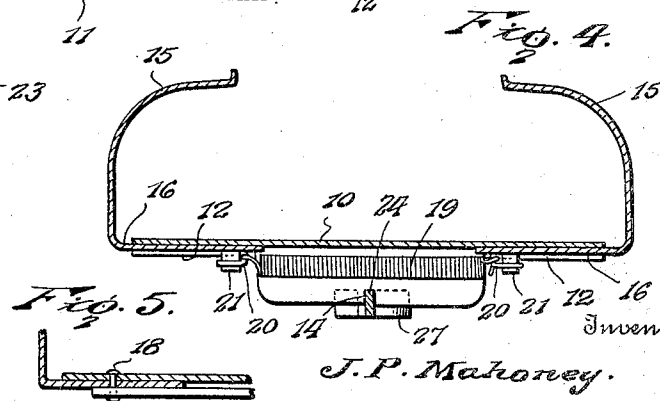
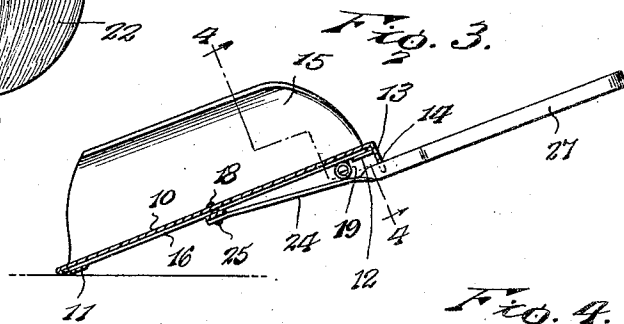
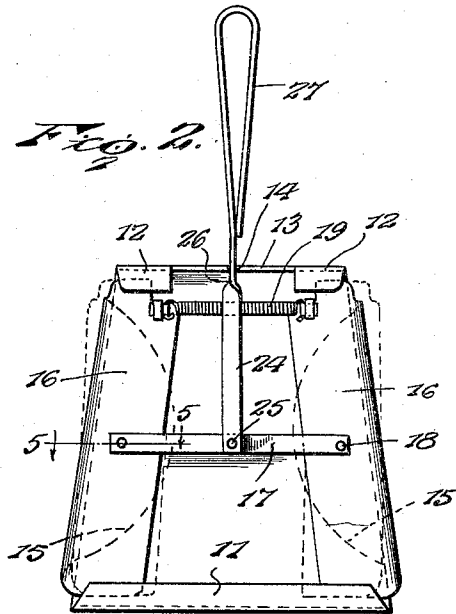
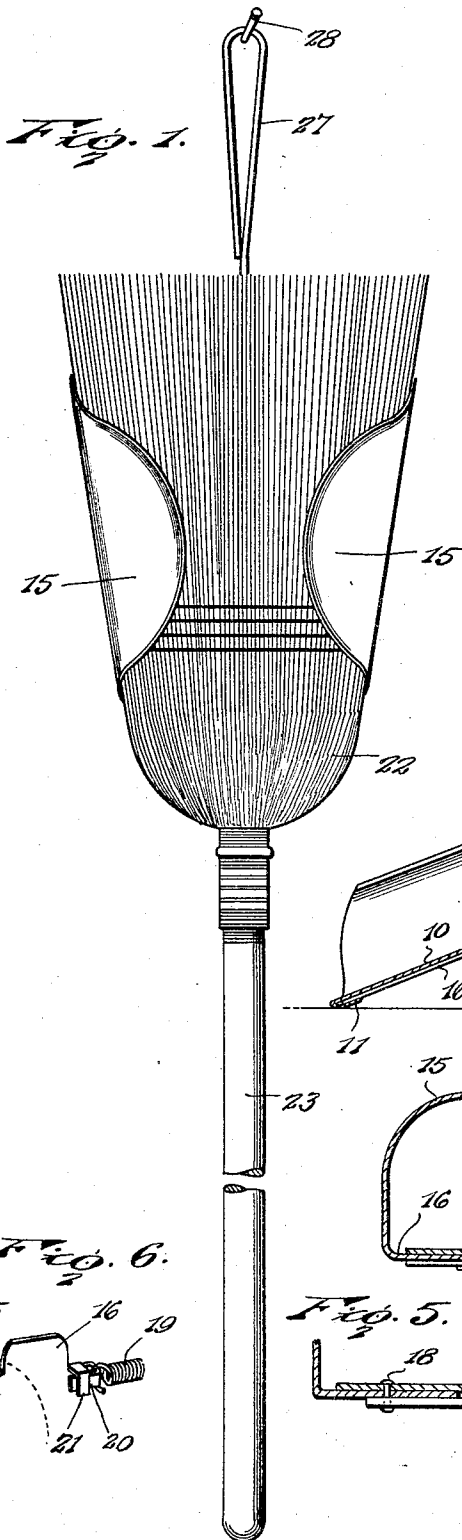
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COMBINATION BROOM HOLDER AND DUSTPAN

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UNITED STATES PATENT OFFICE

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COMBINATION BROOM HOLDER AND DUSTPAN

Application filed January 12, 1931. Serial No. 508,259.

This invention relates to combination broom holders and dust pans, of that general type described in my application filed of even date herewith.

5 An object of the invention is to provide a broom holder having lateral diverging flange elements which are pivoted centrally to a common back plate, the back plate having guide flanges at the wide end and at the narrow end for directing pivotal movement of the broom clamping flange elements.

15 A further object is to provide a broom holder in which, after removal of the broom, the handle of the device may be reversed and the device used as a dust pan, the back plate of the device being provided with an outstanding stop shoulder which is grooved to receive the pivoted handle and positively prevent accidental dislodgment of the handle from operative position when the device is used as a dust pan.

25 A still further object is to provide the broom clamping flange elements with a spring which resists pivotal movement of the elements, said spring being located adjacent to and parallel with said outstanding stop shoulder so that the latter extends beyond said spring and forms a protective guard for preventing injury to the spring when the device is used either as a broom holder or dust pan.

30 A still further object is to provide a device of the class described which will be composed of a minimum number of strong, durable parts which will be inexpensive to manufacture and will not easily get out of order.

35 With the above and other objects in view the invention consists in certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

40 In the accompanying drawing forming part of this specification:

50 Figure 1 is a front elevation of the device with the parts in position to suspend a broom from a suitable support,

Fig. 2 is a rear elevation of the device showing the handle reversed to provide a dust pan,

Fig. 3 is a longitudinal sectional view through the device with the handle positioned to form the dust pan,

Fig. 4 is an enlarged cross sectional view on the line 4—4 of Fig. 3, showing the spring and stop shoulder,

Fig. 5 is a fragmentary cross sectional view taken on the line 5—5 of Fig. 2 showing a pivotal connection between a flange element, the back plate and the handle securing bar, and

Fig. 6 is a detail perspective view showing the means for securing a terminal of the spring.

In carrying out the invention, I preferably provide a back plate 10 which is narrow at the rear edge and wide at the front edge, as shown. The front edge is bent back upon the plate to provide a guide flange 11 which extends throughout the width of the plate. The rear edge of the plate is bent back near the lateral edges to provide a pair of guide flanges 12, and that portion of the plate between said flanges is bent at substantially a right angle to the plate to provide a stop shoulder 13 which is notched, as shown at 14, Fig. 3, to receive the handle, hereinafter described.

A pair of broom clamping flange elements 15 are disposed to overhang the lateral portions of the back plate, as shown in Fig. 1. Each flange element is provided with a substantially straight base 16 which overlaps the back plate 10 with the end edges thereof received in the above mentioned guide flanges 11 and 12 of the back plate.

A cross bar 17, best shown in Fig. 2, is pivoted at each end by means of a pivot pin 18 to the bases of the broom clamping flange elements and to the back plate 10, as best shown in Fig. 5. The cross bar is disposed substantially midway between the front edge and rear edge of the back plate, so that the broom clamping flange elements 15 are centrally pivoted on the back plate. Said flange elements, as illustrated, diverge from the narrow end of the back plate to the front or wide end of the back plate.

A helical spring 19 is disposed substan-

tially parallel with the stop shoulder 13 and placed close to the shoulder so that the latter forms a protective guard which extends outwardly beyond the spring and prevents accidental injury to the same. Each end of the spring is secured to a corresponding broom clamping flange element by means, as shown in Fig. 6, of an angular lug 20 struck from the base 16 of the flange element and bridged at the open end by an angular lug 21, also struck from said base. The spring resists pivotal movement of the flange elements 15 and maintains the same in their normal positions to have a clamping action on the body 22 of the broom 23.

A handle 24, preferably formed of a single length of bar material, is pivoted at one end to the center of the cross bar 17 by means of a pivot pin 25, as best shown in Figs. 2 and 3. The handle is given a 90° twist, as shown at 26, and beyond the twist is looped back upon itself to provide a grip 27, which also constitutes an eye by means of which the handle may be suspended from a nail 28, or other hanger.

As best shown in Fig. 1, the handle may be swung on the pivot pin 25 to extend from the wide end of the back plate 10. The body 22 of the broom may be then passed, the handle foremost, between the flange elements 15, until the latter engage the body of the broom firmly enough to prevent the broom from falling out of the holder. Thereupon, the looped grip 27 may be hooked over the nail to suspend the broom therefrom.

By referring now to Fig. 2, it will be seen that after the broom is removed, the broom holder may be converted into a dust pan by simply reversing the handle 24 on the pivot 25 to project from the narrow end of the back plate. In this position of the handle, the twisted portion thereof near the grip passes into the above mentioned notch 14, as best shown in Fig. 2, formed in the stop shoulder 13, and is held thereby against accidental dislodgment, the resiliency of the bar 17 and handle 24 being sufficient to prevent the handle escaping from the notch until manually dislodged to again convert the device to a broom holder.

In operation, assuming the device to be in use as a broom holder, when it is desired to withdraw the broom from the holder, the handle 23 may be grasped and pulled downwardly, whereupon the body 22 of the broom will force the narrow ends of the flange elements 15 outwardly against the tension of the spring 19 and thus swing the elements on the pivots 18 until the body of the broom is completely detached from the holder, whereupon the spring will again return the elements to their normal positions.

It will be pointed out that during pivotal movement of the broom flange elements, the guide flanges 11 and 12 operate to accurately

direct the pivotal movement of the flanges, and at the same time perform the function of retaining stops to prevent accidental dislodgment of the broom clamping flange elements 15.

The device may be constructed of any desired material, either sheet metal, corrugated or otherwise, or any suitable composite material may be used.

From the above description, it is thought that the construction and operation of the invention will be thoroughly understood without further explanation.

Having thus described the invention, I claim:

1. A combined broom holder and dust pan including diverging broom clamping flange elements, a common back plate for the elements, pivots connecting the elements intermediate the ends thereof to the back plate, guide flanges formed at the opposite ends of the back plate and engaging said flange elements for directing the pivotal movement thereof, a spring connecting said elements and resisting pivotal movement of the elements, and a handle operatively connected to the back plate and adapted to be reversed to extend from either end of the back plate.

2. A combined broom holder and dust pan comprising lateral diverging flange elements, a common base plate overlapping the base portions of said elements, a cross bar disposed substantially centrally of the base plate and having the ends overlapping said base portions of the elements, pivot pins passed through the ends of said cross bar and through said base portions of the flange elements and through said back plate, said back plate being provided on one end edge with an out-turned stop shoulder having a notch therein, a handle pivoted to said cross bar intermediate the ends thereof and engageable in the notch in said shoulder, and a spring connecting the base portions of said elements adjacent to said stop shoulder.

3. A combined broom holder and dust pan comprising a back plate having guide flanges at the front and rear edges, lateral yielding broom clamping flange elements on the front face of the back plate received in said guide flanges, a cross bar on the rear face of the back plate, a pair of pivot pins, each pivot pin being passed through a respective flange element and through the back plate and through a respective end of the cross bar, a spring connecting the flange elements and resisting pivotal movement thereof, and a handle terminally pivoted to the center of the cross bar and adapted to be reversed on its pivot to extend from the front edge or the rear edge of the back plate.

4. A combined broom holder and dust pan including a back plate, lateral broom clamping flange elements on the front face of the back plate and pivoted to the back plate, a

pivoted handle disposed on the rear face of the back plate between the flange elements, a stop shoulder projecting at an angle from the back plate and having a notch adapted to receive said handle, and a spring operatively connecting the flange elements and resisting pivotal movement thereof, said spring being disposed substantially parallel to and adjacent to said stop shoulder, said stop shoulder forming a protective guard for preventing damage to said spring.

5. A combined broom holder and dust pan including a back plate, lateral diverging broom clamping flange elements pivoted to the back plate, said elements being disposed on the front face of the back plate, a bar handle terminally pivoted at substantially the center of the back plate and adapted to be reversed on its pivot to extend from either the front edge or the rear edge of the back plate, a spring connecting said elements on the rear face of the back plate and resisting pivotal movement of the elements, and a stop shoulder on the back plate having a notch, said bar handle having a twist and beyond said twist being looped back upon itself to provide a combined grip and securing loop, said handle adjacent to said twist being adapted to be received in said notch and be held thereby against accidental dislodgment.

6. A combined broom holder and dust pan comprising a back plate, lateral broom clamping flange elements pivoted on the back plate, a spring resisting movement of the elements, a cross bar operatively connected to the elements, and a reversible handle pivoted to said cross bar.

7. A combined broom holder and dust pan comprising a back plate, lateral broom clamping flange elements pivoted to the back plate, a spring resisting pivotal movement of the elements, a reversible handle operatively connected to the back plate, and projections on the back plate yieldably maintaining said handle in either of its reversed positions.

In testimony whereof I affix my signature.

JOHN P. MAHONEY. [L. s.]

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