S. G. WILSON.

BRUSH OR MIRROR HOLDER OR BACK.

APPLICATION FILED MAY 20, 1913.

1,134,712. Patented Apr. 6, 1915.

Fig. 1.

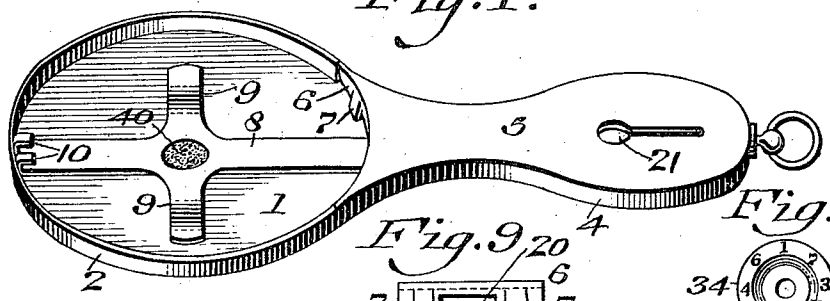


Fig. 9.

Fig. 13.

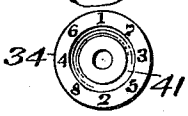


Fig. 2.

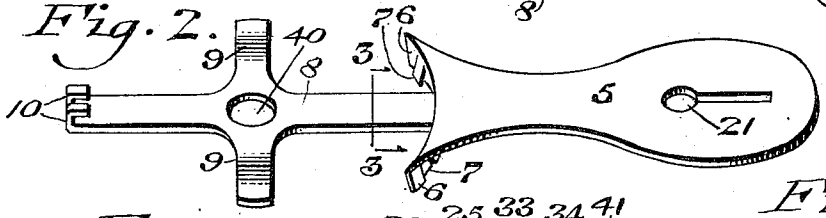


Fig. 10.

Fig. 5.

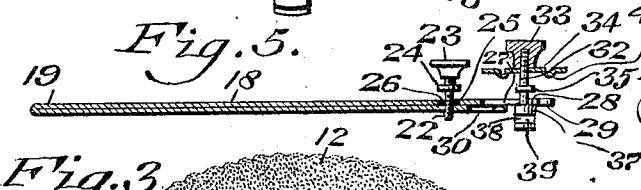


Fig. 11.

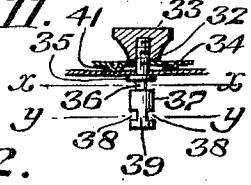


Fig. 3

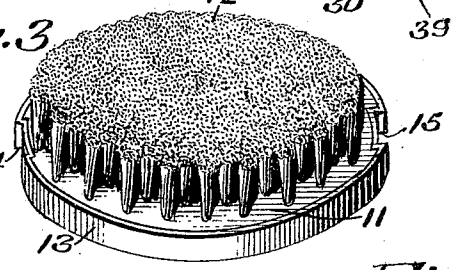


Fig. 12.

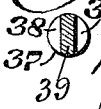


Fig. 7.

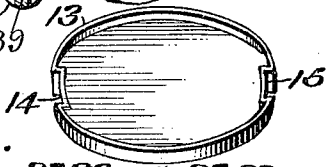


Fig. 4.

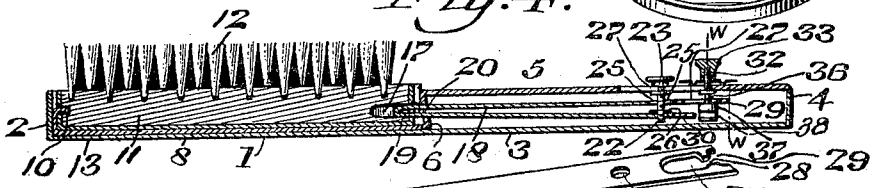


Fig. 6.

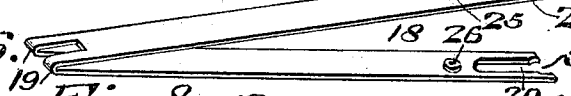
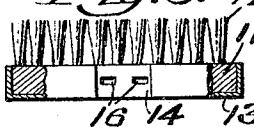


Fig. 8.



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STEPHEN G. WILSON, OF PHILADELPHIA, PENNSYLVANIA.

BRUSH OR MIRROR HOLDER OR BACK.

1,134,712. Specification of Letters Patent. Patented Apr. 6, 1915.

Application filed May 20, 1913. Serial No. 768,710.

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 Brush or Mirror Holder or Back, of which the following is a specification.

My invention relates to a new and useful brush or mirror holder or back and consists in providing means for locking a brush-head or mirror thereto whereby the same may be removed or replaced by proper operation of locking means.

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

The annexed drawings and the following description set forth in detail one mechanical form embodying the invention, such detail construction being but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings—Figure 1 represents a perspective view of a brush-holder or back embodying a part of my invention, the brush proper being removed. Fig. 2 represents a view of a member which forms a part of the handle and of the brush-retainer. Fig. 3 represents a perspective view of the removable brush-head. Fig. 4 represents a longitudinal section of the assembled brush. Fig. 5 represents a longitudinal section of the latch, screw and locking bolt. Fig. 6 represents a perspective view of the latch with its leaves spread apart. Fig. 7 represents a perspective view of the metallic jacket for the brush-head. Fig. 8 represents an edge-view of the brush-head, showing parts broken away and removed. Fig. 9 represents a section on the line *z*—*z* in Fig. 2. Fig. 10 represents a sectional detail view on the line *w*—*w* in Fig. 4. Fig. 11 represents a sectional detail view on the line *x*—*x* in Fig. 10. Fig. 12 represents a sectional detail view on the line *y*—*y* in Fig. 10. Fig. 13 is a plan view of the dial employed.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, the reference numeral 1 indicates a head-portion, having a circumferential flange, 2, and extending into a handle-portion, 3, having a flange, 4. A handle-cover, 5, is of thin spring material shaped to correspond to and cover the handle-portion, bearing against the flange of the same and soldered, and said cover has at its inner end an overhanging off-set or shoulder portion, 6, which fits in the gap between the flanges of the head-portion, where they merge into the flanges of the handle-portion. Said shoulder-portion has spring-tongues, 7. A shank, 8, extends from the edge of the shoulder-portion and is adapted to bear against the bottom of the head-portion, and secured to the same by solder in an opening 40, and said shank has laterally projecting and upwardly curved spring-arms, 9. The outer end of said shank is forked to form two fingers, 10, which are turned back to form hooks and constituting a catch. The brush-head, 11, is of a shape corresponding to the head-portion and has bristles, 12, and a metallic jacket, 13. The brush-head and its jacket are formed with diametrically opposite recesses, 14 and 15, each having two slots, 16 and 17, respectively.

The slots 16 at the outer edge of the brush-head are engaged by the hooked forked ends or fingers 10 of the shank 8. A doubled flat strip of metal forming a latch, 18, is slidable within the flanged handle-portion and cover, and is cut away at its doubled end to form prongs, 19, which engage the slots 17 in the inner edge of the brush-head, the doubled end of the latch being slidable in a slot, 20, in the shoulder-portion 6 of the handle-cover 5. The handle-cover is formed with a keyhole-shaped slot, 21, and a screw, 22, having a head, 23, and a collar, 24, is slidable in said slot, the enlarged end of the slot admitting the passage of the collar 24. The threaded end of the screw passes through an opening, 25, in the upper leaf of the latch and screws into a boss, 26, upon the lower leaf and through said leaf, the boss fitting in the opening 25 of the upper leaf when the leaves are in normal or closed position. The upper leaf of the latch is longer than the lower leaf, and the end of the upper leaf is formed with a longitudinal slot, 27, having a contracted portion, 28, near its open end, and an enlarged portion, 29, at such end. The lower leaf of the latch has a longitudinal open-ended slot, 30, having an enlarged portion, 31, at the open end. A locking-bolt, 32, having a head, 33, and a dial-disk, 34, is slidable in the key-hole slot in the handle-cover 5, and has a collar, 35, bearing against the underside of said cover 5 and capable of being passed through the enlarged end

of the slot. Below the collar the bolt is formed into a flat shank, 36, of a thickness capable of passing through the contracted portion of the slot in the upper leaf of the latch, and of a width greater than such portion. A head, 37, is formed upon the bolt and has grooves, 38, near its end, said grooves being of such depth that the web, 39, between them and which is at right angles to the flat shank, can pass into the slot of the lower leaf. A mirror may be substituted for a brush, if desired or required. The dial-disk is formed from resilient sheet-material, and is formed with an annular bead, 41, bearing against the upper face of the handle-cover to retain the disk in its adjusted position.

In practice, the brush-head, of whatever shape it may be, or a mirror, is placed in the head-portion, which naturally is of a corresponding shape. The fingers 10 of the shank 8 of the handle-cover 5 will engage the slots 16 of the brush-head 11 and retain the outer end of the same. The spring-tongues 7 will bear against the inner edge of the brush-head, and the transverse spring-arms 9 will bear against the back of the brush-head 11 when the latter is secured in the head-portion of the device.

Assuming the latch to be in withdrawn position, the overhanging shoulder-portion of the back-cover and the recess 15 will admit of the brush-head being inserted into or removed from the head-portion without withdrawing the latch 18 completely through the slot 20, and will allow the prongs 19 to rest in said slot. When the latch is in its fully withdrawn position, the leaves are spread by the adjusting screw, and the rear end of the upper leaf rides upon the upper face of the head of the locking-bolt and the edges of the slot in the lower leaf engage the grooves in the head of said bolt. The latch is pushed by means of the adjusting screw to bring the prongs 19 into engagement with the slots 17 and the lower leaf is disengaged from the grooves 38 in the bolt-head 37. As the flat shank 36 of the locking-bolt is wider than the contracted rear end of the slot in the upper leaf, the latch can only be moved the distance until such contracted part strikes such shank. The locking bolt 32 is now given a one-quarter turn, which can be observed from the figures of the dial 34 which may be set upon the bolt to have two figures at a right angle to each other, register, respectively, with the plane of the small flat shank and with that of the web between the groove in the head. When the bolt is thus turned, the shank is edgewise of the contracted portion of the slot 28 in the upper leaf, and the latch can be pushed to have its prongs fully enter the slots in the brush-head. The end of the upper leaf has now slipped off from the upper side of the head of the bolt to have the enlarged portion of its slot bear against the bolt-head, locking the latch in place and securing the brush-head in the holder. When it is desired to unlock the brush-head from the holder, the leaves are drawn upward by the screw until the upper leaf can ride over the upper side of the bolt-head, and the bolt is turned to present the narrow shank edgewise to the contracted portion of the slot in the upper leaf. The latch may now be moved to partly disengage its prongs from the slots in the brush-head, whereupon the lower leaf is spread from the upper leaf by the adjusting screw until the end of its slot is in register with the grooves in the sides of the bolt-head, the bolt having in the meanwhile been given a one-quarter turn to produce such register, as seen in Fig. 4 of the drawings. The latch may now be entirely withdrawn and the brush-head removed. The dial-disk may be set to allow any two of its numbers at a right angle to each other to register with the shank and web of the locking-bolt, so that a combination lock is provided preventing unauthorized tampering and removal of the brush-head or mirror.

Other modes of applying the principle of my invention may be employed for the mode herein explained. Change may therefore be made as regards the mechanism thus disclosed, provided the principles of construction set forth, respectively, in the following claims are employed.

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, a head portion adapted for the reception of a brush-head, a catch for engagement with said brush-head, a latch formed of leaves adapted for engagement with said brush-head, and means for spreading apart and drawing together said leaves, whereby said latch may be actuated to release or engage said brush-head.

2. In a device of the character stated, a head portion adapted for the reception of a brush-head, means on said head portion for engagement with said brush-head, a movable latch, and means normally locking said latch and adapted to be positioned in certain relation with respect to said latch for permitting the passage of the same for throwing said latch into and out of engagement with said brush-head.

3. In a device of the character stated, a head portion adapted for the reception of a brush-head, means on said head-portion for engagement with said brush-head, a movable latch, means for actuating said latch to lock or release said brush-head, and resilient means for engagement with said brush-head.

4. In a device of the character stated, a head portion adapted for the reception of a brush-head and having a closed handle-portion, a catch in said portion adapted for engagement with the brush-head, a latch normally seated in said closed handle-portion and having a portion thereof adapted for engagement with said brush-head, means for moving said latch to cause the same to engage with or to be disengaged from said head, and spring tongues adapted to bear against said head when in position.

5. In a device of the character stated, a head-portion formed with a handle-portion, a brush-head adapted to fit in said head-portion, a handle-cover adapted to fit over said handle-portion and formed with an offset and with a shank provided with a catch engaging said brush-head, a latch longitudinally movable in the handle-portion and having one end engaging the brush-head, means for longitudinally moving said latch, and means for locking such latch against longitudinal movement.

6. In a device of the character stated, a head-portion formed with a handle-portion, a brush-head adapted to fit in said head-portion, a catch adapted to engage the edge of said head, a latch longitudinally movable in said handle-portion and having one end engaging the brush-head and composed of two leaves of unequal length and formed with slots in their ends, a locking bolt in said handle-portion and formed with reduced parts in different planes and adapted to be engaged by and to enter said slots, and means for spreading and drawing together said leaves of the latch.

7. In a device of the character stated, a brush-head, an open head-portion for the reception of said head and having means for detachably engaging the outer edge of said head and a closed handle-portion, a latch slidable in said handle-portion and having one end adapted to engage the inner edge of said head, means for locking said latch in engaging position, and means for indicating the position of the locking means in their relation to said latch.

8. In a device of the character stated, a head-portion formed with a handle-portion, a brush-head adapted to fit in said head-portion, a catch adapted to engage the edge of said head, a latch longitudinally movable in said handle-portion and having one end engaging the brush-head and composed of two leaves of unequal length and formed with slots in their ends, a locking bolt in said handle-portion and formed with reduced parts in different planes and adapted to be engaged by and to enter said slots, means for spreading and drawing together said leaves of the latch, and means carried with said bolt to indicate the positions of such portions in their relation to the slots.

9. In a device of the character stated, a head-portion formed with a handle-portion, a brush-head adapted to fit in said head-portion, a catch adapted to engage the edge of said head, a latch longitudinally movable in said handle-portion and having one end engaging the brush-head and composed of two leaves of unequal length and formed with slots in their ends, a locking bolt in said handle-portion and formed with reduced parts in different planes and adapted to be engaged by and to enter said slots, means for spreading and drawing together said leaves of the latch, means carried with said bolt to indicate the positions of such portions in their relation to the slots, and bearing means between said indicating means and the face of the handle-portion.

10. In a device of the character stated, a head-portion formed to receive a brush-head and having a closed handle portion, a movable latch in said handle portion and adapted to have locking engagement with the brush-head, a locking bolt in said handle portion adapted to normally prevent said latch from moving and having means in one position thereof for permitting movement of said latch and located out of the locking plane of said latch, means for actuating said bolt for placing said movement permitting means into operative position, and means for actuating said latch to bring the same into the plane of said movement permitting means, whereby said latch may be longitudinally moved to engage or release said brush-head.

11. In a device of the character stated, a head-portion formed for the reception of a brush-head and having a closed handle-portion, a latch normally seated in said closed handle-portion and having a portion thereof adapted for engagement with the brush-head, a locking bolt in said handle-portion which normally prevents movement of said latch and has means for admitting the latter to pass it when the bolt is moved from normal position and said means being located out of the locking plane of said latch, means for actuating said locking bolt for placing said passing means in operative position, means for actuating said latch to bring the same into the plane of said passing means, whereby said latch may be moved longitudinally to engage or release said brush-head, and means, exterior of said handle, for indicating the position of the locking bolt in its relation to said latch.

STEPHEN G. WILSON.

Witnesses:
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N. BUSSINGER.

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