June 18, 1957 L. C. FRENCH 2,795,898

ILLUMINATED AERIAL TOP

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Fig-1-

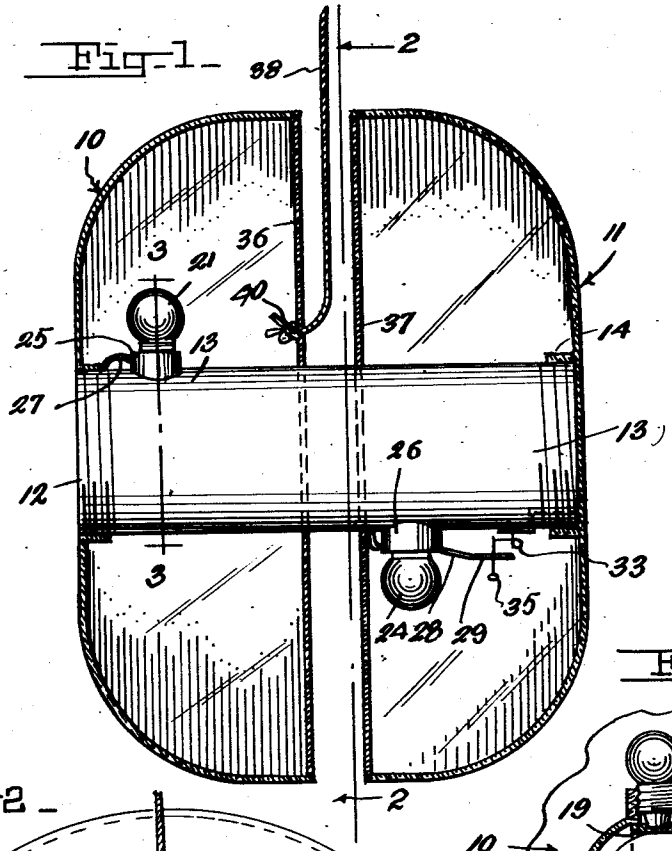



Fig-3-

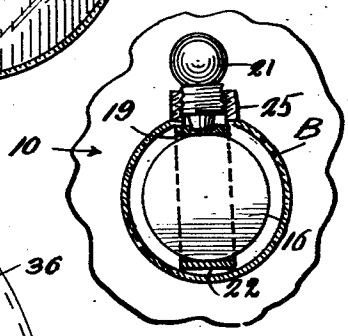
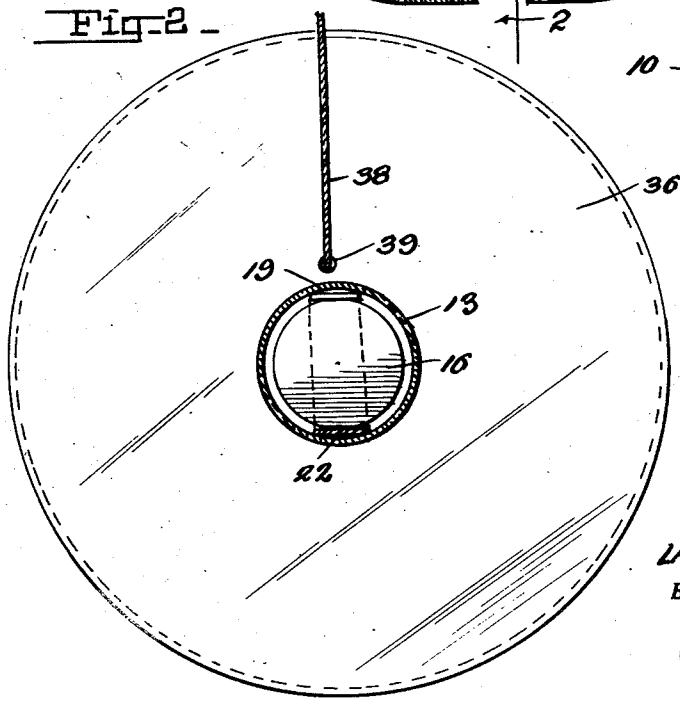



Fig-2-




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Fig. 4

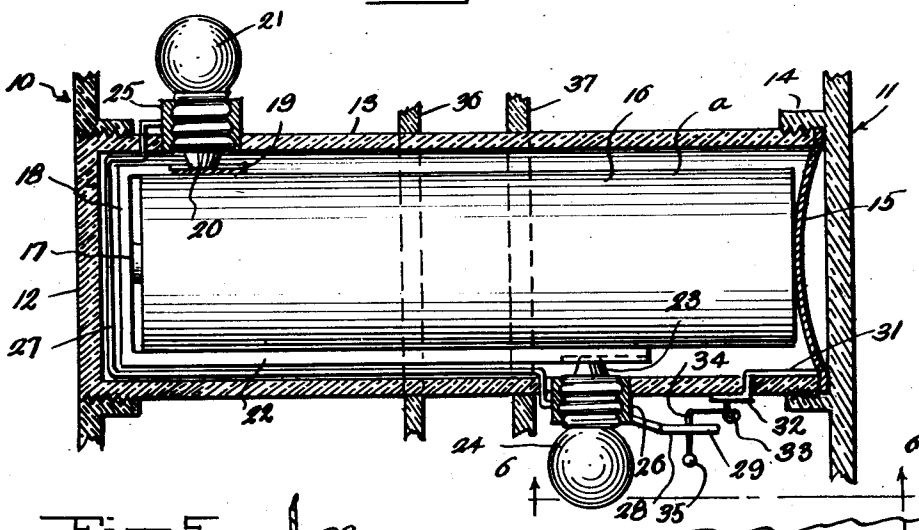
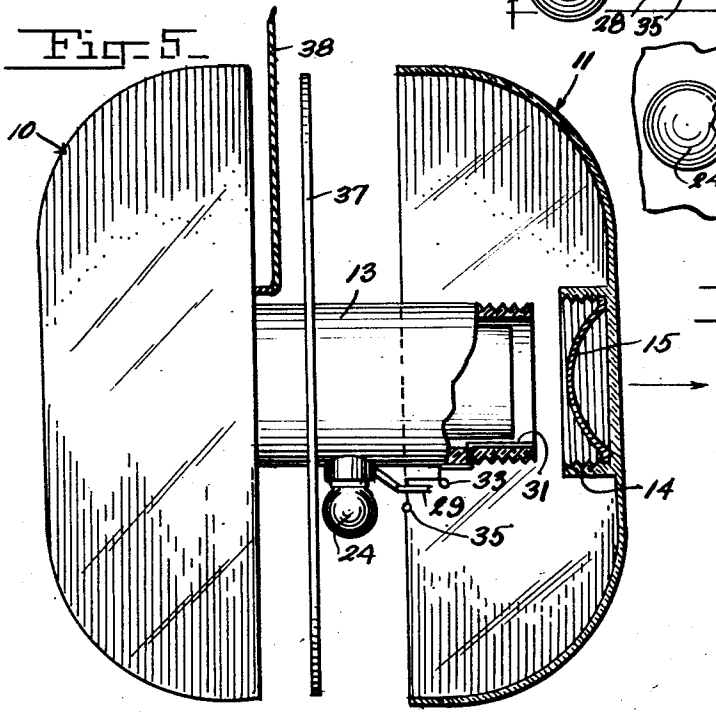



Fig. 5



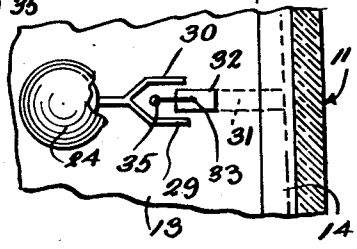




Fig. 6

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United States Patent Office 2,795,898 Patented June 18, 1957



2,795,898

# ILLUMINATED AERIAL TOP

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Application June 10, 1955, Serial No. 514,442

1 Claim. (Cl. 46—228)

This invention relates to amusement devices and more particularly to the well-known string operated aerial top.

The principal object of the present invention is to provide an aerial top equipped with illuminating means whereby the toy is fully illuminated in a manner which is highly pleasing to the eye when the device is operated in the dark.

Another object of the invention is to provide an illuminated aerial top in which the parts can be easily disassembled for the purpose of repairs or replacements.

Still another object of the invention is to provide an illuminated aerial top in which the parts are simply constructed and capable of being manufactured at a low monetary figure.

These and various other objects and advantages of the invention will become apparent to the reader of the following description.

In the drawings:

Figure 1 is a diametrical sectional view through the improved top with the battery case in elevation.

Figure 2 is a section taken substantially on line 2—2 of Figure 1.

Figure 3 is a section taken substantially on line 3—3 of Figure 1.

Figure 4 is a fragmentary enlarged sectional view through the central portion of the structure.

Figure 5 is an exploded side elevational view of the structure, with one of the shells and a portion of the battery case in section.

Figure 6 is a section taken substantially on line 6—6 of Figure 4.

Referring to the drawings wherein like numerals designate like parts, it can be seen that numerals **10, 11** generally refer to a pair of bowl-shaped shells, the bowl **10** having a central opening, the edge portion of the bowl at this opening being formed with threads to accommodate the threaded enclosed end portion **12** of a cylindrical battery case **13**, the other end of which is opened and formed with threads for cooperation with internal threads of a collar **14** that projects inwardly from the outer wall of the shell **11**, as is clearly shown in Figure 4. Interposed between this end of the case **13** and said wall of the shell **11** is a contact spring **15** of curved form and which is intended to engage the "zinc" part of a dry cell battery **16**, placed within the case **13**.

This type of battery **16** has a jacket *a* of insulation and has the usual "carbon" electrode contact **17**, which engages the portion **18** of a contact bar, which has a short leg **19** extending laterally from one end and along one side of the jacket *a* and against which the contact **20** of a lamp **21** can engage and which also has a longer leg **22** extending along the diametrically opposite side of the insulation jacket *a* and against which the contact **23** of a second lamp **24** can engage.

Suitably secured in openings in the case **13** are internally threaded sockets **25, 26** with which the threaded contact sleeves of the bulbs **21, 24** engage. A conductor



wire **27** extends from the socket **25**, through an opening in the case **13** and to the socket **26**. Of course this is a conductor with a covering of insulation.

Extending from the socket **26** is a yoke **28** having a pair of arms **29, 30**. (See Figures 4 and 6.)

A contact strip **31**, which makes contact with the spring **15**, extends outwardly through an opening in the case **13** and has a short arm **32** from which a hair spring **33** extends. This spring is preferably provided with a coil so as to stabilize its form and has an outstanding leg **34** with a weight **35** at its end.

The shell **10** has an inner wall **36** and the shell **11** has an inner wall **37**. These walls are fixed to the case **13**, this being shown in Figure 5.

The shells **10, 11** are of transparent or translucent material, preferably a plastic material. These shells may be of any color and of course the lamps **21, 24** may also be of the same or varied colors.

As is apparent in Figure 4, either one of the shells can be easily unscrewed from the battery case **13** so that the lamps **21, 24** can be replaced or repairs made.

In the use and operation of this amusement device, the parts are assembled as shown in Figure 4, the shells **10, 11** assuming the position with respect to each other as shown. There is a cord **38** which extends through an opening **39** in the wall **36** and is knotted as at **40** to prevent retraction through said opening.

The cord **38** is wound around the case **13** in order to start the amusement device.

As is usual in the operation of the conventional aerial top, the outer end of the cord **38** is held while the top is thrown outwardly or dropped. The structure rotates rapidly in one direction and by yielding the cord when the structure reaches the lower end, the top will begin to wind itself onto the cord and move upwardly on the cord, rewinding the cord in the opposite direction. This operation can be repeated time and time again so long as the operator affords the yielding motion above referred to at the lower end of the travel of the spinning structure.

It will be observed, that current from the battery, when the top is in operation, will pass from the carbon post contact **17** of the dry cell battery **16** to the contact bar **18**. Current will pass from the leg **19** through the lamp **21** and socket **25**, by way of the conductor **27** to the socket **26** and through the lamp **24** and socket **26** to the yoke **28** and hair spring contact **33** and from there to the contact strip **31** and spring **15** which is in engagement with the opposite side of the battery **16**.

When the top is spinning in one direction, centrifugal force promoted by the presence of the weight **35** will cause the contact **33**, by centrifugal force to be positioned in one direction against the arm **29**, thus completing the electrical circuit, and when the top reverses itself, centrifugal force takes effect swinging the hair spring contact **33** in the opposite direction to engage the other arm **30** of the yoke **28** completing the circuit including the battery and lamps **21, 24**.

However, when the top is idle, the lights are extinguished because the contact leg **34** will assume a spaced position between the arms **29, 30** of the yoke **28**, as shown in Figure 6.

The ends of the bar **18** are formed with grooves at the ends thereof to receive the base portions of the lamps **21, 24**, the purpose for this being to prevent the bar from moving away from the lamps during rotation of the assembly.

While the foregoing description sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention what is claimed as new is:

A device of the character described comprising a pair of hollow bowl-shaped shells having their inner edges in opposed spaced relation, one of said shells having a centrally disposed threaded opening, an internally threaded collar centrally disposed on the inner face of the other shell, a cylindrical battery case threaded at each of its ends respectively in said opening and said collar, an inner wall for each of said shells connected to its inner edges and each of said walls encompassing said case, a



lamp socket in each end portion of said case, a lamp in each socket, a cord connected to one wall and adapted to be wound upon said case between said walls, a battery in said case, and means electrically interconnecting said battery and said lamps.

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