

Dec. 17, 1940.

E. J. BORBA
ILLUMINATED BATON
Filed Sept. 16, 1939

2,225,151

Fig. 2.

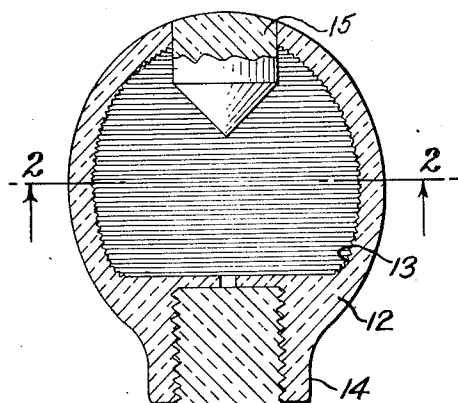


Fig. 1.

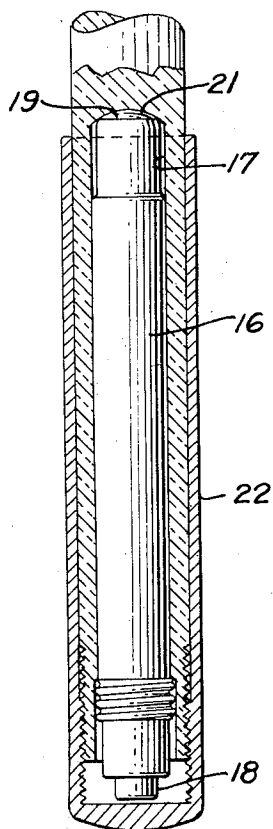
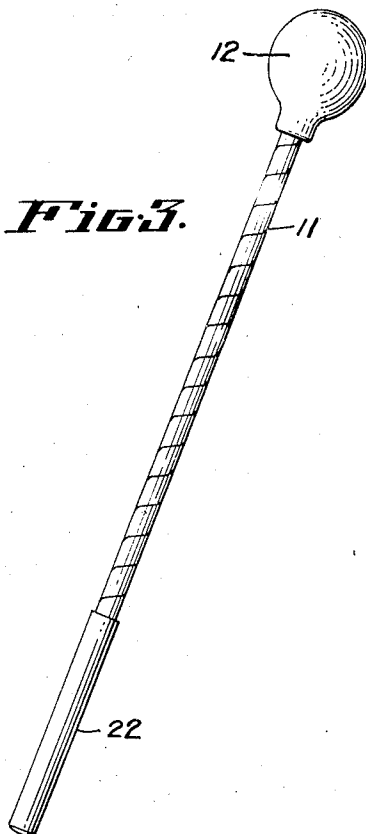


Fig. 3.



INVENTOR.
EDWARD J. BORBA
BY *Arlington White*
ATTORNEY.

UNITED STATES PATENT OFFICE

2,225,151

ILLUMINATED BATON

Edward J. Borba, South San Francisco, Calif.

Application September 16, 1939, Serial No. 295,340

1 Claim. (Cl. 240—6.42)

The invention, in general, relates to batons, clubs and the like, such as the so-called Indian clubs. More particularly, the invention relates to an illuminated baton or club having associated therewith means for displaying desired illuminated design motifs.

A primary object of the present invention is to provide a relatively thin, light-weight, balanced baton incorporating means for illuminating the same.

Another object of my improvement is to provide an illuminated baton of the indicated nature which is additionally characterized by embodying means for displaying various illuminated design motifs.

A still further object of the invention is to provide an illuminated baton incorporating means for emitting a light, either colored or white, which may be flashed off and on at will.

Another object of the present improvement is to provide a relatively inexpensive illuminated baton which is usable without likelihood of injury.

A still further object of my invention is to provide a non-breakable or shatter-proof illuminated baton of the indicated nature.

The foregoing and other objects are attained in the preferred embodiment of my invention which is illustrated in the accompanying drawing. It is to be understood that I am not to be limited to the precise embodiment or precise arrangement of parts shown, as the invention, as defined in the appended claim, can be embodied in a plurality and variety of forms.

Referring to the drawing:

Figure 1 is an enlarged sectional elevation of a preferred embodiment of the invention.

Figure 2 is a view taken on the line 2—2 of Figure 1.

Figure 3 is a perspective view of the embodiment of my invention shown in Figure 1.

In its preferred form, the illuminated baton of my invention preferably comprises a rod possessing the property of transmitting light longitudinally therethrough, a tip removably fastened to one end of said rod, together with a source of light within said rod, means for flashing said light on and off, and means on said rod affording diffusion of the light rays emanating from said source of light.

In accordance with my invention, I provide a relatively thin, light-weight rod 11 which preferably is fabricated from a transparent plastic material, such as from the polymers of acrylic acid derivatives. A suitable material is obtain-

able in solid rods in the open market and sold as "lucite" or "pantalite." The substance "lucite" is a transparent, water white, optically perfect material capable of transmitting light rays longitudinally thereof and is non-breakable and shatter-proof since it is an acrylic resin. This material can be purchased in desired lengths and diameters. Preferably, the rod 11 of the baton of my invention is circular in cross-section although a rod of non-circular cross-section may be used equally as well, as desired. Any other plastic material possessing the properties of "lucite" or "pantalite" may be used for fabricating the rod.

As illustrated, one end of rod 11 is threaded for removably receiving a transparent tip 12 which preferably is fabricated from the same material as rod 11. In the embodiment of the invention illustrated in the accompanying drawing, the tip 12 is formed to a generally spherical shape and made hollow and air exhausted therefrom to provide a partial vacuum. Moreover, I preferably polish or buff the interior surface of tip 12, as indicated by the concentric circles 13 of Figure 2 of the drawing, so that any light rays transmitted longitudinally throughout the rod and passing to the tip 12 will be diffused in every direction and thus providing a glowing tip when the rod is illuminated. An internally threaded boss 14 is formed on the tip 12 for enabling the convenient attachment of the tip to the rod. Preferably, a closure member 15, having a conical extension, is tamped into the opening of tip 12 after the air has been exhausted therefrom, although any desired shape of closure member 15 may be used. While I have depicted a generally spherical tip 12 for removable attachment to the rod 11, any other desired shape of tip may be used, such as a star-shaped tip or star and crescent, it being understood that any of these tips used is hollowed out and polished, or buffed interiorly to effect diffusion of the light rays.

In accordance with the invention, a conventional dry cell flashlight battery 16 is mounted within the rod 11 at the end thereof opposite to the end carrying tip 12. Preferably, the battery is mounted in a well 17 formed in the rod and the actuating lever 18 of the battery is faced away from the tip 12 with the lens 19 of the battery facing the tip so that light emanating from the battery lamp, not shown, behind lens 19 will be directed toward the tip 12. With the lamp energized, light rays will pass longitudinally of rod 11 into tip 12 and will be diffused in all directions therefrom. Preferably, the battery 16

has a casing of circular cross-section which is nearly equal in its outside diameter to the inner diameter of the rod, or diameter of well 17, so that a tight sliding fit between the battery and the rod is had. In operative position, the lens 19 of the battery is in abutment with an interior lens 21 in the rod 11 which is concavo-convexo in shape to conform with the lens of the battery and which is formed within the rod 11 at the time of forming well 17 therein.

The illuminated baton of my invention includes a removable handle 22 which is conveniently internally threaded for engaging an externally threaded portion of rod 11, all as shown in Figure 1 of the drawing. The handle 22 preferably is made of a metal plated with chromium to enhance its appearance, but may be made of "lucite," if desired, and serves to flash the lamp of the battery off and on since it can be screwed onto the rod to a distance adjacent to the actuating lever 18 of the battery. By a slight additional turning up of the handle, the lever 18 of the battery will be pushed into engagement with the battery contact to light the lamp; while turning of the handle in the opposite direction permits the actuating lever 18 of the battery to recede from the battery contact to shut-off the lamp. Thus an orchestra leader, or other person handling the baton, can flash light on and off in the baton by slight manipulation of the handle. While it is customary to employ an uncolored lamp and lens in the conventional dry cell battery for emitting a clear uncolored light, it is clear that a lamp of any desired color can be used for emanating a colored light therefrom. It is also clear that colored transparent discs may be installed within the tip 12 in the path of the light transmitted to afford variable color diffusions of light from the tip even though a white light is transmitted longitudinally throughout the rod 11.

The size and weight of the tip 12 and handle 22 are such that, when attached to the rod 11, the complete baton is balanced about the longitudinal center thereof.

The present invention embraces a rod 11 which is ground or etched externally in desired design motifs, the light diffusing through the baton at the places etched. In the embodiment of the invention shown in the accompanying drawing, see particularly Figure 3, the rod 11 is etched spirally

so that the baton simulates a candy stick or conventional barber pole. However, any other design motif may be etched on the baton for diffusing the light in such designs.

While I have depicted an illuminated baton of my invention in the accompanying drawing as an especial adaptation thereof, the invention is entirely suitable for adaptation to other similar objects such as policemen's clubs and particularly to such objects as drum sticks and Indian clubs wherein numerous ornamental design motifs are embodied and which can be attractively brought to visibility in illuminated color effects, all in accordance with the invention hereinabove described.

It is to be understood that the appended claim is to be accorded a range of equivalents commensurate with the scope with the advance made over the prior art.

I claim:

An illuminatable baton, club or the like, said baton, club or like structure consisting of a rod fabricated from a material capable of transmitting light rays longitudinally thereof; the major portion of said rod being of solid cross-section, said rod having a well therein adjacent to one end thereof, a tip detachably secured to the other end of said rod, a dry cell flashlight battery mounted in said well; said battery including a lamp at one end facing toward said tip and a push-lever for making and breaking an electrical contact to energize and de-energize said lamp; said tip being fabricated of light conducting material and formed to diffuse light rays transmitted thereto from said rod whereby the tip is illuminated when said lamp is energized and said tip being of such dimensions that the baton, club or like structure inclusive of all elements thereof is balanced about its longitudinal center, and a handle rotatably mounted on the end of said rod opposite said tip; said handle being rotatable between two extreme positions so that rotation of said handle in one direction to one extreme position and bringing it to rest in such position effects a movement of said push-lever toward said tip to energize and maintain the energization of said lamp, while rotation of said handle in the opposite direction permits movement of said push-lever away from said tip to de-energize said lamp.

EDWARD J. BORBA.