Feb. 23, 1937. Y. MIYAOKA 2,071,557

COMBINATION FLASHLIGHT AND HEADLIGHT

Filed May 15, 1935

Fig. 1.

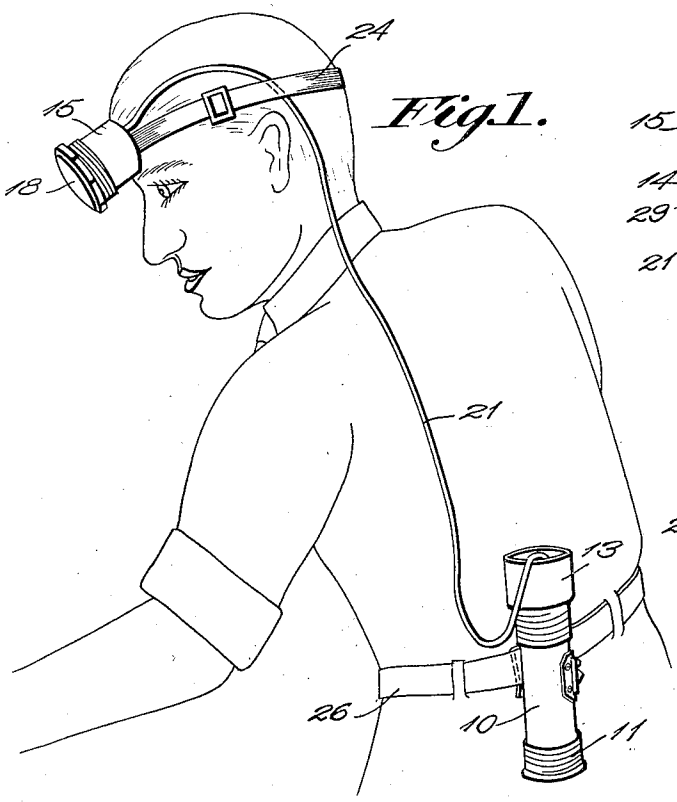


Fig. 2.

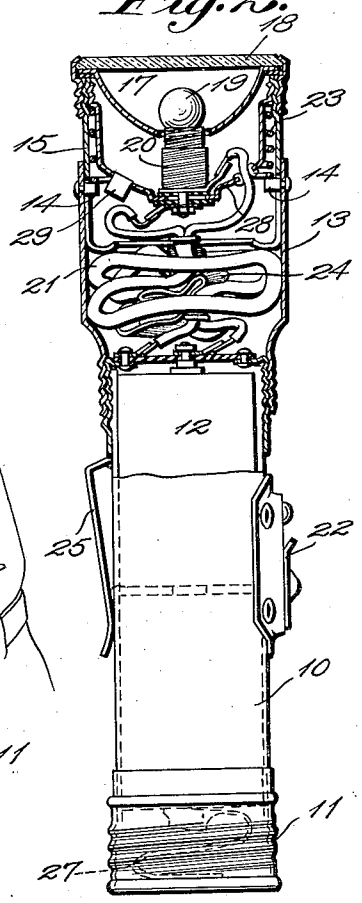


Fig. 3.

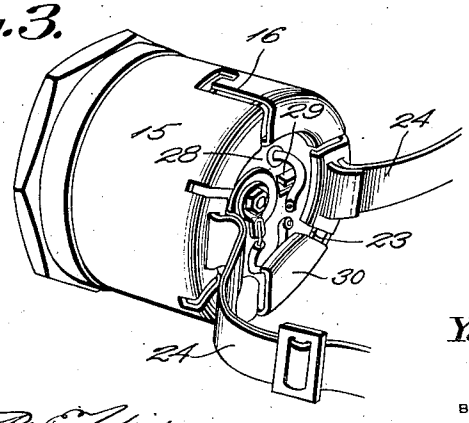
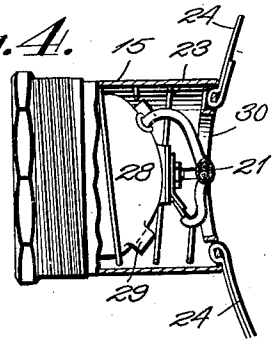


Fig. 4.



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COMBINATION FLASHLIGHT AND HEADLIGHT

Yasutaka Miyaoka, Colfax, Calif.

Application May 15, 1935, Serial No. 21,642

1 Claim. (Cl. 240—10.6)

The invention relates to an electric hand flashlight and more especially to a combined flashlight and headlight.

The primary object of the invention is the provision of a light of this character, wherein a separable head is provided so that it can be worn upon the head of a person rendering the light especially useful to miners or other artificers, the head being normally fitted with the shell or barrel of the light and in this condition is serviceable as a hand flashlight.

Another object of the invention is the provision of a light of this character, wherein the construction thereof is novel in form so that it can be conveniently converted from a hand light to a headlight and can be readily carried on the person either in the hand or upon a garment as worn by the person.

A further object of the invention is the provision of a light of this character, wherein the focus of the same can be altered or adjusted as to meet the requirements of the user.

A further object of the invention is the provision of a light of this character, wherein the head band for the securing of the light upon the head of a person and extension wires are concealed within the shell or barrel when the separable head of the light is fixed to the barrel and in this condition the light is serviceable as a hand light.

A still further object of the invention is the provision of a light of this character, which is simple in construction, thoroughly reliable and efficient in its operation, convenient for handling, strong, durable, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention and pointed out in the claim hereunto appended.

In the accompanying drawing:

Figure 1 is a pictorial perspective view showing the light constructed in accordance with the invention carried by a person and worn upon the head of such person.

Figure 2 is a side elevation partly in section of the light when converted as a hand flashlight.

Figure 3 is a perspective view of the separable head of the light.

Figure 4 is a side elevation partly in section thereof.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, the light comprises a cylindrical barrel or shell 10 having threaded thereon at one end a removable end cap 11 and this shell or barrel accommodates dry cell batteries 12, these being of conventional kind. At the other end of the barrel or shell 10 is a cylindrical sleeve 13 the latter being separably threaded upon the end of said barrel or shell and is of greater diameter than the latter.

Fixed interiorly of the sleeve 13 at diametrically opposite points are keeper lugs 14 and insertable within this sleeve 13 is a separable head 15, it having at diametrically opposite points bayonet slots 16 accommodating the lugs 14 so that the said head can be detachably secured in the sleeve 13. The head 15 accommodates therein a reflector 17, a lens 18 and an electric light bulb 19, respectively, the bulb 19 being threaded into a socket 20 built within the socket carrier 28 within the head 15. The socket 20 has leading thereto extension wiring 21 which folds within the sleeve 13 when the head 15 is fastened therein. These wires 21 are in electrical connection with the batteries 12 within the barrel 10. The barrel 10 carries a hand switch 22 which opens and closes the circuit to the light bulb 19 through the wires 21.

Fitted within the head 15 is a coiled tensioning spring 23 adapted to play upon the lugs 14 when the same are engaged in the slots 16 so that the lugs 14 will become latched in the slots when the head 15 is joined with the sleeve 13.

Connected with the head 15 is an adjustable strap or band 24 to embrace the head of a person so that the head 15 carried by this strap or band 24 can be worn at the forehead as is clearly illustrated in Figure 1 of the drawing. The barrel 10 carries exteriorly thereof a spring clip 25 so that it can be engaged with the garment as worn by the user of the light, as for example, upon the belt 26 as shown in Figure 1 of the drawing. This strap or band 24 as well as extension wires 21 when disengaged from the head of the user of the light can be tucked into the sleeve 13 prior to the fastening of the head 15 in the sleeve as is clearly shown in Figure 2 of the drawing.

The cap 11 has therein the usual spring 27 to hold the batteries 12 in working relation and position within the barrel 10 of the light.

When the head 15 is fastened in the sleeve 13 of the light the same is usable as a hand flashlight in the conventional manner.

The bulb socket carrier 28 is screw threadedly engaged within the head 15 and is provided at the rear side with lugs 29 through the medium of which it may be turned to adjust the bulb with relation to the reflector 17 and thus alter the focus of the lamp.

The rear inwardly flanged edge of the head 15 is laterally slitted to render the same yieldable and is turned inwardly and formed or curved to snugly and comfortably fit the forehead of a user as indicated at 30 in Figure 4 of the drawing.

What is claimed is:

In a portable electric light, in combination with a housing for battery cells and having means for connecting it to a waist belt, a sleeve on the housing for an extension cable which has its wires connected to the battery terminals at one end of said cable, inwardly extending lugs on said sleeve, a tubular head having bayonet slots for the lugs, said head having a lens, a lamp bulb carrying socket member in the head and connected with the wires at the other end of the cable, a coiled expansion spring housed between the head and the socket member for exerting a pressure against the lugs to latch the same in the slots, an inwardly directed ring flange on the inner end of the head and having a plurality of slits giving resiliency thereto, a strap carried by the flange for the fastening of the tubular head to a head of a person when the said head is detached from the housing, and a switch carried exteriorly on the housing for controlling current from the battery to the socket member.

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