Aug. 25, 1936. M. EHRLICH 2,051,833

SUPPORT FOR HAIR DRIER HOODS OR THE LIKE

Filed June 13, 1934

Fig. 1.

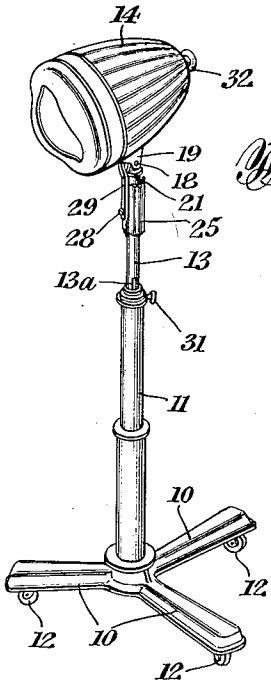


Fig. 2.

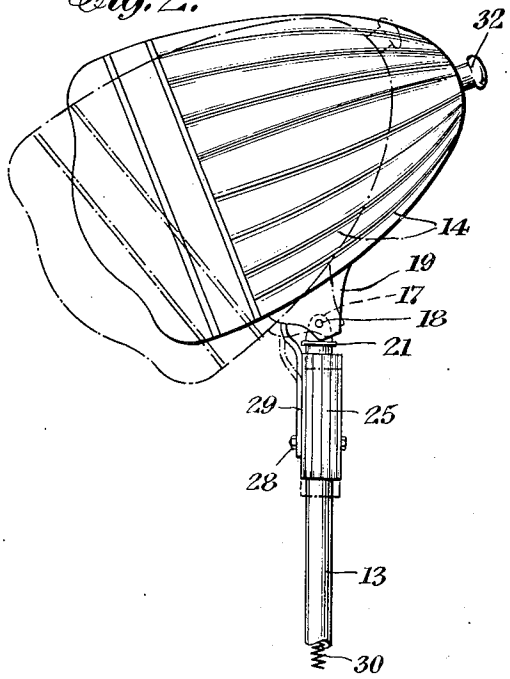


Fig. 4.

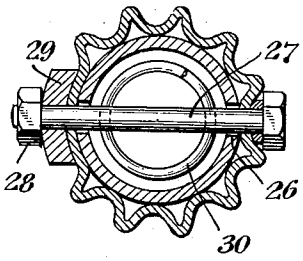
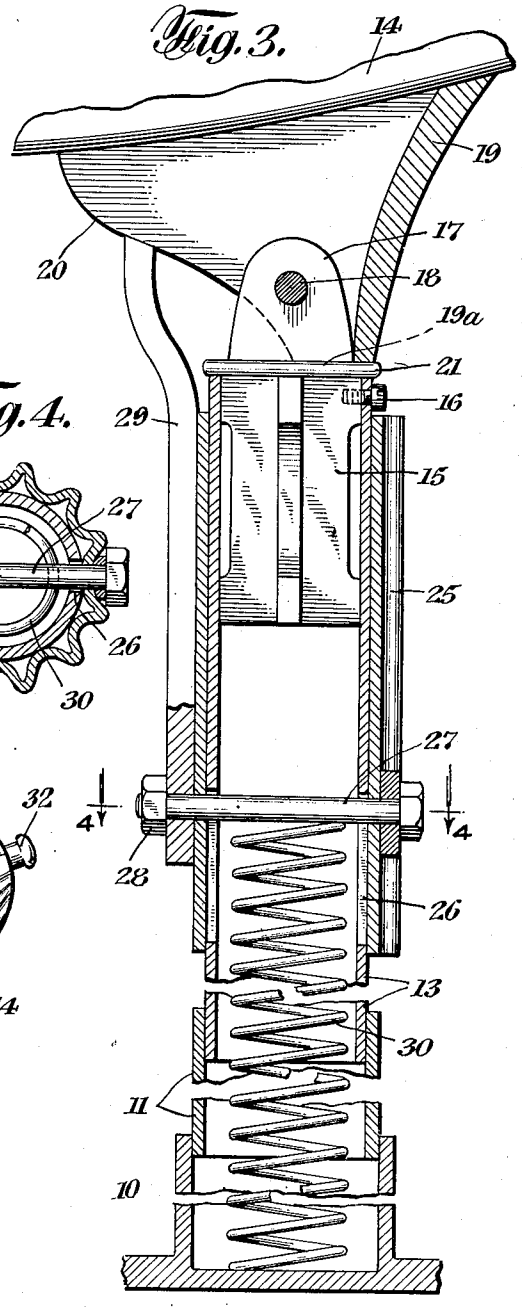


Fig. 3.



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Patented Aug. 25, 1936

2,051,833

UNITED STATES PATENT OFFICE

2,051,833

SUPPORT FOR HAIR DRIER HOODS OR THE LIKE

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Application June 13, 1934, Serial No. 730,501

13 Claims. (Cl. 248—161)

This invention relates to hair driers or the like of the type that are adapted to rest on the floor and which are provided with a base, a telescopic post supported by the base and a hood pivotally supported at the top of the telescopic post.

This invention relates particularly to such devices where the hood is adjustably elevated and adjustably tilted, and is provided with means to retain the hood in the desired elevated position and with means to retain the hood in the desired tilted position.

The invention resides in the novel arrangement and combination of the elevating and tilting means whereby simple manipulation of the parts affects the desired elevation and angular positioning of the hood.

One of the main objects of the invention is to provide a device of this character with means for counterbalancing the weight of the hood and its associated parts whereby the vertical positioning of the hood is facilitated. This means also is adapted to serve as a counterbalance against over tilting of the hood whereby the tilt or angular positioning of the hood is also facilitated.

Another important object of the invention is to provide in a device of this character such novel counterbalancing means without destroying the esthetic appearance of the device which therefore has no unsightly visible parts.

A further object of the invention is to provide means whereby the adjustments may be quickly and accurately made.

A still further object of the invention is to provide such counterbalancing means that are simple, rugged and unlikely to get out of order.

Other objects and advantages will appear after reading the following description having reference to the accompanying drawing, forming part of this disclosure, and particularly pointed out in the claims hereto appended.

It is well known that devices of this character are apt to tip over when being adjusted for application. This is due mainly to the cumbersome and insecure method of adjusting the parts to their proper elevation and angulation of the hood. In such devices prior to this invention where one frictional or other clamping means have been employed to hold the hood in the desired vertical position and another frictional or other clamping means is employed to hold the hood in a desired tilted position, independent counterbalancing means have been employed to bear the weight of the parts when one or the other of the clamps were loosened. In other words, heretofore a spring was used as a counterbalance against the weight of the hood plus the weight of the upper telescopic member and the associated parts when the vertical adjustment clamp was loosened. Likewise, a separate spring was employed in the prior art to resist or prevent the too sudden tilting of the hood when the tilt adjustment clamp was loosened. Some of the devices in the prior art have employed no such latter mentioned restraining means at all and depended upon a frictional clamp so tight as to render the tilting adjustment difficult when the clamp was not loosened during adjustment, thus allowing the hood to fall unrestrained if and when the such tilting clamp was loosened.

The tiltable hood in these devices swing freely on their pivots when the tilting clamp is loosened, because the center of gravity of the hood is usually disposed to one side of its supporting pivot. When the clamping means are loosened the entire hood if unrestrained, swings, under the influence of its offset center of gravity, with such force as to cause the entire device to tip on its base. In many cases when the tilting clamp is loosened and the hood swings unrestrained and the device does not tip over entirely, the hood in swinging sharply downwardly on its pivot often strikes the person receiving or about to receive treatment from the device.

The invention therefore contemplates a device in which the above mentioned danger during adjustment is obviated and which is provided with adjusting means for proper application with a minimum of effort and maximum speed.

In carrying out the invention it is proposed to employ a single spring as a counterbalancing means for supporting the weight of the hood and the associated parts. This spring is also adapted to bear the overbalanced weight of the hood when its center of gravity is offset and is further adapted to provide frictional pressure against the hood to retain the hood in its desired tilted position.

In the drawing:

Figure 1 is a perspective view of a device embodying the invention.

Figure 2 is a fragmentary detail of the upper portion thereof, including the upper portion of the supporting post and the tiltable hood.

Figure 3 is a fragmentary vertical longitudinal section of the device with certain parts broken away and other parts omitted.

Figure 4 is a section taken on the line 4—4 of Figure 3.

Referring to Figure 1, the numeral 10 designates a base for a drier or like device, said base supporting an upright sleeve portion 11 extend-

ing upwardly from the base, said base having castors 12 for aiding in the transfer of the device. The upright sleeve 11 is adapted to frictionally and telescopically receive a hollow post 13. This hollow post 13 is adapted to carry at its upper end a hood 14. This hollow sleeve 11 and post 13 form a vertical extensible and contractible post for adjustably supporting the hood in the desired vertical position.

The post 13 is provided at its upper end with a plug 15 which is secured to the post 13 by a screw 16. The plug 15 is provided with a pivot ear 17 adapted to receive a pivot pin 18 which passes through said ear and through a cam shaped base member 19 fixed to and extending downward from the hood. The member 19, substantially U-shaped in cross section is suitably secured to the lower or underside of the hood and is adapted to embrace the pivot ear 17. A pin 18 is adapted to pass through the ear 17 of the member 15 and the walls of the U shaped member 19. The forward and underneath edge of these parallel walls are suitably curved as at 20 to properly coact frictionally with a spring pressed member 29 in maintaining the angular position of the hood, as will be more fully described later.

The member 19 on one side thereof is adapted to extend below the pivot 18 as at 19a to abut against the member 15, thereby providing a stop against the counter-clockwise movement of the hood as seen in Figures 1, 2 and 3. The stop portion cooperates with a suitable shoulder 21 on the plug 15.

Inside the hood there is usually a heat or actinic ray producing device with or without a blower resulting in the movement of currents of warm air.

The pivot of the hood is so arranged that the center of gravity of the hood is slightly to the right of the vertical center of the post when the hood is positioned as indicated in Figure 3, thereby causing the hood to rest against the shoulder 21 in its normal upright position, as shown in this figure or in full lines in Figure 2. The center of gravity of the hood may however be shifted to the left of the pivot when the hood is rotated in a counter-clockwise position as shown in dot and dash lines in Figure 2. In this position the hood has a tendency to rotate further unless some means is provided to retard or react to this tendency. This means will be more fully described.

A slidable sleeve 25 surrounds the post 13 at its upper end. Slots 26 are provided in the post 13 to permit a bolt 27 which is secured to the sleeve 25, to pass diametrically through the post 13 to permit movement of the sleeve 25 on the post 13. The bolt 27 is secured to the sleeve 25 by means of a nut 28 at one end thereof. The slot allows clearance for the vertical movement of the bolt when the sleeve 25 is raised or lowered with respect to the post 13 when the hood is tilted.

Interposed between the nut and sleeve 25 and on the outside of the latter is a member 29 which extends upwardly and into frictional contacting engagement with the curved edge 20 of the member 19.

An expansion spring 30 is housed within the sleeve 11 and extends upwardly within the post 13. The spring is confined between the base 10 and the bolt 27 and is adapted to counteract part to the combined weight of the hood and post 13, when the hood is in any position. The friction between the post and sleeve together with the counteracting effect of the spring is sufficient to maintain the hood in any vertical position desired.

When it is desired to prevent elevation of the hood, a hand screw 31 may be provided in the sleeve 11 to lock the post 13 to the sleeve 11. When the screw 31 is loosened it releases the post 13 from fixed engagement with the sleeve. The hood may then be raised to any elevation within reasonable limits. This movement is assisted by the spring 30. Too sudden lowering or accidental rotation of the hood in a counter clockwise direction is retarded by the restraining influence of the spring. When the hood is in the desired elevation the screw 31 may be tightened and the hood is then positively retained in the proper elevation. The hood may however be tilted but not raised or lowered.

When it is desired to tilt the hood a knob 32 for that purpose is provided at the closed end of the hood. The knob is grasped and the hood may be swung about its pivot 18 in a counter-clockwise direction as indicated in Figure 2. In so doing the sleeve 25 is forced downwardly. This is due to the curved edges 20 which contact with and move the member 29, and the sleeve 25 to which it is secured, downwardly. The sleeve in moving downwardly carries with it the bolt 27 which, in resting against the spring 30, causes the compression of the spring. The reaction of the spring effects a restraining force against the counter-clockwise rotation of the hood.

It would be noted by the clearance between the top of the slot 26 and the pin 27 that the post 13 never touches the pin 27. The post 13 is hung from the pivot 18. The weight of the hood, the post, and the parts coacting therewith (29 and 15), are counteracted by the spring 30. Only the friction between the sleeve 11 and the post 13 need be overcome in order to raise or lower the hood.

The curvature 20 is of such shape as to provide sufficient friction which, together with the restraining force of the spring effects an even counterbalancing against rotation of the hood throughout its entire tilting range. It will therefore be noted that the spring 30 assists in carrying the weight of the entire hood and post 13 and also acts to counteract the tilting of the hood.

It is clear from the drawing that the spring 30 is compressed when the hood is tilted, thereby offering counter-balance against such tilting of the hood. It will also be seen from the drawing that in tilting the hood on the pivot 18 a rubbing takes place between the curved edges 20 of the member 19 and the member 29. The steeper the curvature 20 the greater the friction between these parts. In order, however, to provide a desired amount of friction during tilting of the hood the curvatiure 20 is of such shape as to provide the desired friction between these parts. To illustrate the effect of these parts, let it be assumed that the post 13 and the sleeve 11 are fixed together and the hood tilted as indicated in dot and dash lines in Figure 2. The spring 30 pressing up against the bolt 27 urges the member 29 upwardly. The hood would then have a tendency to be tilted clockwise if there was no restraining force against this clockwise rotation of the hood. This restraining force, however, is provided by the frictional contact between the member 29 and the curved edges 20 of the member 19. The hood therefore will not tilt under the influence of the spring but will be maintained frictionally in the adjusted position. The spring provides the pressure to bring about friction be-

tween the parts 19 and 20, which provides resistance against the overtilting or too sudden tilting in a counter-clockwise direction of the hood. It is obvious that if this spring were not present the hood would swing sharply in a counter-clockwise direction when its center of gravity was disposed to the left of the vertical center of the pivot. This curvature 20 has been found to maintain the hood in any of its tilted positions and provides the proper frictional requirements against unwarranted tilting.

Having thus described one embodiment of the invention it is understood that there are modifications which may be resorted to without digressing from the scope of the invention as pointed out in the claims.

What is claimed, is:—

1. In a device of the character described, a base, and a tiltable hood, telescopic means between the base and the hood, a spring in said telescopic means for counteracting the weight of the hood, and means disposed between the spring and the hood for compressing the spring when the hood is tilted.

2. In a device of the character described, a base, a tiltable hood, telescopic means between the base and the hood for adjusting the hood vertically, a spring in said telescopic means for counteracting the weight of the hood, means for preventing the tilting of the hood in one direction, and means disposed between the spring and the hood for compressing the spring when the hood is tilted in the other direction.

3. In a device of the character described, a base, a tiltable hood, means between the base and the hood whereby the elevation of the hood may be varied, a spring for counteracting the weight of the hood, means whereby the tilt of the hood may be varied, and means coacting with said spring for maintaining said hood in any of its tilted positions.

4. In a device of the character described, a base, a tiltable hood, telescopically cooperating members operably associated between the hood and the base, a pivot between the hood and one of the telescopic members, means slidable on the said one of the telescopic members engageable with the hood on one side of the pivot, and a spring between the base and the said means for counteracting the weight of the hood and for resisting the tilting of the hood on the pivot.

5. In a device of the character described, a base, a hood, a member connected to the hood, a pivot between the hood and the member, means for arresting the tilting of the hood in one direction, and means including a spring for urging the hood in the said direction.

6. In a device of the character described, a base, a tiltable and vertically adjustable hood carried by the base, a spring in the base for counteracting the weight of the hood, and means disposed between the spring and the hood whereby the spring is compressed when the hood is tilted.

7. In a device of the character described, a base, a tiltable and vertically adjustable hood carried by the base, and means including a spring for counteracting the weight of the hood and for resisting the tilting thereof.

8. In a device of the character described, a base, a tiltable and vertically adjustable hood carried by the base, a spring for counteracting the weight of the hood, and means coacting with the spring for resisting the tilting of the hood.

9. In a device of the character described, a base, a tiltable and vertically adjustable hood carried by the base, a spring for resisting the tilting of the hood, and means coacting with the spring for counteracting the weight of the hood.

10. In a device of the character described, a base, a vertically adjustable hood carried by the base, means whereby the hood may be tilted in one direction only from its normal position, and means including a spring for counteracting the weight of the hood and for urging the hood in a direction toward its normal position.

11. In a device of the character described, a base, a vertically adjustable hood carried by the base, a pivot between the base and the hood whereby the hood may be tilted, means for preventing the tilting of the hood in one direction from its normal position, and means including a spring for counteracting the weight of the hood and for urging the hood in a direction toward its normal position.

12. In a device of the character described, a base, a tiltable hood carried by the base, telescopic means in the base whereby the hood may be vertically adjusted, and means including a spring within the telescopic means for counteracting the weight of the hood and for resisting the tilting thereof.

13. In a device of the character described, a base, a vertically adjustable hood carried by the base, pivotal means between the base and the hood whereby the hood may be tilted, and means including a spring within the base for counteracting the weight of the hood and for resisting the tilting thereof.

MAXIMILIAN EHRLICH.