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R. E. STINSON
TWO-PART CLAMP FOR ATTACHING ILLUMINATING
MEANS TO GUN SIGHTS
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Fig. 1.

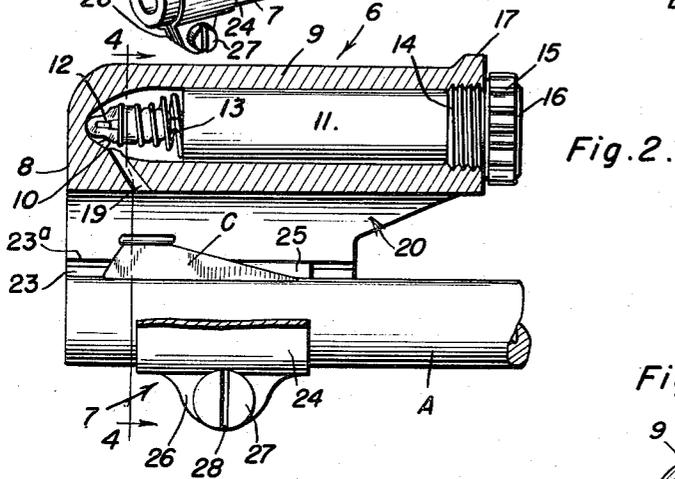
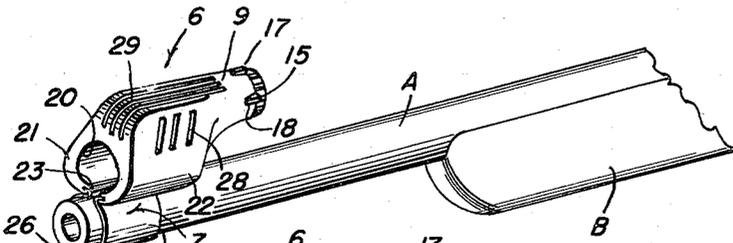


Fig. 2.

Fig. 3.

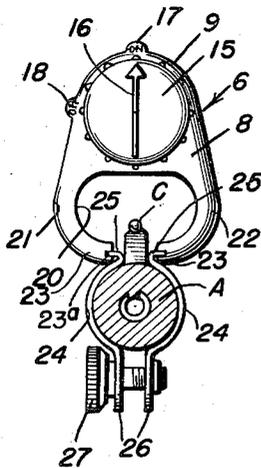
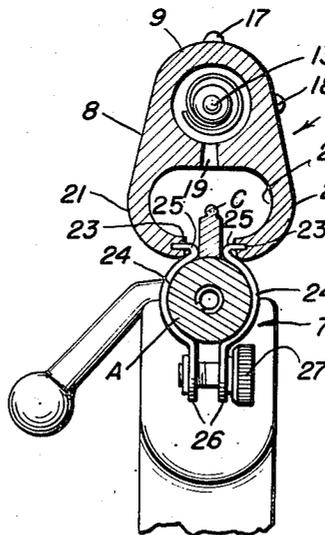


Fig. 4.



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TWO-PART CLAMP FOR ATTACHING ILLUMINATING MEANS TO GUN SIGHTS

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3 Claims. (Cl. 240—6.41)

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The present invention relates to a gun barrel attachment embodying a source of illumination and ways and means to confine and focus light rays therefrom on a front sight in a manner sufficient to enable said sight to be employed, with reasonable accuracy, under adverse sighting conditions.

There are times, when one is hunting at night or at dusk, when the conditions of existing natural light are such that effective sighting is almost impossible. This is particularly true when the gunner seeks to aim and fire from thick woods, underbrush and the like. Because of such circumstances I have devised a gun barrel attachment wherein a source of artificial light, such as from a flashlight or the like, handily illuminates the front sight with sufficient effectiveness that it may be satisfactorily employed, that is, where the object being shot at, is fairly well visible.

It will be seen from the foregoing, that I am full well aware that flashlight batteries have been built into special encasing attachments and have been used in divers ways for fulfilling the requirements of illuminators in the class under advisement. In carrying out the principles of the present invention I have devised a barrel sight illuminator attachment, wherein novelty is predicated, primarily, upon the details of construction. To this end, one object of the invention is to provide a battery holder and light rays directing unit, same being provided with satisfactory clamping members whereby it may be effectively perched upon the barrel within the vicinity of the sight, and readily applied or removed.

More specifically, it is an object of the invention to provide a plastic body, which has a socket forming a receptacle for a dry cell and also having coacting depending wall portions in opposed relation defining an open-ended tunnel which houses the gun sight and confines the projected light rays effectively on said sight.

Another object of the invention is to provide a simple closing plug for the battery-holding receptacle which is conveniently constructed and arranged to facilitate switching the source of light on and off, as desired.

Another object of the invention is to provide simple and effective clamping means carried by and depending from said plastic body and readily and conveniently attachable to the gun barrel.

Other objects and advantages will become more readily apparent from the following description and the accompanying illustrative drawing.

In the drawings, wherein like numerals are

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employed to designate like parts throughout the views:

Figure 1 is a perspective view of a fragmentary portion of the gun barrel, showing the improved gun sight illuminator attachment in place;

Figure 2 is a view on an enlarged scale, showing the attachment with parts in section and elevation, the gun barrel being fragmentarily shown;

Figure 3 is a rear end elevation, that is, a view observing the attachment device from the inner end of the barrel;

Figure 4 is a sectional view on the line 4—4 of Figure 2, looking in the direction of the arrows.

Referring now to the drawings by distinguishing reference characters, the gun barrel is denoted at A, the stock at B and the bead-type gun sight, that is, the front sight, by the reference character C.

The illuminator attachment comprises a plastic unit, with the source of light included therein, which is generally denoted by the numeral 6, and clamping means for said unit, generally denoted by the numeral 7.

The unit 6 comprises what may be identified as a body portion 8 whose major part is fashioned into a holder for a flashlight. More specifically, this part is a cylindrical receptacle 9 which is open and internally screw-threaded at the right-hand end in Figure 2, and tapered and closed at the left-hand end as at 10. A dry cell battery 11 is fitted into the receptacle 9 and at the left-hand end, has contact with a suitable flashlight bulb 12, a coiled spring 13 being interposed between the bulb and battery to normally separate the two and break the circuit. A screw plug 14 is fitted into the opposite end of the receptacle and this abuts the battery and serves to slide same in or out for opening and closing the circuit, in an obvious manner. The plug is operated by a knurled finger-grip 15 having an indicator arrow 16, which is registrable with either of the "on" or "off" lugs 17 and 18 respectively. The light-beam is projected through a restricted diagonal passage 19 within the vicinity of the bulb and into a passageway or "tunnel" 20, defined by opposed parallel curvate walls 21 and 22. The opposed longitudinal edge portions 23 of said walls are spaced apart and straddle the sight C. The clamping means 7 is attached to said edge portions 23. Actually, the clamping means provides a pair of clamping jaws or grips 24, which fit around the barrel and which have return-bends 25 attached to said edges 23. The clamping members are also provided with ears 26, which are secured together by a thumb-bolt

27. This bolt has a knurled or milled marginal grip for convenient finger operation and is also provided with a screw-driver kerf 28. Thus, the unit 6 is detachably and adjustably mounted on the gun barrel by the clamping means 7. Referring again to the unit 6, it will be seen in Figure 1, that the exterior of the body portion is provided with ribs 28 and 29 which may be employed as anti-slipping grips. It follows that said grips expedite the step of handling the attachment, that is, applying and removing same.

Referring further to the clamping unit 7 it will be seen that the respective jaws or grips 24 are substantially semi-circular in curvature and embrace diametrically opposite sides of the gun barrel A. The bolted ears 26 are located on the bottom of the barrel and the out-turned bends or keys 25 are thus located on the top of the barrel and as a matter of fact on opposite sides of and parallel to the sight C. By fitting the bends 25 into the longitudinal grooves 23a in the stated edge portions 23 of said walls, the grooves function as key-ways and the bends 25 function as keys fitting into said key-ways. Obviously, with this coaction of elements the entire unit 6 is both slidably and detachably mounted on and carried by the clamp unit 7. It is also evident that when the bolt 27 is tightened in the ears 26, the ears are drawn together and the keys 25 ride outwardly and away from each other and are frictionally bound in the key-ways. Hence, the grips 24 rock slightly on the barrel and produce a result in which the keys actually function as detents. Conversely, when the bolt 27 is loosened the retentive forces of the detents serve to loosen same and to allow the unit 6 to be shifted on the unit 7 freely or to be entirely detached from said unit 7. It follows, therefore, that novelty is predicated upon the provision of a novel clamping unit 7 on a gun barrel where the unit serves as a mount on which the illuminating unit is shiftably and detachably mounted and wherein the keying action between the keys and key-ways is unique in that the keys have the function of friction retaining detents.

A careful consideration of the foregoing description in conjunction with the invention as illustrated in the drawings will enable the reader to obtain a clear understanding and impression of the alleged features of merit and novelty sufficient to clarify the construction of the invention as hereinafter claimed.

Minor changes in shape, size, materials and rearrangement of parts may be resorted to in actual practice so long as no departure is made from the invention as claimed.

Having described the invention what is claimed as new is:

1. In a structure of the class shown and described, in combination, a gun barrel having a front sight, clamp means mounted on said barrel adjacent to said sight and including a pair of grips provided on their upper ends with hook-like terminals providing keys, and an illuminator unit comprising a body having spaced walls defining an open ended tunnel-like passage enclosing said sight, said walls having grooved edges spaced apart, said grooves forming keyways, said keys fitting into the latter and said unit being bodily shiftable in relation to said keys and sight, a flashlight carried by said unit and embodying a flashlight bulb in and abutting the closed end portion of said receiver, a dry cell in said receiver, a coiled spring interposed between and spacing said dry cell and bulb, the open end

portion of said receiver being screw-threaded, and a screw-plug screwed into said receiver and contacting said dry cell, said screw-plug serving to compress said spring and to press the dry cell into contact with said bulb.

2. In an illuminable gun sight of the class shown and described, in combination, a gun barrel having a front sight, a clamping unit detachably mounted on said gun barrel within coacting vicinity of said front sight embodying a pair of duplicate opposed grips, said grips having curvate portions conforming to the coacting curvatures of the gun barrel, said grips being adjustably and detachably bolted together on the underside of the barrel and having their upper ends projecting above the barrel and terminating in laterally outturned keys, and a separate illuminator unit including a source of illumination and embodying opposed wall portions defining an open-ended tunnel-like passage in communication with the source of illumination and encompassing said sight, the edge portions of said wall portions having grooves and said grooves constituting keyways, said keys fitting into said keyways, whereby said illuminator unit is both detachably and shiftably mounted on said gun barrel.

3. Attachment means for illuminating a front sight on a gun barrel comprising a clamping attachment embodying a pair of duplicate grips, of general semi-circular form bent intermediate their ends to embrace and conform to diametrically opposite side portions of a cylindrical gun barrel, the grips at their lower ends being fashioned into ears, the grips on their upper ends being provided with outturned bends constituting keys on the one hand and retaining detents on the other hand, and a bolt for adjustably interconnecting said ears, said bolt, when tightened, serving to spread the detents apart and, when loosened, permitting the detents to swing toward each other, and a one-piece molded plastic illuminator unit including a body portion substantially cylindrical in cross section defining a receiver, the receiver being closed at the forward end and internally screw-threaded and open at its rearward end, the forward end portion being provided with an aperture for passage of a light beam, said unit further including opposed curved side walls defining an open-ended tunnel-like passage, the free edges of said side walls being in opposed parallelism and grooved to provide keyways for removable reception of said keys.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
333,232	Kopf	Dec. 29, 1885
586,295	Terry	July 13, 1897
807,993	Bassell et al.	Dec. 19, 1905
873,591	Penfield	Dec. 10, 1907
880,294	Getchell	Feb. 25, 1908
1,932,473	Morgan et al.	Oct. 21, 1933
2,158,915	Searcy	May 16, 1939
2,249,690	Gelardin	July 15, 1941
2,307,745	Lutz et al.	Jan. 12, 1943
2,442,893	Henderson	June 8, 1948

FOREIGN PATENTS

Number	Country	Date
190,745	Switzerland	May 15, 1937