June 17, 1969

S. AIELLO, JR

3,450,872

ILLUMINATED HAIRPIECE

Filed July 25, 1966

Sheet 1 of 2

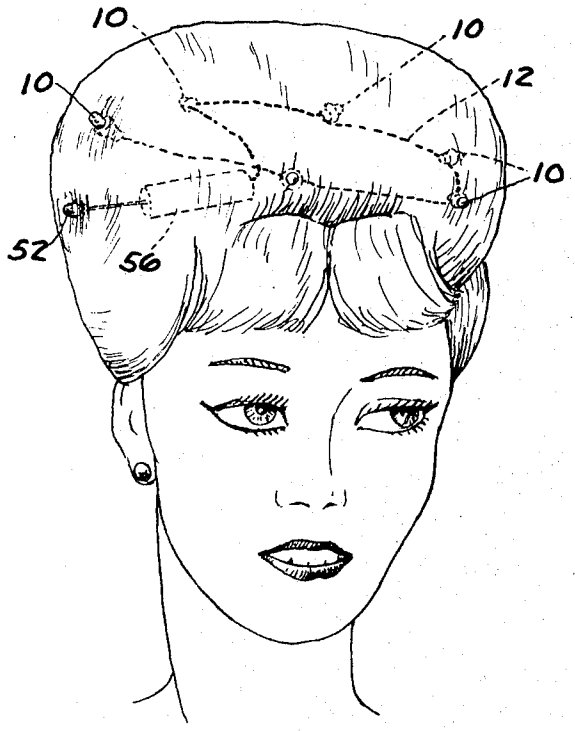


FIG. 1

FIG. 2

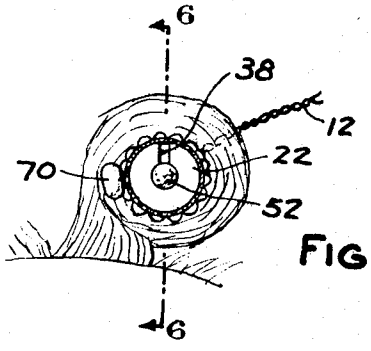


FIG. 3

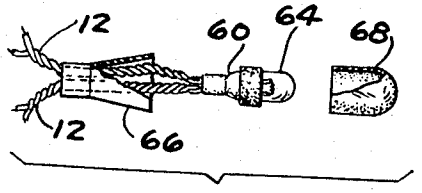


FIG. 4

INVENTOR.
SAMUEL AIELLO, JR.

BY

Barnes, Kisselle, Raisch & Choate

ATTORNEYS

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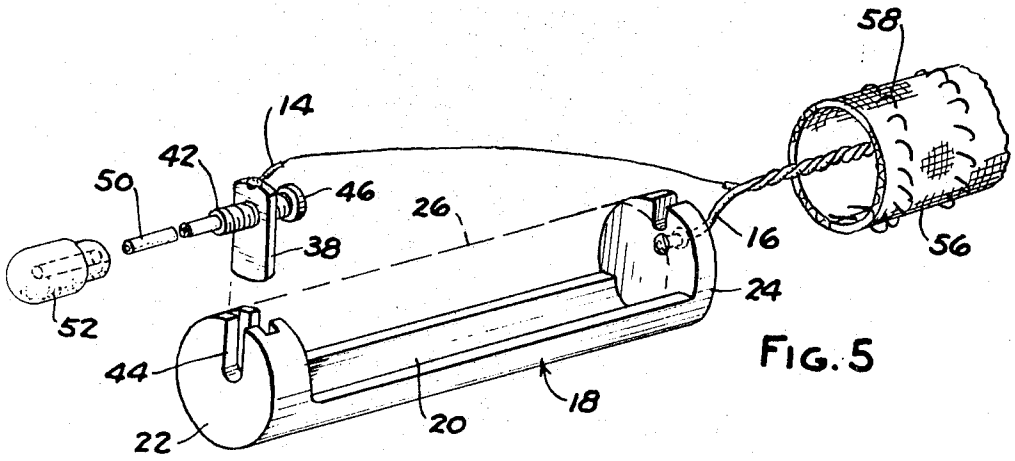


FIG. 5

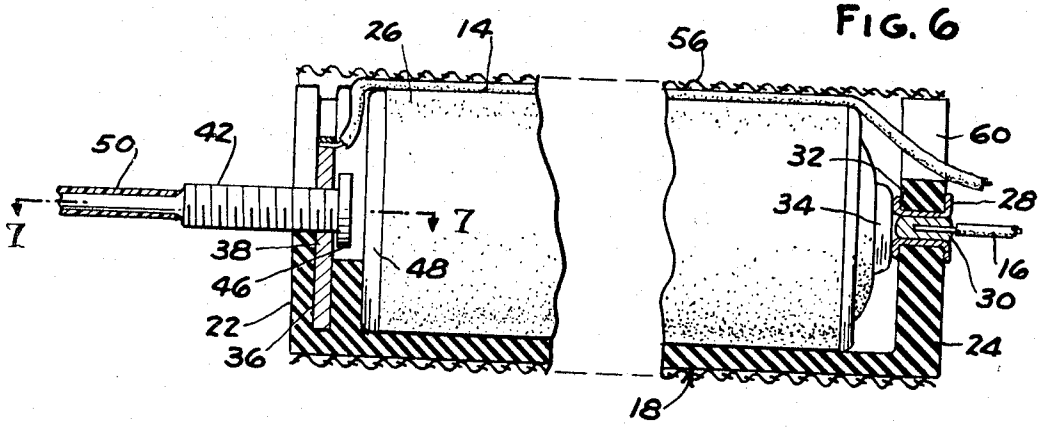


FIG. 6

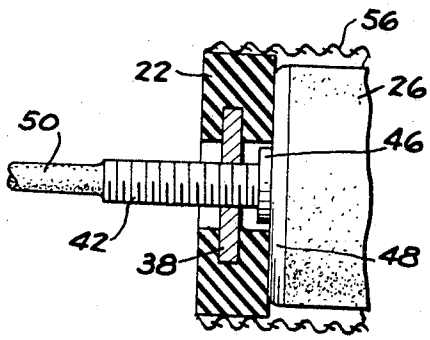


FIG. 7

INVENTOR.
SAMUEL AIELLO, JR.

BY

Barnes, Kisselle, Raisch & Choate

ATTORNEYS

United States Patent Office 3,450,872
Patented June 17, 1969

3,450,872

ILLUMINATED HAIRPIECE

Samuel Aiello, Jr., Detroit, Mich., assignor of one-half to Lawrence J. Aiello, Detroit, Mich.

Filed July 25, 1966, Ser. No. 567,673
Int. Cl. F21l 7/00, 15/08; F21v 33/00
U.S. Cl. 240—59
5 Claims

ABSTRACT OF THE DISCLOSURE

An illuminated hairpiece having a plurality of light bulbs interconnected by flexible electrical conductors and connected to a battery. The battery is housed in a cylindrical battery case provided with an elongate flexible member adapted to be actuated for opening and closing the circuit between the battery and the light bulbs.

This invention relates to an illuminated hairpiece and more particularly to a string of lights with a battery and switch assembly adapted to be worn by women in their hair.

Heretofore there have been proposed illuminated hairpieces in the form of one or more lights adapted to be worn on the head. Such illuminated hairpieces as previously designed have not become popular. One reason is that such previous designs were of a bulky nature and, therefore, too heavy to be supported by the hair itself and, thus, required some auxiliary support member such as a comb, ribbon or the like for supporting the battery for energizing the lights. Another reason for such previous designs never having attained popularity resulted from the inability to conceal the light and battery arrangement sufficiently to present an attractive appearance.

The present invention has for an object an arrangement of hair lights which is designed so that it can be unobstrusively arranged in a woman's hair to provide an attractive illuminated hairpiece.

A further object of the invention is to provide in combination with said string of lights a tubular cover adapted to encase the battery and fashioned so as to be easily concealed in a woman's hair dress.

Another object of the invention is to provide a battery case for such hair lights which has a roughened outer surface designed to hold the battery in a firmly retained position in a woman's hair.

A still further object of the invention resides in a novel switch for a string of hair lights which is of simple construction and which can be operated very readily by the user.

In the drawings:

FIGURE 1 is a view showing the manner in which the illuminated hairpiece of the present invention is adapted to be arranged in a woman's hair.

FIGURE 2 shows a string of hair lights, the battery case and the switch actuator.

FIGURE 3 illustrates one manner in which the battery assembly is adapted to be retained in a woman's hair.

FIGURE 4 is a fragmentary exploded view, partly in section, illustrating one of the lights.

FIGURE 5 is a fragmentary perspective view illustrating the battery case, cover and switch.

FIGURE 6 is a sectional view of the battery case assembly taken generally along the line 6—6 in FIG. 3.

FIGURE 7 is a sectional view along the line 7—7 in FIG. 6 and showing the switch in the circuit closing posing.

Referring to the drawings and particularly to FIG. 2, the illuminated hairpiece of the present invention comprises a plurality of lights **10** which are interconnected by conductors **12**. In the arrangement illustrated six lights

10 are illustrated and conductors **12** preferably interconnect these lights in parallel. A pair of lead conductors **14**, **16** extend from an end light **10**. Referring to FIG. 5, there is illustrated a battery holder **18** in the form of a cylindrical saddle portion **20** having end walls **22**, **24**. A small cylindrical battery **26**, preferably of the mercury type, is adapted to be seated within the cylindrical saddle portion **20**. Battery holder **18** is preferably molded from a lightweight plastic material. On end wall **24** there is arranged an electrical terminal **28** to which the lead conductor **16** is connected by soldering or the like as at **30**. Terminal **28** has a flange contact portion **32** adapted to make contact with one terminal **34** of the battery **26** seated in holder **18**. The opposite end wall **22** has a narrow cavity **36** therein for receiving a plate **38**. Plate **38** is formed of a conducting material, such as brass, and is provided with a threaded aperture **40** in which a stud **42** is engaged. End wall **22** is fashioned with a cross slot **44** extending from the upper edge thereof to accommodate stud **42**. The inner end of stud **42** is provided with a contact button **46** which, when stud **42** is threaded inwardly of plate **38** (FIG. 7), is adapted to contact the terminal **48** at the adjacent end of battery **26**. Stud **42** has a flexible cable **50** connected to the outer end thereof, cable **50** being provided with a turning knob **52** at its free end. The other lead conductor **14** from the string of lights is soldered or otherwise connected to plate **38** as at **54**.

In order to retain battery **26** seated within holder **18** there is provided a tubular cover **56** which is adapted to be snugly telescoped over holder **18**. Cover **56** is preferably formed of a fabric material such as a nylon mesh and has a plurality of small closely-spaced projections **58** extending the length thereof around its outer periphery. Projections **58** are preferably in the form of a small spiral of nylon filament or the like spirally wound around cover **56**. The projections **58** provide a plurality of closely-spaced spike-like members around the cover which provide it with a burr-like outer surface. Cover **56** is in a sense very similar to conventional tubular hair rollers of the type on which hair is adapted to be rolled and held in position on a person's head primarily by the frictional properties imparted to it by the tiny projections on the surface thereof. Cover **56** holds battery **26** and holder **18** in assembled relation. Cover **56**, as can be seen in FIG. 6, extends the full length of holder **18**. Cover **56** also overlies conductor **14**. End wall **24** is slotted as at **60** to accommodate conductor **14**.

Each light **10** preferably comprises a socket member **62** on which a light bulb **64** is permanently mounted. Socket **62** is covered by an insulating shroud **66** and replaceable colored caps **68** are adapted to be slipped over light bulb **64** and frictionally retained in socket **62** to impart a desired color to the lights.

In use the lights **10** are arranged in the desired pattern in the woman's hair. The lights are preferably located within the hair rather than at the outer surface thereof to enchance the appearance imparted to the hair dress by the lights. Since conductors **12** are readily flexible, any suitable arrangement of lights **10** can be obtained. As the lights are arranged in their desired locations, they may be retained in position by means of bob pins in the hair. The battery assembly; namely, battery **26**, holder **18** and cover **56**, can be arranged in position either before or after the lights **10** are arranged. The battery assembly may be arranged in a concealed condition by rolling it up into a lock of hair as illustrated in FIG. 3 and retaining it in place by a bob pin **70**. If desired, the battery assembly may be simply positioned under the hair and retained in place by a bob pin without rolling it into the hair. The projections **58** around the outer peripheral surface of cover **56** interengage with the hair to retain the

assembly in place. The battery assembly is preferably arranged in the hair dress so that the knob **52** on the free end of the flexible cable **50** is located adjacent but slightly below the outer surface of the hair. It thus remains concealed but is easily accessible for operation. The primary advantage of the actuator cable **50** is that it enables the battery assembly to be located adjacent the scalp in an effectively concealed position while permitting the light switch to be actuated easily without disturbing the hairdo. It will be appreciated, of course, that the hair lights of the invention may be used with most any hair style desired. Since cable **50** is flexible, the switch actuator can be arranged in any desired position. All that is necessary in order to energize or de-energize the lights **10** is rotation of knob **52**; this causes stud **42** to be threaded toward or away from the terminal **48** at one end of the battery. Obviously, stud **42** can be designed such that one or two turns of knob **52** are sufficient to either turn the lights on or turn them off.

I claim:

1. An illuminated hairpiece comprising a plurality of lights electrically interconnected by flexible conductors, a cylindrical battery, a generally cylindrical battery case enclosing said battery, a pair of flexible conductors connecting said battery case with said lights and switch means associated with the battery case for opening and closing the circuit between the battery and the lights, said battery case including a tubular cover having a plurality of individual, radially-extending, burr-like projection means spaced circumferentially around and lengthwise throughout the entire outer surface thereof for retentively concealing the battery case within the hairdo of the wearer whereby said lights may be arranged in said hairdo with said conductors and battery case concealed therein.

2. The combination called for in claim **1** wherein said cover comprises a sleeve formed of a fabric mesh material.

3. An illuminated hairpiece as called for in claim **1** wherein said switch means comprises an electrical contact member rotatably supported on said case and adapted to open and close said circuit in response to rotation thereof in opposite directions and including an elongate switch actuator connected with said rotatable contact and extending therefrom, said switch actuator comprising a flexible cable-like member having a free outer end adapted to be extended to adjacent the outer surface of the hairdo to permit actuation of said switch means.

4. An illuminated hairpiece as called for in claim **1**, wherein said battery case includes a battery holder comprising a saddle portion for receiving the battery and a pair of end walls enclosing the opposite ends of the battery, said saddle portion defining an opening extending substantially throughout the length of the battery case along one side thereof and through which the battery may be inserted and a seat in which said battery may be retained, said cover comprising an open-ended sleeve enclosing the battery and the holder for substantially the full length thereof for retaining the battery positioned within said saddle portion.

5. An illuminated hairpiece as called for in claim **1** wherein said battery case includes a battery holder comprising a saddle portion for receiving the battery and a pair of end walls enclosing the opposite ends of the battery, said cover comprising an open-ended sleeve enclosing said battery and holder for substantially the full length thereof and retaining the battery positioned within said saddle portion, said switch means including a plate formed of an electrically conducting material, an electrical contact comprising a stud threaded through said plate, a flexible cable-like member connected to the outer end of said stud for rotating the stud, one of said pair of conductors being connected with said plate, one of said end walls being provided with a cavity extending to the outer periphery thereof, said plate being insertable into said cavity and said cable-like being rotatable to actuate said stud so that the inner end thereof can be advanced into and retracted out of engagement with the terminal at the adjacent end of the battery.

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NORTON ANSHER, *Primary Examiner.*

RICHARD M. SHEER, *Assistant Examiner.*

U.S. Cl. X.R.

240—6.4