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2,752,704

ADVERTISING DISPLAY CIGARETTE LIGHTER

Filed June 9, 1953

2 Sheets-Sheet 1

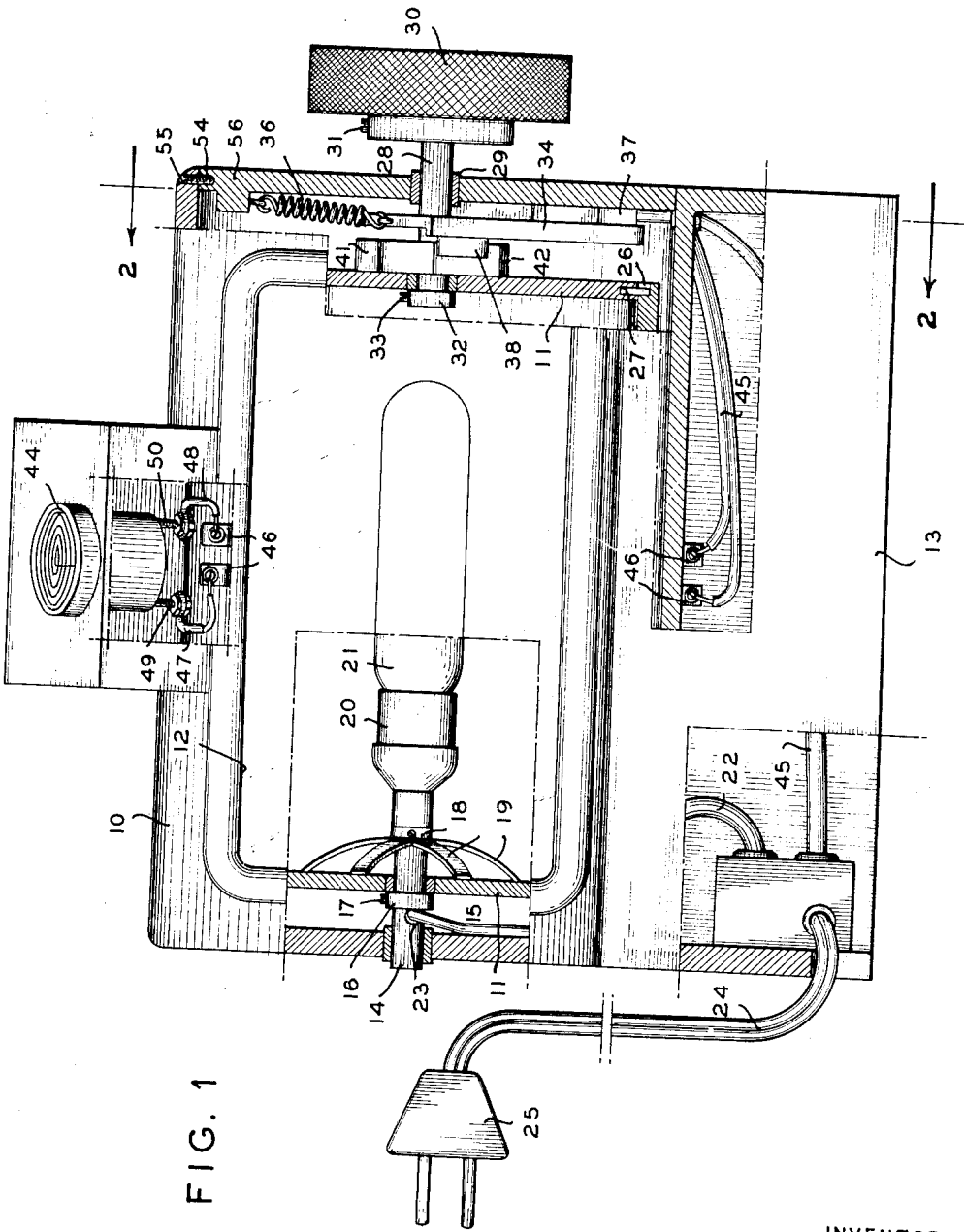


FIG. 1

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2 Sheets-Sheet 2

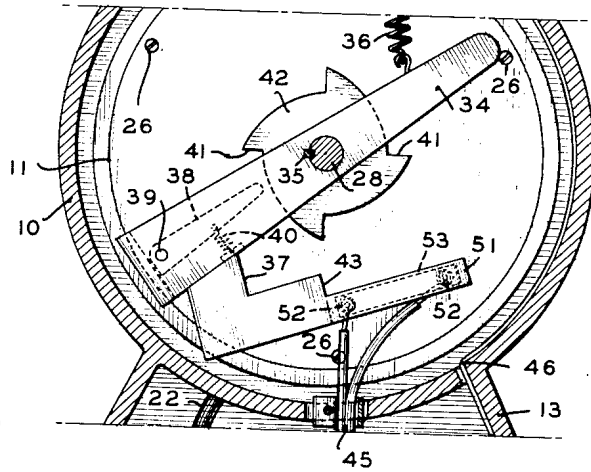


FIG. 2

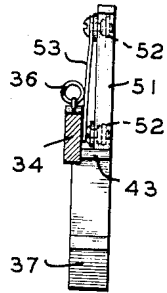


FIG. 4

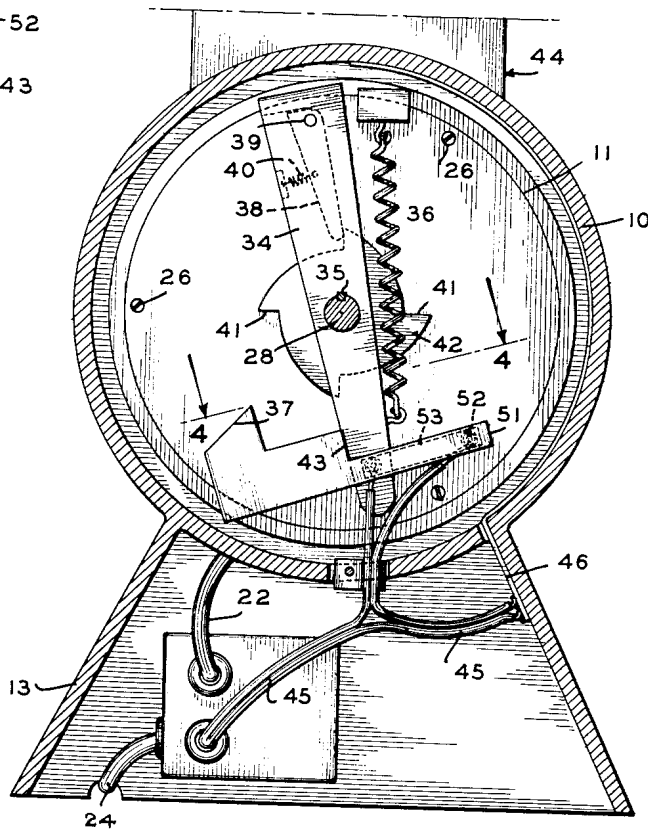


FIG. 3

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## ADVERTISING DISPLAY CIGARETTE LIGHTER

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Application June 9, 1953, Serial No. 360,505

4 Claims. (Cl. 40—28)

This invention relates to advertising and more particularly to advertising by the use of media located conspicuously in places frequented by the purchasing public, as well as to a device which is useful in addition to performing an advertising function by reminding the public of the products advertised.

Numerous and sundry devices have been employed for the advertising of a particular product or products, however interest in many of these has been only temporary, occasioned perhaps by the fact that there is only eye appeal present. It is recognized, of course, that in order to be most effective, the advertising device must have motion to attract the eyes, to provide the interest, and a utilitarian function to retain such interest.

It is an object of the invention to provide a combination lighter and advertising display whereby the user will be accommodated to the extent of being supplied with a light for his smoking and at the same time will be exposed to the advertising displayed.

Another object of the invention is to provide an advertising display cigarette lighter of simple, inexpensive, attractive and durable construction, which may be operated by a customer to light his cigar or cigarette and to operate the advertising device to move a display into view.

A further object of the invention is to provide a hollow advertising display of inner and outer cylinders of plastic or other transparent material illuminated electrically, and with mechanical means for rotating the inner cylinder step by step, for stopping such rotation, and for providing a lighter element with means for closing a switch to a circuit to such lighter element.

Other objects and advantages of the present invention will be apparent from the following description taken in conjunction with the accompanying drawings wherein:

Fig. 1 is a front elevation illustrating one application of the invention;

Fig. 2, a section on line 2—2 of Fig. 1;

Fig. 3, a fragmentary similar view with the parts in a different position; and

Fig. 4, a section on the line 4—4 of Fig. 3.

Briefly stated, the present invention comprises a cigarette lighter and advertising display having a horizontally disposed cylindrical casing with a window in one side. A transparent drum is rotatably mounted within the casing and is adapted to support advertising matter on its cylindrical surface which will be exposed through the window in the cylindrical casing. A light is located within the rotatable drum and serves to illuminate the advertising.

The drum is rotated step by step a quarter of a turn at a time and a braker is provided for stopping such rotation. An electric circuit is completed through a lighter at the end of each movement of said drum. In order to produce the desired rotation of the drum a ratchet is mounted on the drum and a pawl is carried by a lever fixed to the supporting shaft at one end of the drum and a knob is mounted on said shaft on the outside of the casing. The ratchet has four teeth or projections so that

the inner drum may be rotated a quarter turn with each use of the cigarette lighter. The cigarette lighter has an electric circuit closed with each quarter rotation of the drum. This circuit is closed by a switch within the casing, 5 such switch having a flexible arm which is moved into engagement with an underlying contact when the pawl carrying lever passes over such arm. In other words, when the knob and shaft to which it is attached is rotated the lever fixed to the shaft is moved across the flexible 10 switch arm to close the circuit. The lever on the supporting shaft can only rotate slightly less than a complete revolution due to fixed stops. When turned the lever is returned to its initial position by a spring.

With continued reference to the drawings the advertising display cigarette lighter of the present invention comprises a horizontally disposed cylindrical casing 10 and a cylindrical drum 11 rotatably mounted within said casing. The casing is preferably non-transparent while the drum is transparent and is adapted to receive advertising material on its exterior surface viewed through a window 12 20 in the casing. The casing is mounted upon a supporting base 13 such base having longitudinal or side walls outwardly and downwardly inclined to provide an enlarged bottom for enhancing its stability.

A shaft 14 is fixed in the end of the casing and serves as a support about which the drum can rotate on the bearing 15, axial movement of the drum being limited by a collar 16 held by a set screw 17. A capped spring braking member 18 is attached to the shaft and has flexible fingers 19 bearing against and braking the rotation of the drum by frictional engagement with its end plate.

On the end of the fixed shaft is mounted a light socket 20 and a light 21 to which electricity is supplied through a conduit 22 extending through an opening 23 in the shaft 14. The electrical conduit 22 receives its energy 35 from a source of supply through an outer conduit 24 having a terminal plug 25 which fits into a suitable socket. The end wall 56 of the outer casing is substantially circular and fits snugly within the peripheral wall of the casing 10, machine screws 35 or the like threaded into suitable apertures 54 being employed for maintaining the end wall in assembled position. The adjacent end wall of the drum 11 fits snugly within the end portion of the drum and is provided with one or more projecting pins 45 27 which are received within recesses 26 for maintaining an operative assembly as disclosed particularly in Fig. 1 at the lower right hand end of the drum. In this figure the right end of the drum is supported on a rotatable shaft 28 mounted in a bearing 29 in the end member of the casing 10, a knob 30 being fixed to the shaft by means of a set screw 31. On the opposite end of the shaft is fixed a collar 32 by means of a set screw 33. Upon rotation of the knob 30 the drum carrying the advertising material on its outer surface will be rotated 55 in a step-by-step manner to bring the advertising material into a position in front of the window of the outer casing and simultaneously to cause the cigarette lighter to be energized.

In order to accomplish this result a lever 34 is secured 60 on the shaft 28 by means of a key 35. This lever is normally maintained by a spring 36 in contact with a seating member 37. When the lever 34 is rotated in a clockwise direction a pawl 38 mounted on a pivot 39 on the lever 34, and normally maintained in a definite position by means of a cushioning spring 40, will be caused to engage one of the four teeth or shoulders 41 of a ratchet 42 attached to the end member of the drum 11 to rotate such drum one step or substantially 90°, the distance between the shoulders of the ratchet 42. It will be understood therefore that upon rotation of the knob 30 65 the small end of the lever will be rotated clockwise until it comes in contact with the shoulder 43 during which

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 movement of the pawl 38 will have engaged one shoulder 41 of the ratchet 42 and rotated the same and the drum to which it is attached substantially 90°. Due to the manner of its mounting, the pawl being urged in one direction by the spring 40, will be permitted to rotate on the pivot 39 against the action of the spring 40 and ride over the convex outer surface of the ratchet and drop into position against the next succeeding shoulder or tooth 41 in readiness for the next 90° rotation of the drum. Each time the lever 34 is rotated to bring it into contact with the shoulder 43 and is then released it will be returned to its initial position by the spring 36 so that its larger end engages the rest 37.

On the top of the outer casing is mounted a cigarette lighter 44 adapted to be heated sufficiently to enable a cigar or cigarette or pipe to be lighted therefrom, electrical energy being admitted through the conductors 24. To supply electricity additional conductors 45 are attached to a pair of conductor strips 46 which extend around the rear of the interior of the casing behind the drum. These strips have their upper ends connected by conductors 47 and 48 with contacts 49 and 50 of the lighter.

The supply of electrical energy to the lighter is controlled by a circuit maker and breaker 51 inserted in one of the conductors 45 between its connection with the conductors 24 and the conductor strips 46.

Such circuit maker and breaker, as illustrated in Fig. 4, includes terminals 52 to one of which is attached a spring strip 53 of copper or other conductive material, the free end of which strip is adapted to be moved into engagement with the other contact 52 by being engaged by the lever 34. The circuit is thus completed and is so maintained until the knob 30 is released. When the knob is released the spring 36 will rotate the arm 34 in a counter-clockwise direction to permit the free end of the spring contact strip 53 to move away from the corresponding contact 52 and break the circuit.

It will be understood that the present invention provides an advertising display cigarette lighter in which mechanical movement and the closure of an electric circuit are tied together so that in operating the device by a single knob a plurality of things are accomplished, and the purpose for which the device was designed is fulfilled. Also it will be apparent that the invention is not limited to a cigarette lighter but may be used in other relations.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is disclosed in the specification but only as indicated in the appended claims.

What is claimed is:

1. A plug-in portable electrical cigarette lighter comprising a horizontally disposed cylindrical non-transparent casing having outwardly and downwardly inclined sides providing an enlarged stabilizing base, a transparent drum rotatably mounted with said casing and constructed to receive advertising material on its exterior surface, said casing having a window through which a portion of said drum may be viewed, a shaft fixed in one end of said casing and serving as a bearing about which said drum is rotatable, a light on the inner end of said shaft within said drum, a braking member on said shaft resiliently engaging said drum for frictionally resisting rotation of the latter, a second shaft journaled in the other end of said casing with its inner end forming a bearing about which said drum is rotatable, a manipulating knob on the outer end of said second shaft, conductors providing electrical circuits to the light and cigarette lighter and for receiving electrical energy from a source of supply, coacting means between said casing and drum including ratchet and pawl mechanism operative upon rotation of said knob to impart step-by-step rotation to said drum; said ratchet and pawl mechanism including a lever mounted on the second shaft, an elongated spring having one end anchored to the casing and the other end attached to the far end of

the lever for maintaining said lever in one position, a pawl mounted on a pivot on the near end of said lever to engage the teeth of the ratchet, and means on the far end of the lever adapted to complete an electrical circuit to said lighter only at the end of each step-by-step movement while the electrical circuit to the light is maintained constant.

2. A plug-in portable electrical cigarette lighter comprising a horizontally disposed casing having a transparent drum rotatably mounted within said casing and constructed to receive advertising material on its exterior surface, said casing having a window through which a portion of said drum may be viewed, a shaft fixed in one end of said casing and serving as a bearing about which said drum is rotatable, a light on the inner end of said shaft within said drum, a braking member on said shaft resiliently engaging said drum for frictionally resisting rotation of the latter, a second shaft journaled in the other end of said casing with its inner end forming a bearing about which said drum is rotatable, a manipulating knob on the outer end of said second shaft, conductors providing electrical circuits to the light and cigarette lighter and for receiving electrical energy from a source of supply, coacting means between said casing and drum including ratchet and pawl mechanism operative upon rotation of said knob to impart step-by-step rotation to said drum; said ratchet and pawl mechanism including a lever mounted on the second shaft, an elongated spring having one end anchored to the casing and the other end attached to the far end of the lever for maintaining said lever in one position, a pawl mounted on a pivot on the near end of said lever to engage the teeth of the ratchet, and means on the far end of the lever adapted to complete an electrical circuit to said lighter only at the end of each step-by-step movement while the electrical circuit to the light is maintained constant.

3. A plug-in portable electrical cigarette lighter comprising a horizontally disposed casing having a drum rotatably mounted within said casing and constructed to support advertising material thereon, said casing having a window through which a portion of said drum may be viewed, a shaft fixed in one end of said casing and serving as a bearing about which said drum is rotatable, means for illuminating the interior of said casing, a braking member on said shaft resiliently engaging said drum for frictionally resisting rotation of the latter, a second shaft journaled in the other end of said casing with its inner end forming a bearing about which said drum is rotatable, a manipulating knob on the outer end of said second shaft, conductors providing electrical circuits to the lighter and to the illuminating means and for receiving electrical energy from a source of supply, and coacting means between said casing and drum operative upon rotation of said knob to impart step-by-step rotation to said drum; said coacting means including a lever mounted on the second shaft, an elongated spring having one end anchored to the casing and the other end attached to the far end of the lever for maintaining said lever in one position, a pawl mounted on a pivot on the near end of said lever to engage the teeth of a ratchet, and means on the far end of the lever adapted to complete an electrical circuit to said lighter only while the circuit to the illuminating means is maintained constant.

4. An electrical cigarette lighter and illuminated display device comprising a casing having a window, a rotatable cylinder within said casing on which a plurality of advertising exhibits is to be mounted for selective display through said window, an electrical cigarette lighter mounted on the exterior surface of said casing in a position for use, a knob extending from one end of said casing and mounted on a shaft for rotary movement, pawl and ratchet means connecting said knob to said cylinder for step-by-step actuation of said cylinder through said knob, electrical means within said cylinder for illuminating said exhibits continuously, brake means for holding said cyl-

inder stationary until rotary force is applied, conductor means connecting a source of electrical energy to both said cigarette lighter and said illuminating means, said conductor means further comprising a pair of contacts normally open; said pawl and ratchet means including a lever mounted on said shaft, an elongated spring having one end anchored to the casing and the other end attached to the far end of the lever for maintaining said lever in one position, a pawl mounted on a pivot on the near end of said lever to engage the teeth of the ratchet, and means on the far end of the lever adapted to close said pair of contacts at the end of the limited travel of the knob to energize the electrical circuit of said cigarette lighter only.

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