

Jan. 28, 1958

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2,821,453

HOLDER FOR ELECTRIC SHAVER AND TAKE-UP REELS THEREFOR

Filed Sept. 20, 1954

2 Sheets-Sheet 1

Fig. 1.

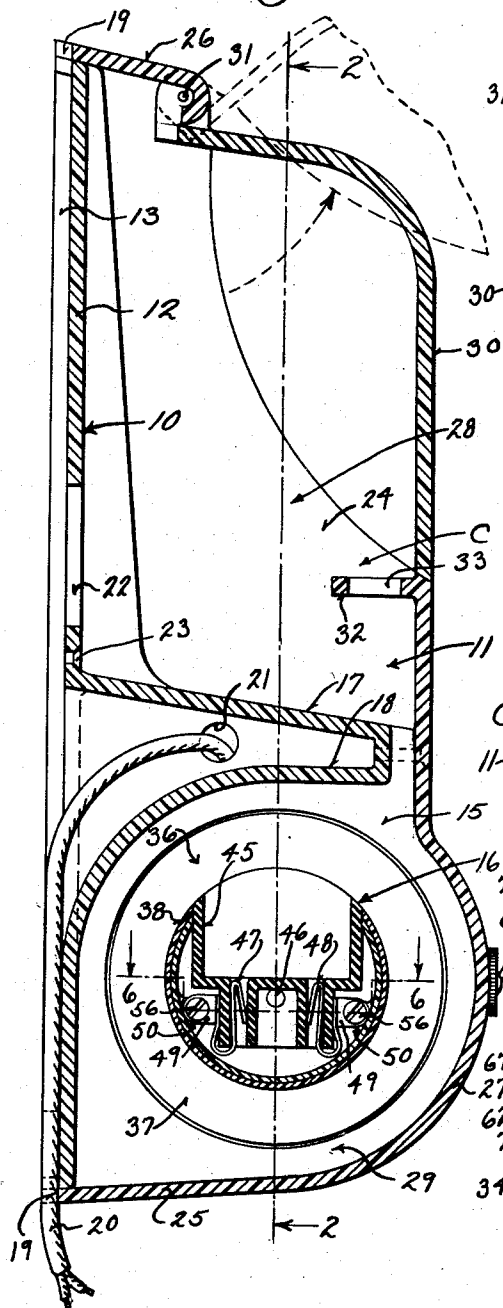
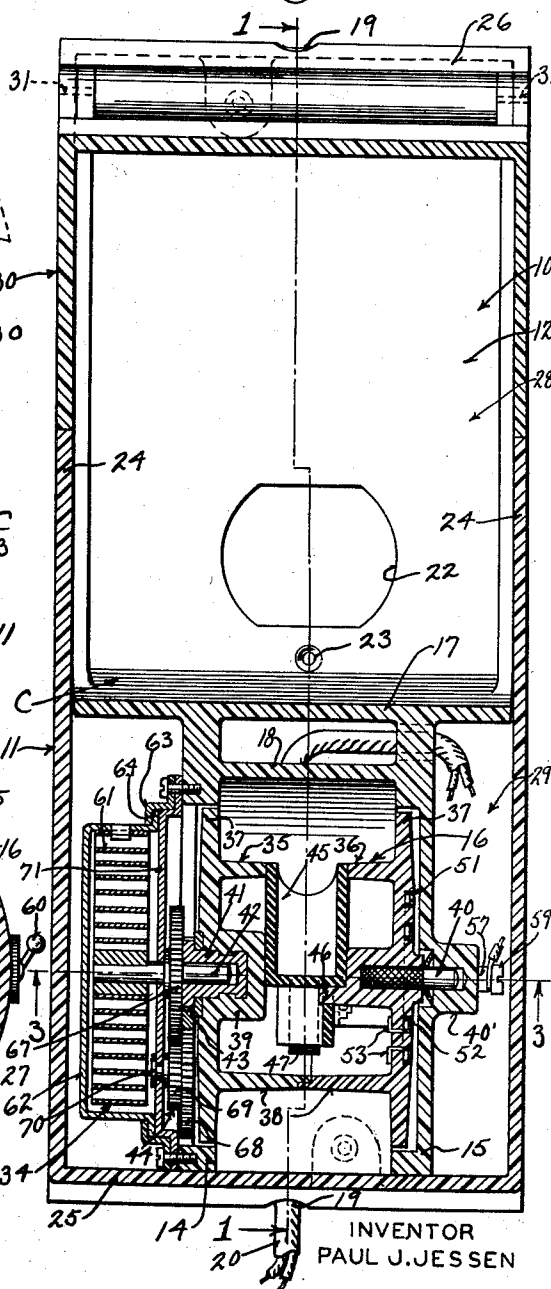


Fig. 2.



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Fig. 3.

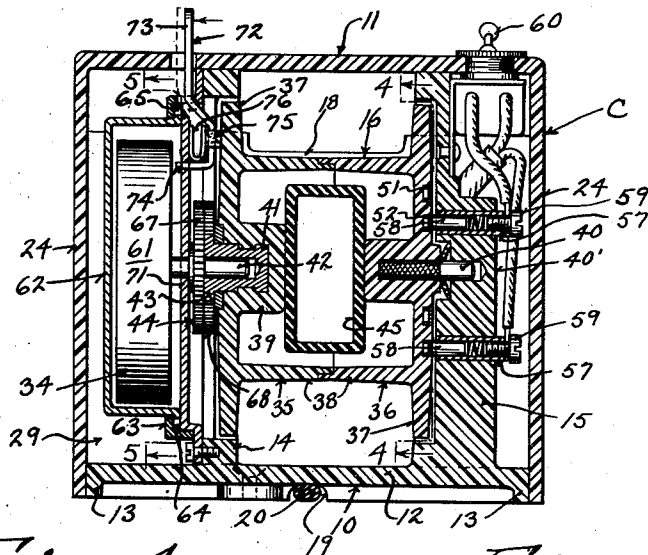


Fig. 4.

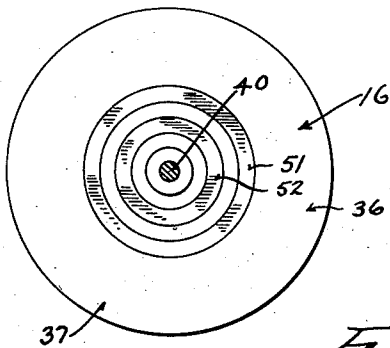


Fig. 5.

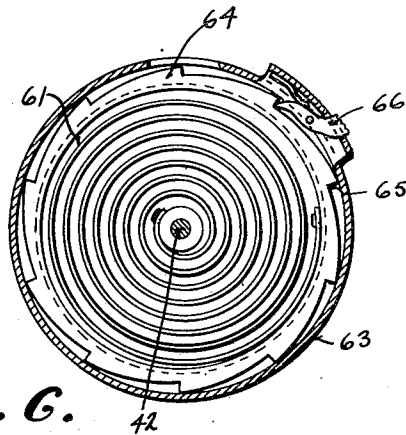
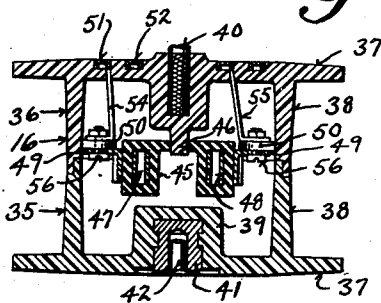


Fig. 6.



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Application September 20, 1954, Serial No. 457,079

3 Claims. (Cl. 312—223)

This invention appertains broadly to cabinets and more particularly to a novel holder for electric shavers, small electric tools and the like and the extension cords therefor, the cabinet being readily mountable on walls, work benches and so forth.

One of the primary objects of my invention is to provide a safe, convenient and sanitary holder for an electric shaver and the like when the same is not in use in combination with an automatic take-up reel for the cord of the shaver, the entire structure being such that the shaver can be quickly removed from the holder with the cord paid off the reel readily for instant use by the mere closing of a switch.

Another salient object of my invention is to provide a wall cabinet embodying a compartment for an electric shaver and a compartment for a spring wound take-up reel for the extension cord of the shaver, with a normally tensioned brake for holding the reel against accidental rotation during use of the shaver, the brake being released by a finger piece for permitting automatic rewinding of the cord after the shaving operation.

A further object of my invention is to provide a wall cabinet for electric shavers which can be readily attached to a wall or the box of an electric outlet and plugged into outlets of different types so that the cord and the shaver when attached properly to the reel will be in circuit with the household current supply.

A further important object of my invention is the provision of a novel means for forming the cabinet itself so as to provide an attractive and durable device, the cabinet including an attaching base having formed thereon the support for the reel and a partition to divide the cabinet into the shaver and reel receiving compartments and a removable cover for the base preferably formed from a thermoplastic material of a transparent or a colored, translucent nature.

A still further important object of my invention is the provision of a novel reel structure and spring tension device therefor, the reel having means for receiving the plug of the shaver cord and the reel itself having means for receiving current from the house circuit.

A still further important object of my invention is to provide a device of the above character which will be efficient in use, one that will be simple and easy to manufacture and one which can be placed upon the market at a reasonable cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described and claimed and illustrated in the accompanying drawings, in which drawings,

Figure 1 is a vertical sectional view through my improved wall cabinet for electric shavers taken on the line 1—1 of Figure 2, looking in the direction of the arrows;

Figure 2 is a longitudinal sectional view through the cabinet taken at right angles to Figure 1 and on the line 2—2 of Figure 1, looking in the direction of the arrows;

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Figure 3 is a transverse sectional view through the cabinet taken on the line 3—3 of Figure 2, looking in the direction of the arrows, the view illustrating the novel construction of the reel and tensioning device therefor;

Figure 4 is a detail sectional view taken on the line 4—4 of Figure 3, looking in the direction of the arrows showing the take-up reel or spool in end elevation and the electric conductor rings carried thereby;

Figure 5 is a detail sectional view taken on the line 5—5 of Figure 3, looking in the direction of the arrows illustrating the spring take-up device for the reel, and

Figure 6 is a detail sectional view taken through the reel or spool on the line 6—6 of Figure 1 looking in the direction of the arrows, illustrating the means of electrically connecting the conductor rings with the socket for the plug of the cord of the electric shaver.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter C generally indicates my improved cabinet and the same embodies a base section 10 and a removable cover section 11. The base and cover sections 10 and 11 can be formed from any desired materials but preferably from a thermoplastic material which can be readily molded into the desired configuration. It is contemplated of forming the cover section 11 from different colors of a translucent plastic so that prospective purchasers will have a choice to suit their individual taste.

The base section 10 includes a face plate 12 having formed on its marginal edge an inwardly directed flange 13 for engaging against a wall or other support. Preferably cast on the outer face of the face plate 12 adjacent to the lower end thereof are a pair of spaced parallel bracket plates 14 and 15 which form a support for a rotatable reel or spool 16 for the extension cord of an electric shaver (not shown). Formed with the upper edges of the bracket plates 14 and 15 and with the face plate 12 is a transverse partition 17, the purpose of which will later appear. The bracket plates can also have cast integral therewith a curved wall 18 merging in with the face plate to define a guard for the reel or spool 16. The marginal rib 13 at appropriate points, such as at the upper and lower ends of the cabinet can be notched to provide guides 19 for an electric cord 20 which can be plugged into a convenient electric outlet. As best shown in Figures 1 and 2, the cord is led into the cabinet between the partition 17 and the curved wall 18 and through an opening 21 formed in the bracket plate 15 so that the cord can be positioned at one side of the reel for a purpose which will also later appear. The base section 10 can be provided with openings at desired points to receive suitable fastening elements to permit the attachment of the cabinet at a desired point on a wall adjacent to an electric outlet. Where an electric outlet is conveniently positioned for use by an electric shaver, the cover plate of such outlet can be removed and the face plate 12 has formed therein an opening 22 for receiving a socket of the outlet and the base section can be secured to the box of the outlet by placing a fastening screw through an opening 23 in the face plate 12 adjacent to the socket opening 22. Sufficient space has been provided between the partition 17 and the curved wall 18 to accommodate the plug on cord 20, when base 10 is used as a cover for an electric outlet.

The cover section 11 includes spaced parallel side walls 24, a bottom wall 25, a top wall 26 and an outer wall 27. The bottom wall 25 and the outer wall 27 are preferably shaped to conform to the configuration of the reel or spool 16 and the bracket plates 14 and 15. The cover section 11 is of such a size that the side, top and bottom walls snugly receive the marginal edge of the base section 10 and the cover section is detachably secured in

place by the use of fastening elements suggested in dotted lines in Figure 1 passing through the cover section into the bracket plates 14 and 15. When the cover section 11 is properly assembled on the base section, the partition plate 17 defines in conjunction therewith an upper electric shaver receiving compartment 28 and a lower compartment 29 in which is positioned the bracket plates 14 and 15 and the reel or spool 16. As best shown in Figure 1, the outer wall 27 terminates short of the upper end of the cabinet and the side walls 24 taper back from the outer wall toward the top wall 26. The top wall 26 is of a materially less width than the bottom wall 25. This arrangement provides easy access to the upper compartment 28 and hence an electric shaver can be easily placed in the compartment or removed therefrom, and when the shaver is in position in the compartment the same rests on the partition plate 17. To protect the electric shaver from dust and dirt, a lid 30 is provided for the compartment 28 and this lid is hingedly connected, as at 31, to the front end of the top wall 26. Obviously, the lid is shaped to conform to the general configuration of the cover section of the cabinet. If desired, a small shelf 32 can be cast on the inner surface of the outer wall 27 and this shelf can be provided with an opening 33 for the reception of a brush for cleaning the electric shaver.

As heretofore brought out, one of the main features of the invention is the novel arrangement of the reel or spool 16 and a spring rewind device therefor, and this spring rewind device is generally indicated by the reference character 34. Now referring to the reel or spool 16, the same is cast in companion half spool sections 35 and 36. Each half spool section 35 and 36 includes an end disc 37 and an inwardly directed hub sleeve 38. These hub sleeves abut and can be rigidly secured together at the appropriate time, in any desired way. Where the reel or spool is made from a plastic, acetone can be used on the meeting faces of the hub sleeves and the hub sleeves can then be pressed together. Each disc 37 has formed thereon an inwardly projecting axially disposed hub socket 39. One hub socket has anchored therein for movement therewith an outwardly projecting stub shaft 40 and the other hub socket has embedded therein for movement therewith a bearing 41 for rotatably receiving a stub shaft 42. The stub shaft 40 is rotatably mounted in a bearing boss 40' formed on the bracket plate 15. This stub shaft 42 can have formed thereon or secured thereto a pinion 43 which forms a part of a train of gearing 44 utilized to operatively connect the spring rewind device 34 with the spool or reel 16.

The meeting sections 35 and 36 of the reel or spool receive therebetween a socket 45 for the plug of the cord (not shown) for the electric shaver, and this socket is securely clamped between the hub sections and seats in a notch 46 in one of the hub bosses or sockets 39. Forming a part of the electric socket 45 are spaced resilient conductor strips 47 and 48 for electrical engagement with the prongs of the plug of the electric shaver cord. These resilient conductor strips extend exteriorly of the socket 45 into the reel and each conductor strip terminates in an attaching terminal ear 49 which abuts up against lugs 50 cast on the hub sleeve 38 of the spool section 36. The outer face of the disc 37 of the reel or spool section 36 has embedded therein electric conductor rings 51 and 52. The rings can have formed thereon bendable ears 53 and these ears can be slipped through slots formed in the end disc and then clinched over. The rings 51 and 52 carry respectively, conductor strips 54 and 55 which abut against the lugs 50, and these strips 54 and 55 are electrically connected with the resilient conductor strips 47 and 48 of the sockets by means of screws 56 which also function to hold these parts in assembled position.

The bracket plate 15 of the base section 10 has molded therein guide sleeves 57 and the guide sleeves receive spring pressed brushes 58 which electrically bear against the conductor rings 51 and 52. The guide sleeves 57

carry binding posts 59 for the wires of the cord 20. The cord 20, of course, carries the plug for fitting in an adjacent socket of an electric outlet, and from the description so far it can be seen that current is supplied from such outlet to the socket 45 and thence to the electric shaver. It is preferred, however, to interpose in the cord 20 a control switch 60 and this switch is carried by the outer wall 27 of the cover section 11. In use of the cabinet the cover section 11 is removed and the plug of the electric cord for the shaver is inserted within the socket 45 and the cord is then led over the partition 17 into the compartment 28 after which the cover can be replaced. The cord for the electric shaver is wound on and off of the reel or spool 16.

To provide means for automatically taking up the cord or rewinding the same on the reel or spool, the spring rewind device 34 is provided. This spring rewind device includes a coil spring 61, and one end of the spring is securely fastened to the stub shaft 42 and the opposite end of the spring is securely fastened to a cover plate 62. The cover plate is rotatably mounted on the bracket plate 14 of the base section 10 by means of a retaining ring 63 which receives the annular flange 64 formed on the inner edge of the cover 62. By turning the cover 62, the spring can be wound and the peripheral flange 64 is provided with ratchet teeth 65 engaged by a spring pressed pawl 66 which prevents retrograde movement of the cover 62 after the winding of the spring 61. The train of gearing 44 is utilized to operatively connect the stub shaft 42 with the spool or reel 16 and this train of gearing 44 includes the pinion 43, heretofore mentioned, and a gear 67 rotatably mounted on the stub shaft. Meshing with the pinion 43 is a gear 68 and this gear carries therewith a pinion 69 and this pinion in turn meshes with the large gear 67. The pinion 69 and the gear 68 are rotatably supported by a stub shaft 70 mounted on a stationary plate 71. This stationary plate 71 is firmly held in place against the bracket plate 14 by the same fastening elements utilized to hold the retaining ring 63 in position.

With the spring 61 placed under tension by winding, the spool or reel 16 is normally urged to rotate in a direction to wind up the cord of the electric shaver thereon and to resist this turning movement a brake 72 is provided (see Figure 3). The brake 72 includes a fingerpiece 73 rockably mounted at its inner end, as at 74, on the stationary plate 71. The fingerpiece 73 carries a friction brake shoe 75, and this brake shoe normally bears with sufficient pressure against the disc 37 of the spool section 35 to hold the spool against turning. The fingerpiece 73 and the brake shoe 75 are urged into this frictional contact by a spring 76 interposed between the stationary plate 71 and the fingerpiece.

In use of the electric shaver and the cabinet the lid 30 is swung open and the shaver is removed and the cord is pulled off of the reel 16 until a desired length of cord is had. This places the spring 61 under still further tension. After shaving, the fingerpiece 73 is manually manipulated to move the brake shoe 75 away from the reel and the reel will turn under influence of the spring 61 and effectively rewind the cord.

From the foregoing description, it can be seen that I have provided an exceptionally simple and durable form of cabinet for receiving and supporting an electric shaver so that the shaver will be always conveniently at hand and yet out of the way of other objects in a bathroom. As the shaver is effectively enclosed when placed in its compartment 28, the same will be maintained free from dust and dirt.

Partition 17 is pitched downwardly and forwardly so as to guide the lower end of the shaver or tool, as the case may be, forward so that the upper end of the shaver or tool will lay back tight against base plate 10.

While I prefer to use the gear train 44, it is to be understood that in some instances a direct drive could

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be had between the rewind spring 61 and the spool or reel.

Various changes in details may be made without departing from the spirit or the scope of this invention, but what I claim as new is:

1. An electric shaver wall cabinet of the type having a take-up reel carried therein comprising, a base section including a face plate, a pair of spaced outstanding parallel bracket plates on the face plate, an outstanding partition wall carried by the upper edges of the bracket plates and the front of the face plate, and a cover section detachably secured to the base section and housing the bracket plates and the partition and defining in conjunction with the base section and the partition wall an upper electric shaver receiving compartment and a lower compartment, said take-up reel for the electric cord of the shaver supported by the bracket plates within said lower compartment and said partition wall defining a guide for the electric cord.

2. An electric shaver wall cabinet as defined in claim 1, and said cover having a hinged lid for the upper compartment.

3. An electric shaver wall cabinet of the type having a take-up reel carried therein comprising, a base section including a face plate, a pair of spaced outstanding parallel bracket plates on the face plate, an outstanding

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partition wall carried by the upper edges of the bracket plates and the front of the face plate, said base section having an opening therein to receive a wall socket of an electrical outlet, and a cover section detachably secured to the base section and housing the bracket plates and the partition and defining in conjunction with the base section and the partition wall an upper electric shaver receiving compartment and a lower compartment, said take-up reel for the electric cord of the shaver supported by the bracket plates within said lower compartment and said partition wall defining a guide for the electric cord.

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