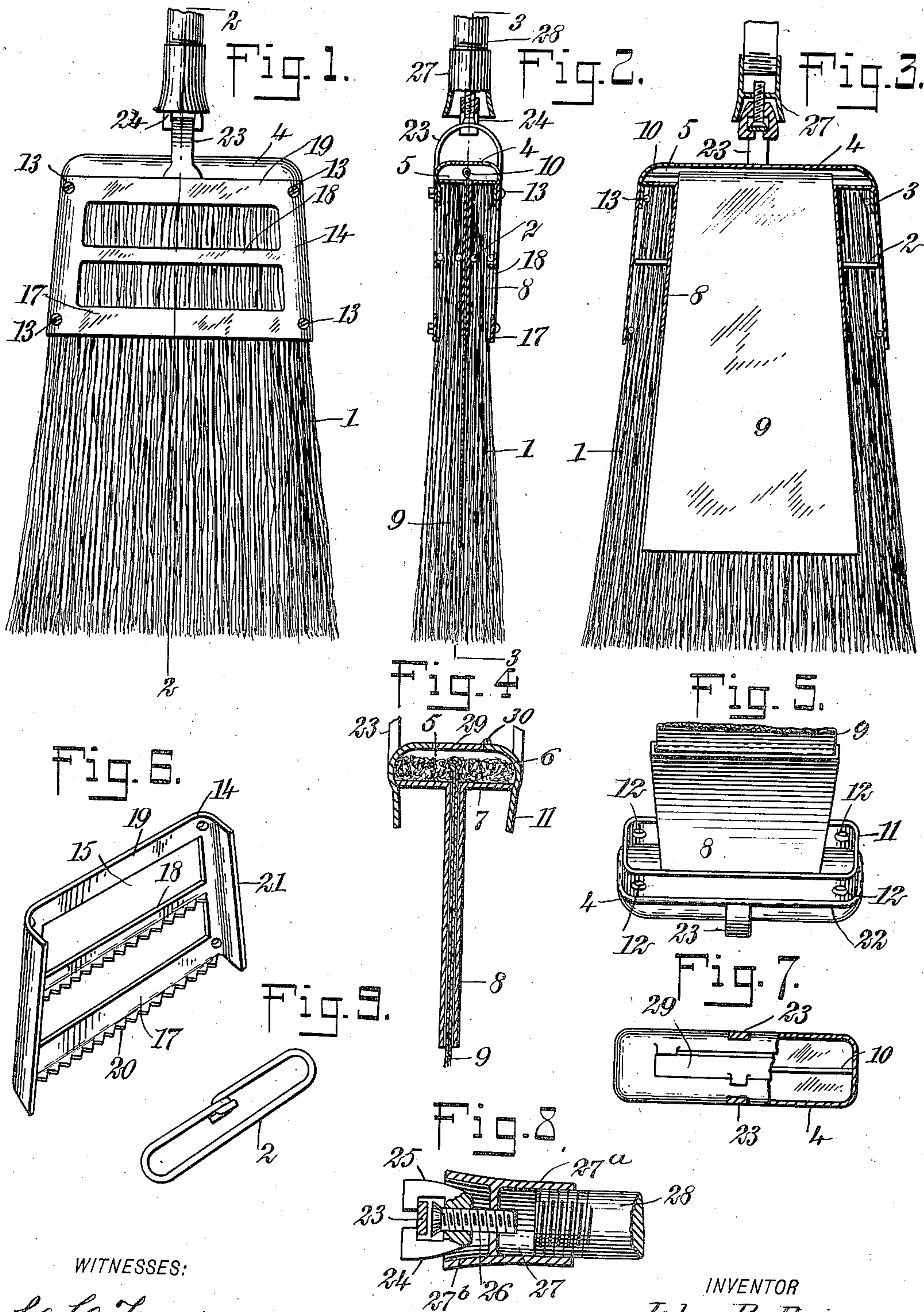


No. 841,045.

PATENTED JAN. 8, 1907.

J. R. PRICE.
DUSTLESS BROOM.

APPLICATION FILED DEC. 28, 1905.



WITNESSES:

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JOHN RICHARD PRICE, OF FOND DU LAC, WISCONSIN.

DUSTLESS BROOM.

No. 841,045.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed December 28, 1905. Serial No. 293,593.

To all whom it may concern:

Be it known that I, JOHN RICHARD PRICE, a citizen of the United States, and a resident of Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented a new and Improved Dustless Broom, of which the following is a full, clear, and exact description.

This invention relates to brushes and brooms.

The object of the invention is to construct such device in such a way that it will prevent the raising of dust when in use.

A further object of the invention is to construct the device so as to enable the handle to be adjusted upon the body of the brush and also to construct the body of the brush in such a way as to enable the straws or bristles to be easily reversed or replaced when worn.

The invention consists in the construction and combination of parts to be described more fully hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a broom constructed according to my invention, a portion of the handle being represented as broken away. Fig. 2 is a cross-section taken substantially on the line 2 2 of Fig. 1. Fig. 3 is a cross-section taken on the line 3 3 of Fig. 2. Fig. 4 is a cross-section taken in substantially the same plane as the section 2 2, but showing only the upper portion or bonnet of the broom-frame. This view is upon an enlarged scale. Fig. 5 is a perspective of the bonnet shown in Fig. 4, representing the same in an inverted position. A portion of an apron which is mounted within this bonnet is represented in this view as broken away. Fig. 6 is a perspective of a clamping-plate which constitutes a portion of the frame of the broom. Fig. 7 is a cross-section taken in a horizontal plane passing through the upper portion of the bonnet and representing a part of the bonnet as broken away. Fig. 8 is a longitudinal section through the lower portion of the handle and illustrating the manner of attaching the same to the broom-frame; and Fig. 9 is a perspective of a binder-wire, several of which are used in securing the straws of the broom to each other.

Referring more particularly to the parts, 1 represents the body of the broom, which is composed of broom-straw, bristles, or of a mixture of broom-straw and bristles. The character of these bodies will depend upon the circumstances and the nature of the work which the broom or brush is to perform. The straws forming the broom-body 1 are attached securely together in two sections by binding-wires 2. The upper portion of this body 1 is securely held in a frame 3, which is preferably constructed of sheet metal or similar material. This frame comprises a bonnet 4, which is of elongated rectangular form in plan, as shown in Fig. 7.

The upper portion of the bonnet is formed with a chamber 5, which constitutes a reservoir in which an absorbent material 6, such as raw cotton, is placed, as indicated in Fig. 4. From the bottom plate 7 of this reservoir or chamber 5 a sheath 8 extends downward, the same being preferably disposed on the longitudinal central line of the bonnet 4. This sheath is of greatly-elongated rectangular form, so as to form a sheath or guard for an apron 9, which passes downwardly therefrom and depends therebelow, as shown most clearly in Figs. 3 and 4. The upper extremity of this apron is attached to a longitudinal hanger bar or wire 10, which is disposed within the reservoir 5, as shown most clearly in Figs. 2 and 3. This apron is made of felt or similar material.

The lower portion of the bonnet 4 is formed with a downwardly-projecting flange 11, which extends continuously around the edge of the bonnet and is slightly offset inwardly, as indicated most clearly in Fig. 5. On opposite sides, preferably near the ends of the bonnet, this flange 11 is provided with openings 12, which are adapted to receive through-bolts 13, which afford means for attaching clamping-plates or clamps 14. These plates are preferably of skeleton form, one of them being clearly illustrated in Fig. 6. Each clamp consists, substantially, of a plate the body of which is punched out to form openings 15, forming transverse bars 17, 18, and 19. The bars 17 and 18 are preferably turned inwardly at their lower edges and formed with serrations or teeth 20 for a purpose which will appear hereinafter. The clamps are bent inwardly at their edges, so as to form flanges 21, and the edges of these flanges of the opposite plates are adapted to

abut, so that the two plates may clamp the upper portion of the broom-body therebetween, as illustrated most clearly in Fig. 2. It should be understood, however, that before clamping the plates upon the broom-body the sections of the same will be arranged on each side of the sheath 8. As indicated, the sheath 8 preferably enlarges in width toward its lower extremity, and this arrangement facilitates the securing of the straws of the broom, as suggested.

It will be understood that when the clamps 14 are put in position and held by the clamping-bolts 13 the upper edges of the clamp rest against a shoulder 22, which is formed around the bonnet 4 by offsetting the flange 11 inwardly, as described above.

At its middle portion the bonnet 4 is provided with a shackle 23, which is of bow form, as shown. Upon this shackle there is mounted a movable clip or saddle 24, the construction of which is very clearly shown in Fig. 8. This saddle presents oppositely-disposed arms 25, the extremities whereof turn inwardly, so as to engage the under side of the shackle. In the outer portion of the saddle a screw 26 is mounted the extremity whereof passes outwardly and is rigidly secured in a socket 27. In this socket is rigidly attached the handle 28 of the broom. This socket 27 is formed double, as shown, so that a socket 27^a is formed which receives the handle 28 and a socket 27^b is formed which receives the clip or saddle 25. Evidently by rotating the handle 28 the screw 26 (which is rigid therewith) will advance in the saddle 25, and its head will eventually clamp the clip upon the shackle. From this arrangement evidently the angular position of the handle with respect to the broom-frame may be adjusted as desired.

In order to enable the absorbent material 6 within the reservoir 5 to be renewed, I form the upper side of the bonnet 4 with a cover 29, which opens upwardly upon a suitable hinge 30, said cover consisting of an elongated rectangular plate, as indicated most

clearly in Fig. 7. It should be understood that the absorbent material 6 will be soaked with oil, and this oil will be absorbed by the apron 9 by capillary attraction, assisted to some extent by gravity. In this way the apron 9 is kept in a more or less oily condition when the oil finds its way onto the straws of the broom-body. In this way by reason of the slightly-adhesive properties of oil the dust will adhere to the broom-body or will collect readily upon the floor in advance of the broom.

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

1. A broom having a body composed of broom-straws with an apron depending in the interior of said body, and means for moistening said apron whereby moisture may be supplied to said straws to prevent the raising of dust.

2. In a broom in combination, a bonnet having a chamber constituting a reservoir, a sheath projecting downwardly therefrom, a body secured about said sheath, and an apron within said sheath and depending therebelow within said body.

3. In a broom in combination, a frame comprising a bonnet having a chamber formed therein adapted to receive an absorbent material, a sheath extending downward from the bottom of said chamber, a broom-body surrounding said sheath, clamping-plates attached to said bonnet and securing said body, and an apron within said sheath and depending within said broom-body.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN RICHARD PRICE:

Witnesses:

M. T. SIMMONS,
F. A. BOYD: