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A. J. DESIMONE

2,253,952

FLASHLIGHT

Original Filed April 30, 1938

*Fig. 1.*

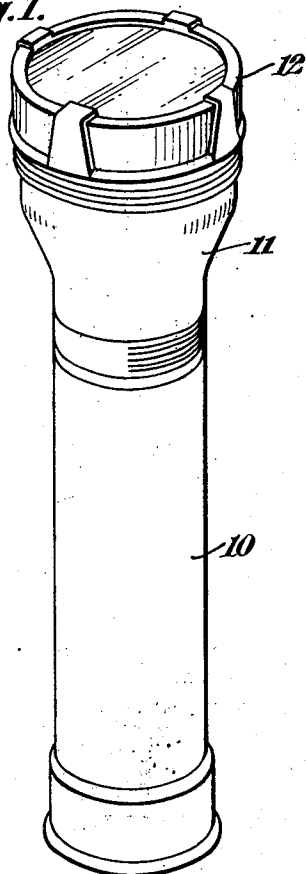


*Fig. 2.*

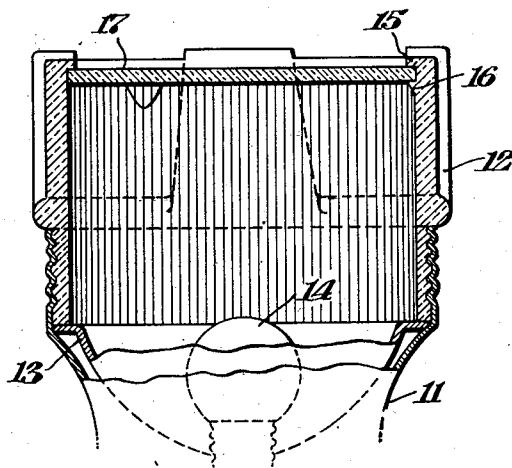


*Fig. 4.*

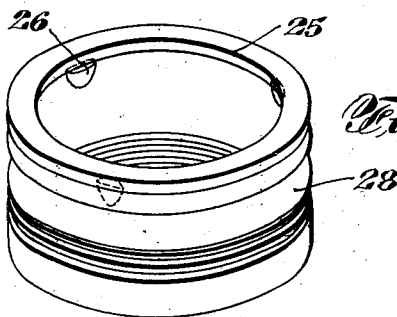


*Fig. 6.*

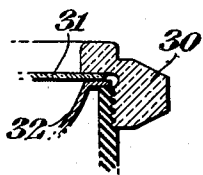


*Fig. 5.*

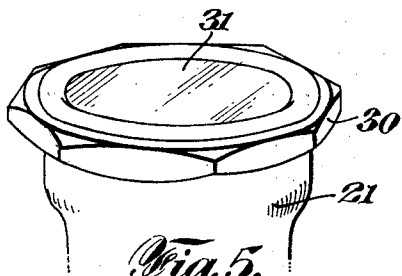
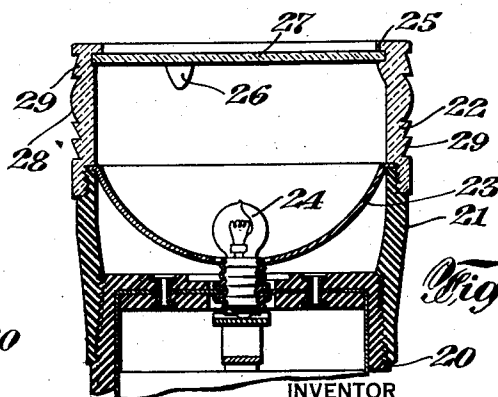


*Fig. 3.*



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## UNITED STATES PATENT OFFICE

2,253,952

## FLASHLIGHT

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a corporation of New Jersey

Original application April 30, 1938, Serial No.  
205,145. Divided and this application March  
23, 1940, Serial No. 325,489

5 Claims. (Cl. 240—10.6)

This invention relates to flashlights and has for an object a flashlight having provision for transmitting either white or colored light radially of its casing. This application is a division of Anthony J. Desimone application Serial No. 205,145 filed April 30, 1938, which has issued as Patent No. 2,225,825, dated Dec. 24, 1940.

According to this invention, a light-transmitting member is incorporated in the flashlight head in such manner that it is illuminated by light from the bulb. Preferably, this light-transmitting member is composed of thermoplastic material such as cellulose acetate, but may be composed of any other translucent material suitable for the purpose. The light-transmitting member may be colored so that colored light is transmitted or may be of such composition that it transmits white light.

Other objects, novel features and advantages of this invention will become apparent from the following specification and accompanying drawing, wherein:

Fig. 1 is a perspective view of a flashlight embodying one modification of the invention.

Fig. 2 is a fragmentary longitudinal section of the embodiment of Fig. 1;

Fig. 3 is a fragmentary longitudinal section of a different embodiment of the invention;

Fig. 4 is a perspective view of the translucent member of Fig. 3;

Fig. 5 is a fragmentary perspective view of a third embodiment of the invention, and

Fig. 6 is a fragmentary longitudinal section of the embodiment of Fig. 5.

A flashlight tube 10 composed either of metal or thermoplastic material has a flared head 11 provided at its outer end with screw threads. A cylinder 12 of translucent or transparent material is threaded at one end for engagement with the threads in the head 11. A reflector 13 is arranged within the head 11 and is held in assembled relation thereto by the member 12. Also, a bulb 14 suitably supported by means, not shown, is arranged within the reflector, the reflector and bulb being arranged beyond the inner end of the cylinder 12. The light-transmitting cylinder 12 is provided at its outer end with an inwardly projecting integral flange 15 and is likewise provided at its inner surface with a plurality of integral lugs 16 spaced slightly from the flange 15 with which they co-operate to receive and hold the edge of a lens 17 composed of flexible light-transmitting material, such material being well known in the flashlight art. The lens 17 is assembled with the member 12 merely by snapping it into

place over the lugs 16, the lens yielding sufficiently to permit its rim to pass over such lugs.

The cylindrical member 12 preferably is composed of thermoplastic material such, for example, as cellulose acetate and is produced by a molding operation during which the threads are formed in its end. This member, however, may be composed of any other transparent or translucent material suitable for the purpose such, for example, as glass. The light-transmitting member may be given any desired color so that it will transmit the desired colored light and may, if desired, be transparent so as to transmit white light. Also, as shown in Fig. 4, the cylindrical member may be provided with an annular portion of its outer surface arcuate in cross-section and have other annular portions of its outer surface defining ribs, the cross-section of which is an angle having one leg perpendicular to the axis of the cylinder or ring and having its other leg inclined to said axis.

In the modification illustrated in Figs. 3 and 4, a casing 20 of molded insulating material has screw-threaded thereto a head 21. A cylinder 22 of translucent or transparent material is provided at one end with interior threads which engage exterior threads on the head 21 to interconnect the cylinder and head. A reflector 23 has a flange resting on the end of the head 21 and is held in place by the cylinder 22. A bulb 24 is supported within the reflector. The cylinder 22 is provided at its outer end with an inwardly projecting integral flange 25 and is likewise provided on its inner surface with a plurality of integral lugs 26 spaced slightly from the flange 25 with which they co-operate to receive and hold the edge of a lens 27 composed of the same material as the lens 17 of Figs. 1 and 2. The cylinder member 22 also preferably is composed of the same thermoplastic material as the cylinder member 12 and is produced by a molding operation during which the threads are formed in it as well as the flange 25 and lugs 26. The cylinder member 22 also is formed with an exterior annular portion 28 of arcuate cross-section and is formed with other annular portions 29 defining the ribs. The cross-section of each of the ribs 28 is an angle having one leg perpendicular to the axis of the cylinder or ring 22 and having its other leg inclined to said axis.

In the modification illustrated in Figs. 5 and 6, the head 21 of Fig. 3 is equipped with a ring 30 of translucent or transparent material which is threaded to the head and clamps the lens 31 and reflector 32 to the head. The ring 30 likewise is

preferably composed of the same thermoplastic material as the members 12 and 22, but may be composed of any other translucent material suitable for the purpose. Preferably, the ring 30 is provided with a plurality of flat faces defining an octagon or other similar figure to prevent rolling of the flashlight when laid on its side and also to facilitate application and removal of the ring.

I claim:

1. A flashlight comprising a casing, a reflector and bulb assembly mounted in one end, a light-transmitting cylindrical member projecting from the casing beyond said assembly, and a flexible transparent lens arranged in said cylindrical member, said member having an inwardly projecting integral flange engaged by one face of said lens and a plurality of inwardly projecting integral lugs engaging the remaining lens face.

2. A flashlight comprising a tubular casing threaded at one end, a reflector and bulb assembly mounted in said end, a light-transmitting cylindrical member threaded at one end to cooperate with the casing thread, and a flexible transparent lens arranged in said cylindrical member, said member having an inwardly projecting integral flange engaged by one face of said lens and a plurality of inwardly projecting integral lugs engaging the remaining lens face.

3. A flashlight comprising a tubular casing threaded at one end, a reflector and bulb assembly mounted in said end, a light-transmitting cylindrical member threaded at one end to cooperate with the casing thread, a flexible transparent lens supported in the other end of said cylindrical member, said member having an annular portion of its outer surface arcuate in cross-section, said member having an inwardly

projecting integral flange engaged by one face of said lens, and a plurality of inwardly projecting integral lugs engaging the remaining lens face.

4. A flashlight comprising a tubular casing threaded at one end, a reflector and bulb assembly mounted in said end, a light-transmitting cylindrical member threaded at one end to cooperate with the casing thread, a flexible transparent lens supported in the other end of said cylindrical member, said member having annular portions of its outer surface defining ribs, the cross-section of which is an angle having one leg perpendicular to the axis of the cylinder and the other leg inclined to said axis, said member having an inwardly projecting integral flange engaged by one face of said lens, and a plurality of inwardly projecting integral lugs engaging the remaining lens face.

5. A flashlight comprising a tubular casing threaded at one end, a reflector and bulb assembly mounted in said end, a light-transmitting cylindrical member threaded at one end to cooperate with the casing thread, a flexible transparent lens supported in the other end of said cylindrical member, said member having an annular portion of its outer surface arcuate in cross-section, and annular portions of its outer surface defining ribs the cross-section of which is an angle having one leg perpendicular to the axis of the cylinder and the other leg inclined to said axis, said member having an inwardly projecting integral flange engaged by one face of said lens, and a plurality of inwardly projecting integral lugs engaging the remaining lens face.

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