Dec. 15, 1931. R. YUTTS 1,836,102

DUSTER

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Fig. 1.

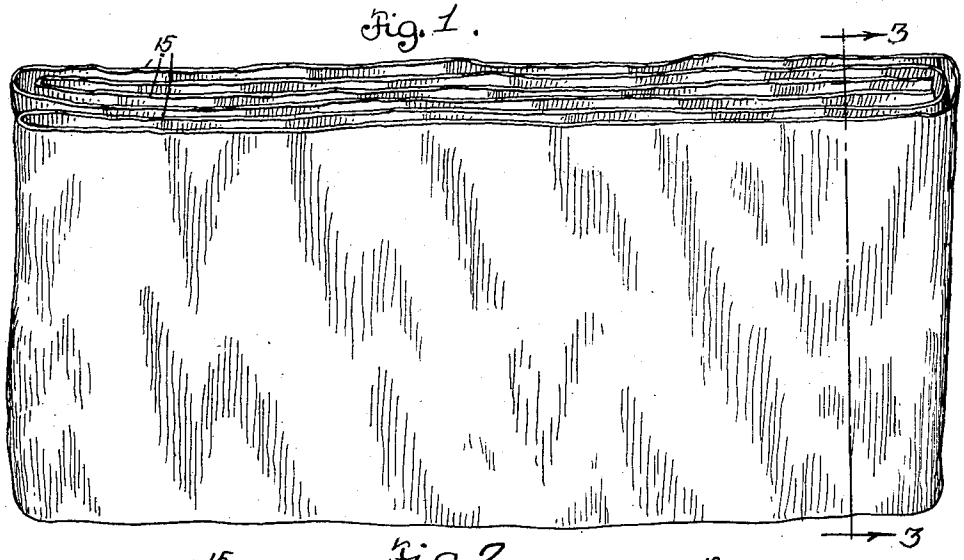
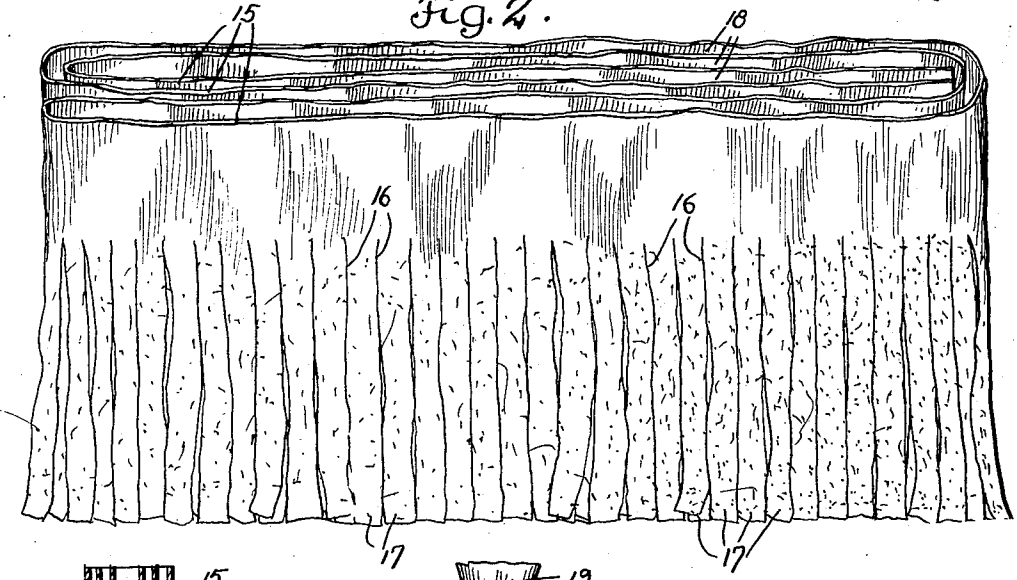


Fig. 2.



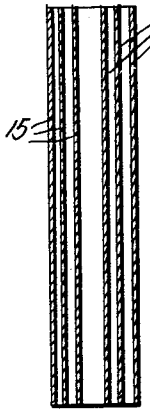


Fig. 3.

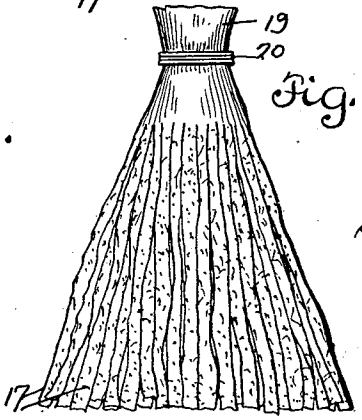


Fig. 4.

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DUSTER

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Fig. 5.

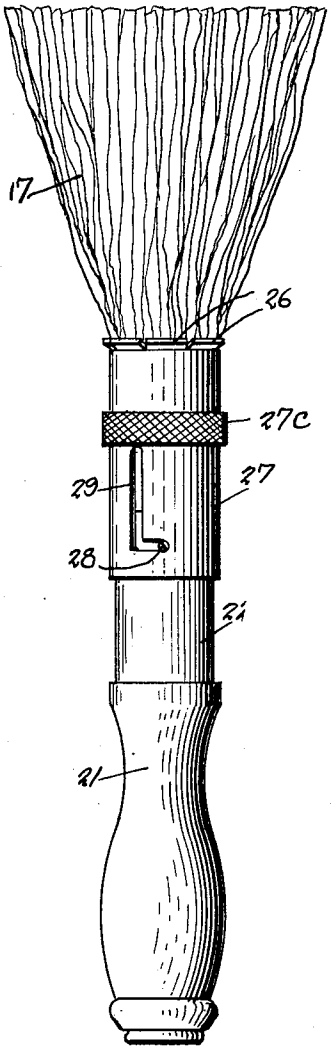


Fig. 6.

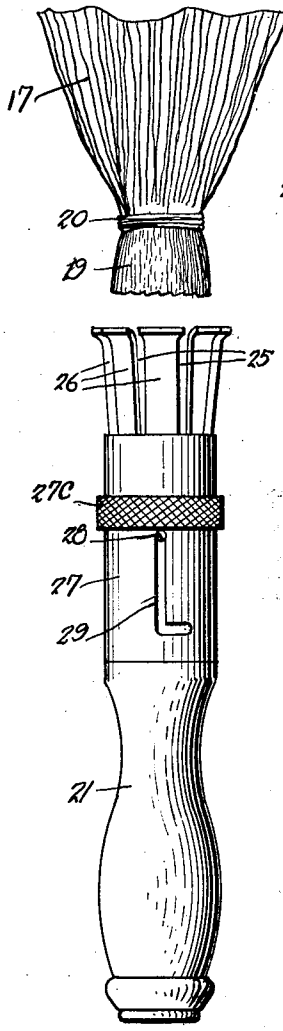


Fig. 7.

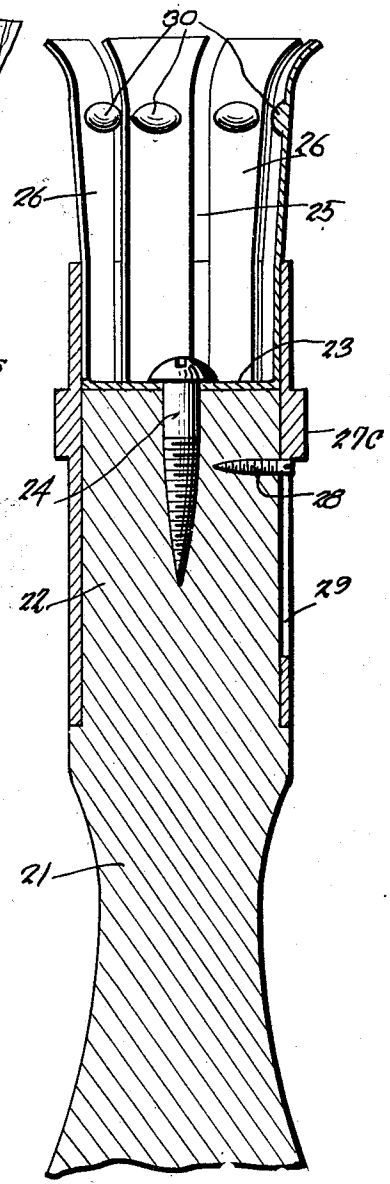
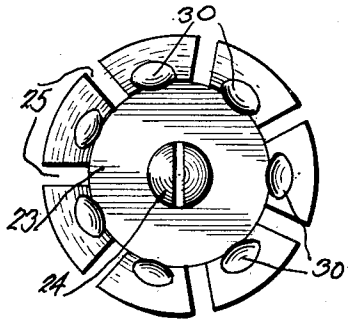


Fig. 8.



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Fig. 9.

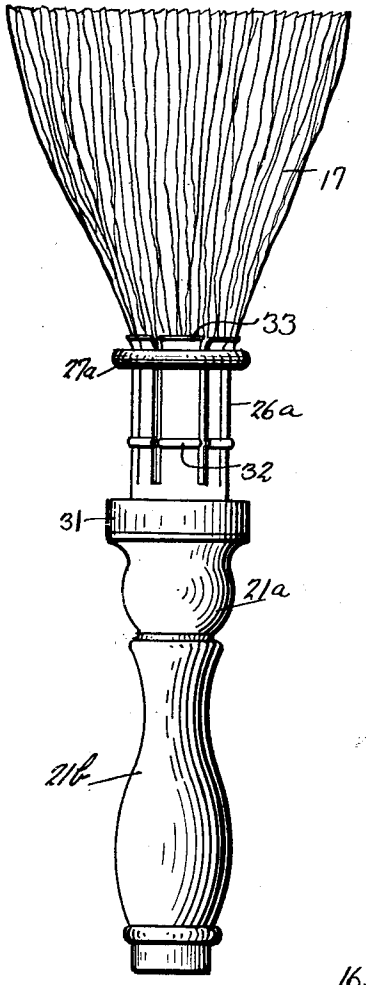


Fig. 10.

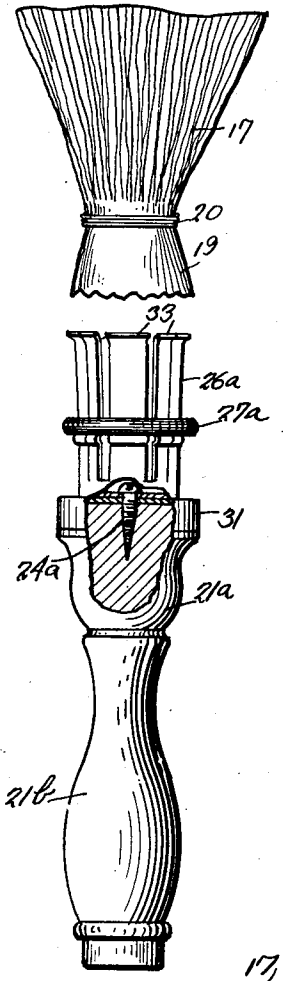
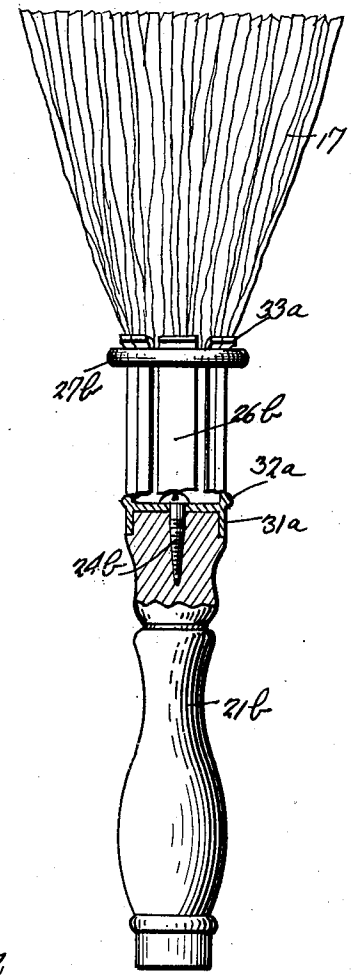


Fig. 11.



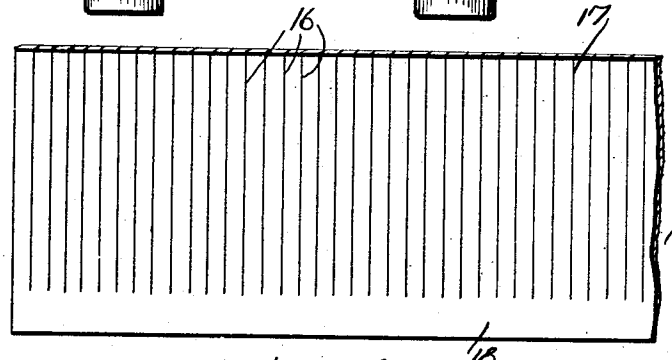


Fig. 12.

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Patented Dec. 15, 1931 1,836,102

UNITED STATES PATENT OFFICE

RALPH YUTTS, OF MIAMI, FLORIDA

DUSTER

Application filed July 2, 1931. Serial No. 548,412.

This invention relates to certain new and useful improvements in brushes or dusters.

The primary object of the invention is to provide a brush or duster especially designed for use in barber shops for brushing the neck and face of a person, the brush or duster head preferably being formed of paper and extremely inexpensive to produce so that the brush or duster head may be discarded after use on a single patron.

A further object of the invention is to provide a novel construction of handle for the detachable support of a brush or duster head so that the latter may be discarded whenever desired and a new brush or duster head substituted therefor.

It is a further object of the invention to provide a brush or duster wherein a handle is provided with an outwardly flaring frusto-conical socket member that is longitudinally slit to provide spring fingers with means associated with the spring fingers to move them into clamping position and in engagement with a brush or duster element that is removably mounted in the socket member.

A further object of the invention is to provide a brush or duster especially designed for use in barber shops wherein the brush or duster is formed of an elongated strip of paper foldable in the direction of the longitudinal axis thereof to provide superposed plies with corresponding edges of the plies slitted to provide bristles while the opposite unslitted edges are moved into form for attachment to a handle.

With the above and other objects in view that will become apparent as the nature of the invention is better understood, the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings and claimed.

In the drawings:—

Figure 1 is a perspective view showing an elongated strip of material folded in the direction of the longitudinal axis thereof to provide superposed plies; for forming the brush or duster element;

Figure 2 is a perspective view similar to Figure 1, showing corresponding longitudinal edges of the superposed plies slit inwardly to provide bristles;

Figure 3 is a vertical cross-sectional view taken on line 3—3 of Figure 1;

Figure 4 is a side elevational view of the slit plies moved into brush or duster head formation and so retained by a cord associated with the unslit edges of the plies.

Figure 5 is a side elevational view of a handle and socket member with which the brush or duster element is associated;

Figure 6 is a side elevational view, similar to Figure 5 showing the clamping ring for the spring fingers of the socket member moved inwardly upon the handle to release the spring fingers from clamping engagement with the brush or duster element, the latter being illustrated in spaced relation to the handle;

Figure 7 is an enlarged fragmentary longitudinal sectional view of the handle showing the clamping sleeve at its limit of inward movement and the pin and bayonet slot connection between the handle and sleeve;

Figure 8 is an outer end elevational view of the handle showing the cylindrical socket member with a gripping boss on each spring finger thereof;

Figure 9 is a side elevational view of another form of handle wherein the spring fingers of the tubular socket are moved to clamping position by a sliding ring with the spring fingers constructed to limit sliding movements of the ring in opposite directions;

Figure 10 is a side elevational view, similar to Figure 9, partly in section and showing the clamping ring in releasing position and the socket member supported upon a ferrule on the handle;

Figure 11 is a side elevational view, partly in section of another form of handle in which the socket member is directly attached to the handle; and

Figure 12 is a fragmentary perspective view of one of the plies of material forming the brush or duster element.

While the present invention may be used in any art where brushes or dusters are employed, the same is primarily intended for use in barber shops and beauty parlors as a

duster for removing hair from the face and neck of a person following the cutting of the hair, the object being to discard the duster head after use thereof upon one patron. The duster head may be constructed of any suitable material, it being preferable to use paper of either the plain or crinkled type, the duster being formed of an elongated strip of paper that is foldable in the direction of the longitudinal axis of the strip to provide superposed plies 15 as shown in Figures 1 to 3. Corresponding edges of the plies 15 as shown in Figures 2 and 12 are slit inwardly as at 16 to provide fibres or bristles 17. The unslit edges 18 are then crimped or folded in any preferred manner to provide a stock 19 and are so retained by a tying cord 20 or other fastening means, the brush or duster head as shown in Figure 4 being then ready for attachment to a handle. The slitting of the edges of the superposed plies may be accomplished after the strip has been folded to provide the superposed plies, or said strip before folding may be slit upon one longitudinal edge thereof.

One form of handle is illustrated in Figures 5 to 8, the reference numeral 21 designating a handle of any appropriate design having a cylindrical shank portion 22. A cylindrical socket member is secured to the outer end of the handle shank 22, the socket member comprising a bottom wall 23 through which an attaching screw 24 passes for entering the handle shank as shown in Figure 7. The annular side wall of the socket member is longitudinally slit as at 25 to provide spring fingers 26 and said socket member is of substantially frusto-conical formation with the spring fingers 26 flaring outwardly as illustrated. A sleeve 27 is slidably mounted upon the cylindrical shank 22 of the handle with the outer end thereof engaged with the spring fingers 26 the diameter of the sleeve 27 being less than the diameter of the outer ends of the spring fingers so that when the sleeve 27 is slid outwardly, the outer ends of the spring fingers are moved inwardly into clamping position.

In Figure 6, the sleeve 27 is illustrated at its limit of inward movement and the duster head in position to be inserted in the tubular socket member, the stock 19 being inserted in the outer end of the socket member and the sleeve 27 then slid outwardly to move the spring fingers into binding engagement with the stock 19. As shown in Figure 7, a pin 28 carried by the shank 22 works in a bayonet slot 29 formed in the sleeve 27, the lock end of the bayonet slot being at the inner end of the sleeve so that upon rotation of the sleeve when extended, holds the same so positioned. A knob or boss 30 is provided upon the inner face of each spring finger 26 adjacent its outer end for biting engagement with the duster head stock for retaining the same in the socket member.

In the form of handle illustrated in Figures 9 and 10, the outer end of the handle 21*a* carries a cap ferrule 31 to which the socket member is attached by the screw 24*a* that also enters the handle 21*a*. The socket member in Figures 9 and 10 is of frusto-conical formation and the annular side wall thereof is longitudinally slit to provide spring fingers 26*a*. An annular series of beads 32 is provided on the outer sides of the spring fingers 26*a* intermediate their ends and the outer end of each spring finger 26*a* carries an outwardly directed flange 33. A ring 27*a* surrounds the socket member between the beads 32 and finger flanges 33 being limited in its sliding movements by these elements and operable for moving the spring fingers 26*a* into clamping position as shown in Figure 9, the ring 27*a* being in its releasing position as shown in Figure 10 with the spring fingers 26*a* extended to permit reception of the duster element in the socket member.

In the form of invention shown in Figure 11, the socket member is directly attached to the handle 21*b* and carries an integral annular flange 31*a* inclosing the outer end of the handle, the socket member being attached to the handle by the screw 24*b*. The socket member is longitudinally slitted to provide spring fingers 26*b*, the inner end of the socket member adjacent the flange 31*a* carrying an annular bead 32*a* while the outer ends of the spring fingers 26*b* are flanged outwardly as at 33*a*. The clamping ring 27*b* surrounds the spring fingers of the socket member and moves between the bead 32*a* and finger flanges 33*a*.

From the above detailed description of the invention, it is believed that the construction and operation thereof will at once be apparent, it being noted that the duster head is formed of a longitudinal strip of material foldable in the direction of the longitudinal axis thereof to provide superposed plies with corresponding side edges of the plies slit to provide bristles or the like, while, the unslitted edges of the plies are moved into a form for attachment to a socket member of a handle. The socket member is of cup-formation with the side walls thereof longitudinally slit to provide spring fingers with which as shown in Figures 9 to 11 a ring is associated for moving the spring fingers into engagement with the duster element, while in Figures 5 to 8, the spring fingers are moved into clamping position by the sleeve 27, movement of which is facilitated by the knurled ring 27*c* formed integral therewith. It is intended that the duster heads be preformed and shipped in hermetically sealed packages and after the single use of the duster, the same is to be discarded, especially when used in barber shops, beauty parlors and the like, but for

home use, when employed as a household implement, the duster head may be used until worn away.

While there are herein shown and described the preferred embodiments of the present invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

I claim:—

1. In a duster, a cylindrical socket member normally flaring outwardly and longitudinally slit to provide spring fingers, and means surrounding the socket member and slidable thereon for moving the spring fingers into clamping position for engagement with a duster element, the outer ends of the spring fingers being bent outwardly away from the center of the socket member to facilitate easy ejection of the duster element from the socket member when the operative means for the spring fingers is shifted inwardly from the outer ends thereof.

2. In a duster, a socket member longitudinally slit to provide spring fingers, means slidably associated with the socket member for moving the spring fingers into clamping position, a duster element removably retained in the socket member, and means carried by the spring fingers of the socket member to limit sliding movements in opposite directions of the finger clamping means.

3. In a duster, a handle, a socket member of outwardly flaring frusto-conical formation carried by the handle, said socket member being longitudinally slit to provide spring fingers with the slits extending through the outer end, means slidably mounted on the socket member and of less diameter than the outer end of the socket member for moving the spring fingers into clamping position, a duster element removably retained in the socket member and the outer end of each finger of the socket member flaring outwardly away from the duster whereby the duster may be easily ejected when the fingers move outwardly at their outer end.

4. In a duster, a handle, a socket member carried thereby with its inner end flatly engaged with the outer end of the handle and of a diameter substantially equal to the diameter of the outer end of the handle, said socket member being slit longitudinally to provide spring fingers, a sleeve slidable on the outer end of the handle and socket member to move the fingers into clamping position, a duster element removably mounted in the socket member, and a pin and slot connection between the handle and sleeve.

5. In a duster, a handle, a socket member fixed to the handle with its inner end flatly engaged with the outer end of the handle and of a diameter substantially equal to the diameter of the outer end of the handle, said socket member being slit longitudinally to provide spring fingers, a sleeve slidable on the outer end of the handle and socket member to move the fingers into clamping position, a duster element removably mounted in the socket member, and a pin and bayonet slot connection between the handle and sleeve.

6. In a duster, a handle, a ferrule secured to the handle, a socket member anchored to the ferrule and handle, the socket member being longitudinally slit to provide spring fingers, a ring slidable on the socket member for moving the spring fingers into clamping position relative to a duster element, and means for limiting movement of the ring in opposite directions, including an annular bead on the socket member and an outwardly flaring end of each finger.

7. In a duster, a socket member longitudinally slit to provide spring fingers, means slidably associated with the socket member for moving the spring fingers into clamping position, a duster element removably retained in the socket member, and a boss on the inner face of each finger inwardly of its outer end for biting engagement with the duster element when in clamped position.

In testimony whereof I affix my signature.

RALPH YUTTS.