Jan. 22, 1957 R. A. CRUZ 2,778,931

FOLDING FLASHLIGHT HOLDER

Filed April 3, 1953

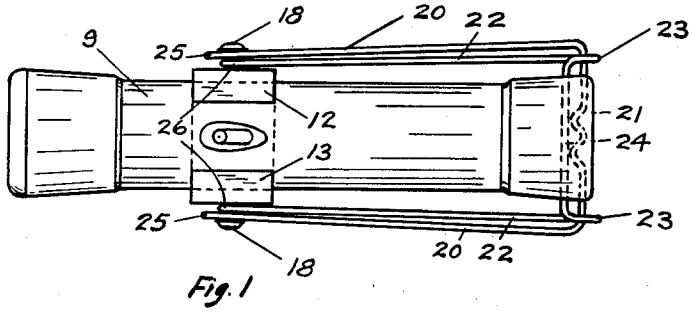


Fig. 1

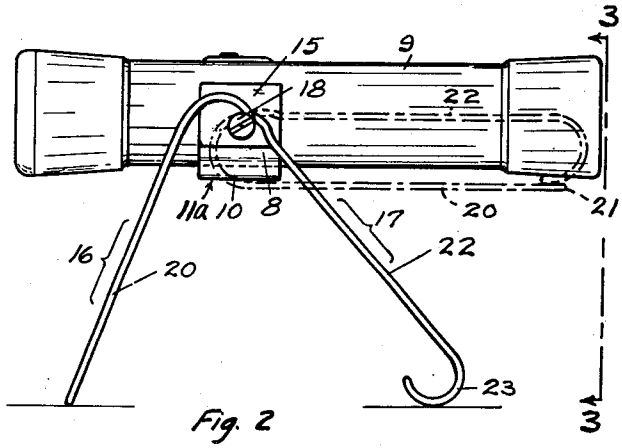


Fig. 2

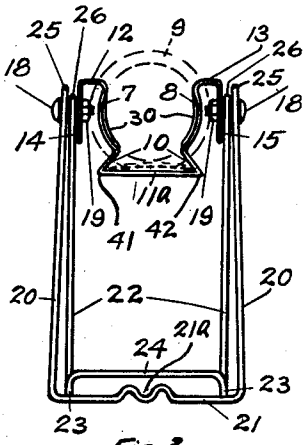


Fig. 3

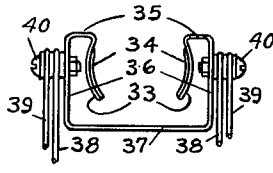


Fig. 7

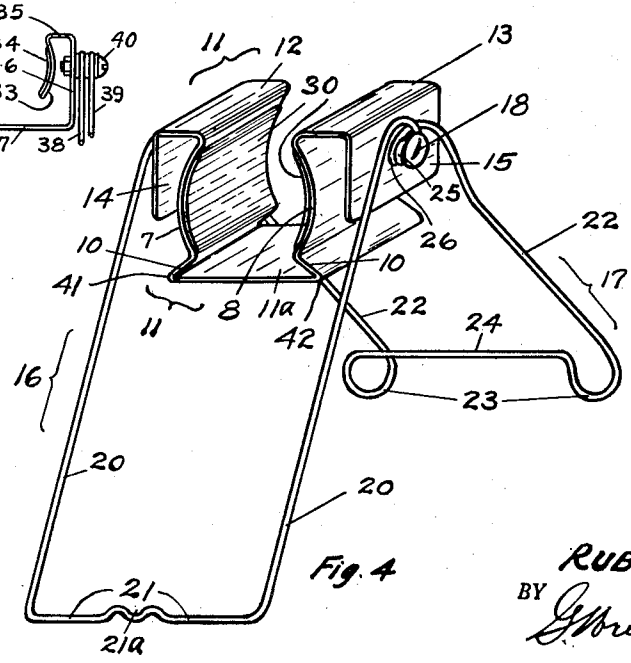


Fig. 4

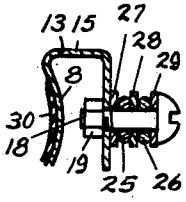


Fig. 5



Fig. 6

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United States Patent Office 2,778,931 Patented Jan. 22, 1957

2,778,931

FOLDING FLASHLIGHT HOLDER

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Application April 3, 1953, Serial No. 346,748

7 Claims. (Cl. 240—52.5)

My invention relates to a folding flashlight holder. More particularly my invention relates to a folding flashlight holder of a structure adapted to support a flashlight in various different positions, as well as readily demountable, stable, compact and adaptable or applicable to various types of flashlights.

Objections, among others, obtaining to holders that are on the market are as follows: A holder prominently on the market is mounted directly on the flashlight so that it cannot be used upon other flashlights. Being fixedly mounted on the flashlight, it remedies the problem of having the mounting means secured in position for holding the light but it does lack adaptability for application to others.

Another objection to flashlight holders in use is that they do not mount the flashlight with required stability. Other flashlights which do have a mounting means which are demountable are objectionable for the reason that the securing of the flashlight to the mounting means is very involved and complex.

A primary object of my invention is to overcome these various objections. It is a primary object of my invention to provide a flashlight holder which may be mounted and supported in a manner permitting the free use of both hands for the work being done. In using a flashlight, one hand is ordinarily required to hold and manipulate the flashlight to bring the light to bear in different directions. In many instances when dependence is had on a flashlight for illumination for the work being done, it is a serious handicap to have to use one hand to hold the flashlight and it is an object of my invention to overcome this by providing a flashlight which will permit the advantageous use of both hands for the work being done without one hand being required to hold the flashlight and to manipulate the flashlight to different positions.

It is a primary object of my invention to provide a flashlight holder which will receive and adjustably support an ordinary standard flashlight in such a manner that the light therefrom may be directed and held where desired and thus efficiently utiiized.

Another object of this invention is to provide a flashlight holder which may be used either as a stand or a hanging support for a flashlight and which will adjustably support the flashlight at substantially any desired angle either when suspended or when used as a stand.

Another object of this invention is to provide a flashlight holder which will fold compactly alongside of the flashlight to which it is applied so that it does not make the flashlight bulky and thus objectionable for carrying as in the pocket. Also it is not bulky for storage purposes and the flashlight with its holding means is not rendered cumbersome when carried in the hand in the usual manner.

Other objects of the invention are to provide a flashlight holder of simple and efficient construction which is not expensive to manufacture, which is applicable to flashlights of different size and shape on the market or presently in use which will firmly and resiliently grip a flashlight in such a manner that the flashlight can be easily and readily inserted therein or removed therefrom and one which will render a flashlight more useful and which will make possible better and more satisfactory utilization of the light therefrom.

The above mentioned general objects of my invention, together with others inherent in the same, are attained by the mechanism illustrated in the following drawings, the same being preferred exemplary forms of my invention:

Figure 1 is a top plan view of a flashlight holder embodying my invention showing a flashlight in the holder and showing the holder in a folded position.

Fig. 2 is a side elevation of said flashlight holder with a flashlight therein, showing, by dot and dash lines, the holder in the folded position in which it is shown in Fig. 1 and showing by full lines the holder in an open position as it may appear when used as a stand to support the flashlight.

Fig. 3 is an end view looking in the direction of broken line 3—3 of Fig. 2, the flashlight being diagrammatically indicated by broken lines.

Fig. 4 is a perspective view of the flashlight holder with the flashlight removed.

Fig. 5 is a detached fragmentary sectional view, with parts in elevation and on a larger scale than the other figures, showing pivot means embodied in the invention.

Fig. 6 is a fragmentary sectional view, with parts in elevation showing how a tube of pliable material may be provided on the folding support means to protect and insulate the same, particularly when working about high voltage lines; and

Fig. 7 is a view in end elevation, with parts broken away, of a flashlight holder of modified form made in accordance with this invention.

The flashlight receiving bracket or portion of the flashlight holder shown in Figs. 1 to 5 inclusive comprises a unitary structure or plate and therefore one which may be stamped from a single piece of metal comprising a central flat portion **11***a* with two resilient spaced apart opposed flashlight gripping members **7** and **8** which are of cylindrical concave form on their inner sides and formed from portions of said plate laterally of said flat portion **11***a*, said concave gripping members of said form to receive therebetween and grip and hold a flashlight **9** of generally cyindrical external shape. Preferably linings **30** of non-abrasive material which has a high coefficient of friction and which may be of rubber composition, are cemented, vulcanized or otherwise fixedly secured to the inner faces of the flashlight gripping members **7** and **8**. The two flashlight gripping members **7** and **8** have the two lowermost edges thereof, as respects the showing in Figs. 2, 3 and 4 formed or shaped in outwardly flared reversely bent integral resilient portions **10** with a plane flat base member **11***a*. The width of the base member **11***a* is preferably equal to or greater than the distance between the flashlight gripping members **7** and **8** to provide good stability when the base member **11***a* is used as a support for the flashlight when resting on a flat surface. The use of the sharply bent outwardly flared resilient portions **10** not only makes possible the provision of a wide base as just set forth, but it also provides a firm resiliency and flexibility as respects the members **7** and **8** for secure gripping with light weight structure and further makes possible a wider range of adjustment to flashlights of various sizes. The sharp angles **41** and **42** of parts **10** provide firmness in the springing apart of these members for the reception of the relatively heavy flashlight **9**. The member **11***a*, disposed as it is between the two opposed members **7** and **8** which are outwardly pressed by the flashlight **9**, is adapted to bend into a concave form as shown in dotted line in Fig. 3 when the flashlight is inserted. The edge portions of the flash-

light clamping members 7 and 8 which are shown uppermost in the drawings are bent outwardly to provide shelf-like spacer portions 12 and 13, respectively positioned substantially at right angles to members 7 and 8. The bends between the gripping portions 7 and 8 and the respective spacer portions 12 and 13 are preferably not sharp bends but are gradually rounded curves which facilitate the insertion of a flashlight 9 sidewise by pressing downwardly the flashlight into the space between the gripping members 7 and 8. Also these smoothly rounded bends and the soft linings 30 avoid marring of the flashlight. The spacer portions 12 and 13 are bent downwardly to provide resilient mounting plates 14 and 15 respectively, which are spaced outwardly from and are approximately parallel to and are positioned alongside of the respective flashlight gripping members 7 and 8. The parts 12, 14 and 13, 15 form spring-like mounting members of inverted L shape connected with the upper edges of the flashlight gripping members 7 and 8.

Two supporting members 16 and 17 are pivotally and frictionally mounted upon the mounting plates 14 and 15 as by pivot bolts 18 having nuts 19 thereon. By having the axis of pivot bolts 18 above the longitudinal axis of the flashlight 9 (i. e. having the parts 12, 14 and 13, 15 "connected with the upper edges of the flashlight gripping members 7 and 8"), even though only slightly above, functions to provide a firm resilient hold on the flashlight 9.

The supporting member 16 comprises two side bars 20 connected by a transverse outer end bar 21, which preferably has a bend 21a to facilitate balanced hanging of the flashlight on the nail or like means of support. The other supporting member 17 comprises two side bars 22, bent to form hook shaped outer or lower end portions 23, and connected by an integral iron bar 24. Both support members are of approximately U shape and the base portions thereof are adapted to rest firmly on flat surfaces.

The side bars 20 of the supporting member 16 are spaced farther apart than are the side bars 22 of the supporting member 17 to facilitate compact telescopic folding. The bolts 18 pass through eye members 25 and 26 which are formed respectively in the upper end portions of the side bars 20 and 22. Preferably washers 27, 28 and 29, see Fig. 5, of brass or any suitable material having a high coefficient of friction, are provided respectively between each eye member 25 and the adjacent mounting plate 15 or 14 and between each two eye members 25 and 26, and between each eye member 26 and the head of the screw 18 on which it is mounted. Practically any desired amount of friction can be placed on the eye members 25 and 26 by adjusting the nuts 19 on the pivot bolts 18. Ordinarily these nuts 19 are tightened sufficiently so that the supports 16 and 17 will stay in any position in which they are placed until they are moved to a different position by the application of force thereto. Thus, the flashlight 9 will be frictionally held and will remain in any position into which it is adjusted until it is manually moved so that the beam of light can be directed as desired.

If desired, any part or all of the supporting members 16 and 17 may have a coating 31 (Fig. 6) of rubber or like surfacing material provided thereon.

Fig. 7 shows a flashlight receiving bracket of modified form comprising opposed concave flashlight gripping members 33 having lining pads 34 of rubber or like material. The gripping members 33 are integral with outwardly extending top or spacer parts 35 and downwardly extending mounting brackets or sides 36 and a transverse bottom part 37. Supporting members 38 and 39, similar to the previously described supporting members 16 and 17 respectively, are pivotally secured by bolts 40 to the mounting brackets 36 in a manner previously described in connection with bolts 18, see Fig. 5. The flashlight receiving member shown in Fig. 7 is somewhat simpler and less expensive to construct than is the flashlight receiving member shown in Figs. 1 to 5 but it is less resilient and will not readily accommodate as wide a range of size variations as will the device shown in Figs. 1 to 5.

When the supporting members 16 and 17 are not being used to support the flashlight they may be folded into and out of the way position parallel to the flashlight, as shown by full lines in Fig. 1 and by dot and dash lines in Fig. 2. When the members 16 and 17 are thus folded, the base member 11 and side arms 20 and end cross bar 21 may rest on a horizontal or an inclined surface and cooperate to firmly support the flashlight without danger of the same rolling.

The supporting members 16 and 17 can be adjusted to rest on horizontal or inclined surfaces. The flashlight 9 can be adjusted longitudinally in the resilient bracket by which it is held and the bracket can be adjusted on bolts 18 to any desired angle. The hook portions 23 of supporting member 17 may be engaged with twigs or branches or ropes or lines to suspend the holder and flashlight therein and either supporting member may be engaged with nails or hooks or pegs or the like in a wall or upright support. Also the supporting member 16 may be inserted in a breast or other pocket and the flashlight thus carried outside of the pocket adjacent to the body, or either of the supporting members 16 or 22 may be hung from a belt or other part of the clothing. Bends 41 and 42 provide for firm and ready flexibility of gripping members 7 and 8, as has been indicated.

Obviously, changes may be made in the form, dimensions and arrangement of parts of this invention without departing from the principle thereof, the above setting forth only preferred forms and embodiments.

I claim:

1. A flashlight holder comprising two attached together spaced apart resilient flashlight gripping members each having an outwardly, laterally spaced mounting plate; and two supporting members each having two spaced apart bearing parts pivotally and frictionally connected with the respective said spaced mounting plates and each having a base portion of substantial width.

2. A flashlight holder comprising two spaced apart opposed internally concave flashlight gripping members; a flat base extending between and positioned substantially perpendicular to said flashlight gripping members; reversely bent resilient integral edge members connecting the lateral edge portions of said base with adjacent edge portions of said flashlight gripping members; integrally formed mounting members of inverted L shape connected with the edges of said flashlight gripping members remote from said flat base providing mounting plates spaced outwardly from and approximately parallel to and alongside of said flashlight gripping members; and two supporting members each having two spaced apart bearing parts pivotally and frictionally connected with said two mounting plates and each having a base portion of substantial width.

3. A flashlight holder comprising two spaced apart opposed internally concave flashlight gripping members; a flat base extending between and positioned substantially perpendicular to said flashlight gripping members; reversely bent resilient integral edge members connecting the lateral edge portions of said base with adjacent edge portions of said flashlight gripping members; integrally formed mounting members of inverted L shape connected with the edges of said flashlight gripping members remote from said flat base providing mounting plates spaced outwardly from and approximately parallel to and alongside of said flashlight gripping members; and two substantially U-shaped bent wire supporting members pivotally and frictionally connected with said two mounting plates.

4. A flashlight holder comprising two spaced apart opposed internally concave flashlight gripping members; a flat base extending between and positioned substantially perpendicular to said flashlight gripping members; reversely bent resilient integral edge members connecting the lateral edge portions of said base with adjacent edge

portions of said flashlight gripping members; integrally formed mounting members of inverted L shape connected with the edges of said flashlight gripping members remote from said flat base providing mounting plates spaced outwardly from and approximately parallel to and alongside of said flashlight gripping members; two substantially U shaped supporting members having end portions thereof pivotally and frictionally connected with said mounting plates; and a reversely bent hang-up hook provided in the normally closed end portion of one of said supporting members.

5. A flashlight holder comprising two spaced apart opposed internally concave flashlight gripping members; a flat base extending between and positioned substantially perpendicular to said flashlight gripping members; reversely bent resilient integral edge members connecting the lateral edge portions of said base with adjacent edge portions of said flashlight gripping members; integrally formed mounting members of inverted L shape connected with the edges of said flashlight gripping members remote from said flat base providing mounting plates spaced outwardly from and approximately parallel to and alongside of said flashlight gripping members; two aligned pivot members adjustably connected with the respective mounting plates; and two substantially U-shaped supports of approximately equal length each having an end part thereof pivotally and frictionally connected with one of said pivot members, whereby when a flashlight is held by said flashlight gripping members said supports may be folded alongside of the flashlight or may be extended angularly from the flashlight to support the flashlight.

6. A flashlight holder comprising two spaced apart opposed internally concave resilient flashlight gripping members; a resilient base plate extending between and positioned substantially at right angles to and integrally connected with said flashlight gripping members, said base plate being radially spaced with respect to an imaginary cylinder of revolution defined by said concave gripping

members, said resilient base plate being free to move upwardly into convex form under outward pressure applied to the gripping members and cooperating with said gripping members to render the latter firm yet easily flexed to readily accommodate for and firmly retain flashlights of different cross-sectional diameters; and two supporting members each having two spaced apart bearing parts pivotally and frictionally connected with the respective flashlight gripping members and each having a base of substantial width.

7. A flashlight holder comprising two attached together spaced apart resilient flashlight gripping members, said resilient members being integrally connected by a resilient base portion extending between and positioned substantially at right angles to said gripping members; L-shaped mounting members integrally connected to the edges of said flashlight gripping members remote from said resilient base and providing mounting plates spaced outwardly from said gripping members; and two bent wire supporting members each having two spaced apart bent eyelet members pivotally and frictionally attached to said mounting plates and having washer members in pressure engagement with and between said eyelet members in providing a consistent degree of frictional engagement between said supporting members irrespective of the relative angular position and extent of use thereof, said resilient base, gripping members, and mounting plates cooperating in providing increased tension and increased frictional engagement between said supporting members and said mounting plates when said flashlight gripping members are in gripping, relatively separated engagement with a flashlight.

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