Aug. 25, 1936. D. A. VAUGHAN 2,052,120

SUPPORT FOR FLASHLIGHTS OR THE LIKE

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Fig. 1

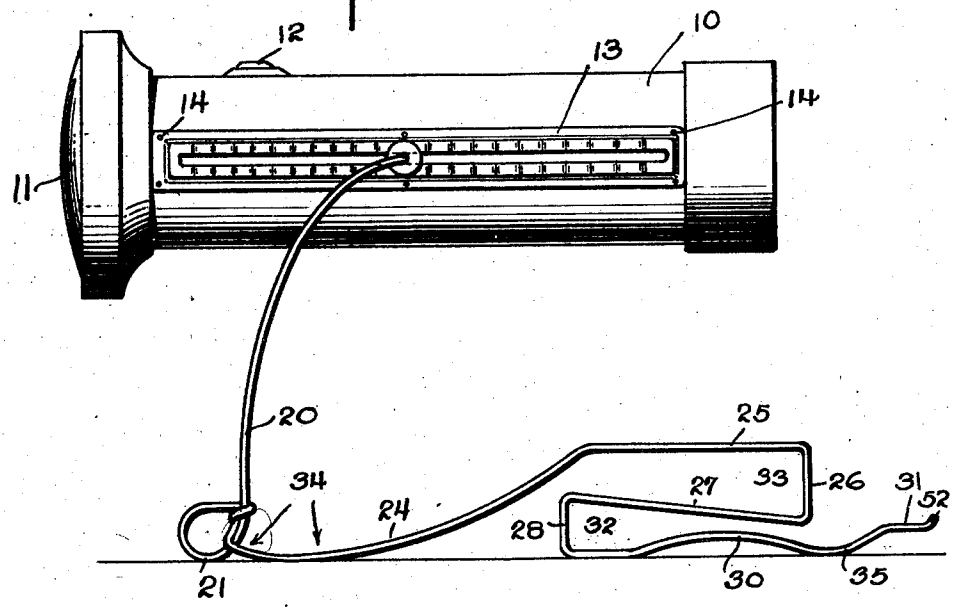


Fig. 2

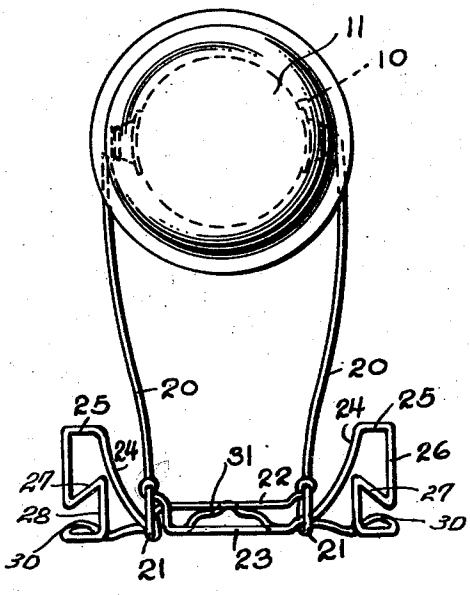
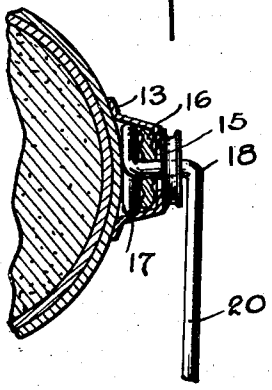


Fig. 3



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Fig. 5

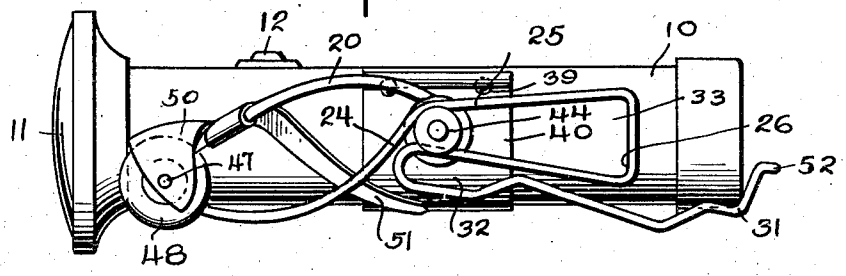


Fig. 4

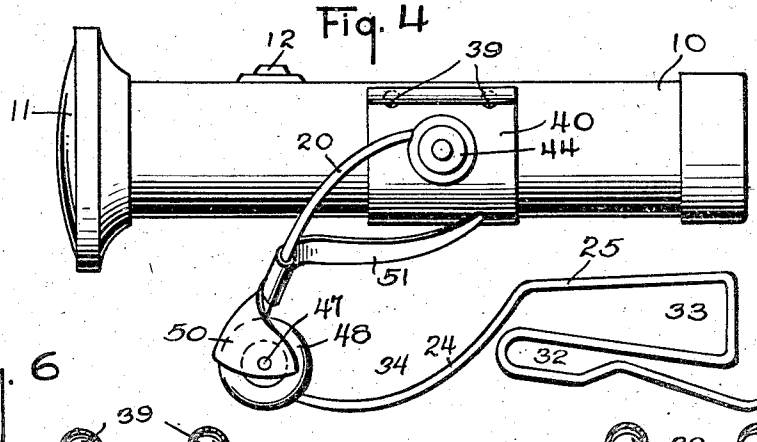


Fig. 6

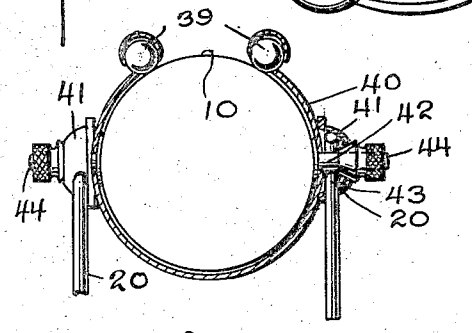


Fig. 7

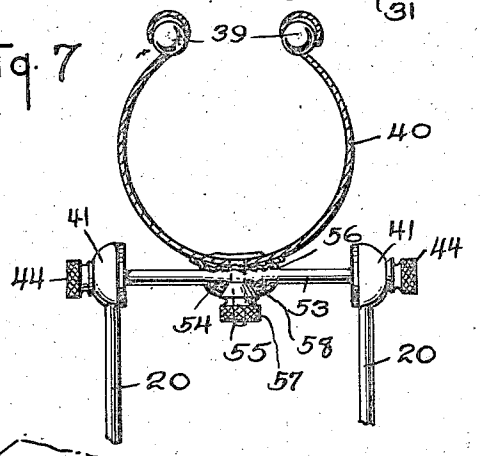
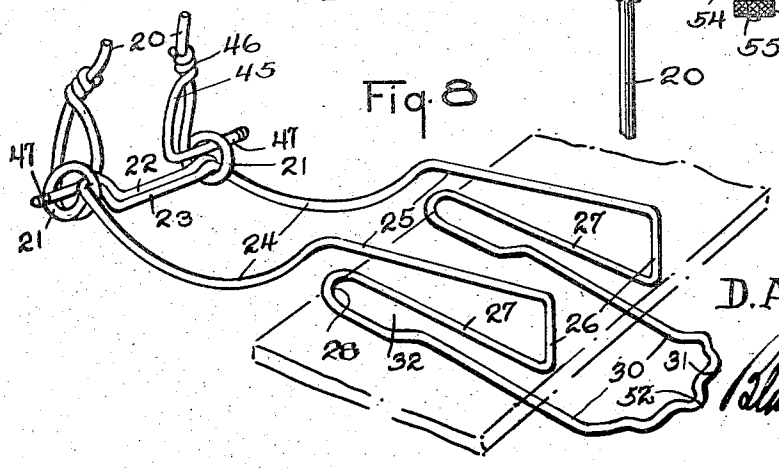


Fig. 8



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SUPPORT FOR FLASHLIGHTS OR THE LIKE

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Application December 2, 1935, Serial No. 52,584

9 Claims. (Cl. 248—126)

This invention relates mainly to supports for flashlights and more particularly to a support adapted to be associated with any of the well known types of cylindrical flashlights whereby the same may be supported conveniently from a longitudinal, vertical or diagonal plane surface, or a solid cylindrical, tubular, or plate-like article, or conveniently carried from place to place and, while so mounted or carried, adjusted to any desired angle.

It is accordingly one of the objects of the present invention to provide a support of the above general character which may be inexpensively manufactured and easily assembled.

A further object of the invention is to provide a strong and durable support of the above character adapted to receive any of the various standard types of flashlights without in any way necessitating material modification or alteration of the flashlight or the use of any particular tools.

A further object is to provide a support of the above character preferably made of resilient wire or the like in which every curve or loop has a definite function whereby the attaching portion may be expanded to more readily accommodate itself to various cooperatve positions which it may occupy in use, especially with respect to the support upon which it is mounted.

A further object of the present invention is to provide a support of the last above mentioned character, which may be easily and quickly folded into compact relation with respect to the flashlight whereby both the support and the flashlight may be conveniently placed in one's pocket or otherwise carried about.

A further object is to provide a device of the last above mentioned character to which small wheels or casters may be applied, either permanently or temporarily, to permit the flashlight with its holder to be employed as a useful and amusing toy.

Other objects will be in part obvious from the annexed drawing and in part hereinafter indicated in connection therewith by the following analysis of the invention.

This invention accordingly consists in the features of construction, combination of parts and in the unique relation of the members and in the relative proportioning and disposition thereof, all as more completely outlined herein.

To enable others skilled in the art to fully comprehend the underlying features of this invention, that they may embody the same by the numerous modifications in structure and relation contemplated by the invention, drawings depicting several forms of the invention have been annexed as part of this disclosure, and in such drawings like characters of reference denote corresponding parts throughout all of the views, in which—

Fig. 1 is a side elevational view of an ordinary cylindrical flashlight mounted in one of various possible forms of support;

Fig. 2 is a front end view of the parts shown in Fig. 1;

Fig. 3 is a detailed sectional view showing one form of pivotal connection between the flashlight and the holder;

Fig. 4 is a side elevational view similar to Fig. 1 showing a modification of the support;

Fig. 5 is a side elevational view of the construction shown in Fig. 4 when in folded position;

Fig. 6 is a transverse partial sectional view showing a supporting clip with the flashlight removed;

Fig. 7 is a similar view showing a modified form or universal pivotal connection between the flashlight and its supporting clip;

Fig. 8 is a detailed perspective view showing one way of making the wire supporting frame.

Referring now to the drawings in detail and more particularly to Figs. 1 to 4 inclusive wherein is illustrated one embodiment of my invention. 10 indicates the tubular casing of a flashlight of any standard make. Such casing, as is well known, is usually six or eight inches in length, and is adapted to contain batteries and provided with a lens 11 at one end and the usual operating switch 12 at some convenient point on its cylindrical surface.

In this particular form there is preferably attached to the opposite sides of the casing 10 two elongated slotted members 13 which are shown in section more clearly in Fig. 3. These elongated slotted members may be secured to opposite sides of the cylindrical casing in any desired manner as by means of rivets 14, for example. The inner surface 15 of each slotted member is corrugated and adapted to be engaged by a crimped washer 16 which also engages one or more spiral spring turns 17 of the inwardly bent extremity 18 of the upstanding wire legs 20 of the supporting frame. It is to be understood that the above described construction (Fig. 3) is the same on both sides of the flashlight as shown in Fig. 2, the arrangement being such as to permit tilting of the flashlight about the axis of the wire extremities 18.

The lower ends of each of the upright legs 20 are formed into a loop or loops 21. From one

set of loops 21, for example, the right hand loop 21 (Fig. 2), the wire is bent to form a cross piece 22, which extends relatively transversely and in the direction of the left hand loop through which it projects, and from whence it extends rearwardly. Similarly the wire extending from the left hand loops 21 is bent to form a cross piece 23 extending in the direction of the right hand loops 21, extends through the same, and thence extends rearwardly. The arrangement is such that cross pieces 22, 23 of the support serve as a tie between the legs 20 and thus functions to stabilize the support as a whole. The spaced rearwardly extending portions of the wire are so formed as to constitute a generally U-shaped base frame, the side wires of which are both preferably flared upwardly as at 24 and merge into substantially horizontal portions 25, from whence the side wires extend downwardly as at 26, thence horizontally and forwardly as at 27, again downwardly as at 28, and rearwardly and substantially horizontally as at 30, to form a tail 31.

It will be understood from the foregoing that the support of the embodiment being described is fabricated from a single piece of resilient wire stock. To outline briefly the various steps of manufacture, one leg such as the right hand leg 20, is first formed, then the right hand loops 21, and the cross piece 22. From the cross piece the wire is bent to extend rearwardly to form the relatively left leg of the U-shaped base frame, the right leg of which is bent to extend through the right hand loops 21 to form cross piece 23, is thereupon looped to form the left hand loops 21 and is thereupon bent upwardly to form the left leg 20. The advantages of such an arrangement as well as its economy in manufacture will readily be evident.

It will be seen, by reference to Fig. 1, that the various turns and bends, indicated by the numerals 24–31 inclusive, provide three sets of aligned jaw spaces. The small or narrow space 32 is of a convenient size to fit over a thin glass shelf or a piece of sheet metal such as an automobile fender, for example, when it is desired to use the flashlight while changing a tire at night. The next larger space 33 will accommodate a thicker piece of material, such as a wooden shelf, and inasmuch as the flashlight may be turned through 180° and tilted to a desired angle the support may be applied to such shelf and the flashlight turned to any angle, as desired. The largest space, that is, between the legs 20 and base frame portions 24, indicated by the numeral 34, is of such size as to engage a person's arm, for example, or to be hung over the limb of a tree or pipe, or in fact associated with any relatively larger member from which it is desired to support the flashlight in fixed position.

Of course it is to be understood that the flashlight with its support, as shown in Fig. 1, is in that position adapted to be mounted upon a table top, for example, and inasmuch as there is a relatively large base, that is, between the numerals 21 and 35, Fig. 1, there is little danger of the flashlight being upset accidentally or tipped over due to the jarring of the machine upon which it may be resting, for example.

In Fig. 4 substantially the same major parts are employed. It may be desirable to omit the slide member 13 indicated in Fig. 1 and to substitute therefor a resilient sheet metal clip 40 of substantially U-shaped cross section adapted to snap over and embrace the cylindrical body of the flashlight 10. Such clip, as it may be termed, is provided preferably with a curled over top with holes on the inner side through which project the balls 39 to facilitate the cooperation of the clip and flashlight and to provide for the sliding along of clip 40 on flashlight barrel. Trunnions are provided at each side of the clip, as shown more clearly in Fig. 6, and comprise a small cap member 41 surrounding a pin 42 around which pin the upper end of the upright leg 20 is adapted to be wound after passing through a hole or slot in the lower side of the cap 41. A washer 43 bears against the wound and slightly twisted or looped end of the supporting leg 20, the loop or twist giving side thrusts both against washers and side of the U-metal clip 40. A V-shaped set screw 44 on stud 42 is provided to aid and secure the necessary frictional engagement to support the lamp in its desired adjusted angle.

The lower parts of the legs 20 are bent into substantially the form above described and disclosed in Figs. 1 and 2. These legs may be doubled and there may be added, if desired, a further element, namely the wire 45, the upper end of which is wound a plurality of times about the upright legs 20, as indicated at 46, while the lower ends are bent laterally at right angles to form studs or axles 47 upon which small casters or rubber wheels 48 (Figs. 4 and 5) may be snapped or otherwise secured. These rubber wheels also act as buffers on curved end of flashlight. This merely illustrates one of the various possible ways in which these rollers 48 may be mounted upon the frame. This showing is perhaps preferable, however, due to its simplicity and cheapness combined, of course, with the durability of the finished article.

A guard 50 is provided not only for the purpose of ornamentation but also to act as a buffer. The purpose of wheel 48 and guard 50 is primarily to convert the article into a suitable toy which may be moved around a floor or table as desired. The guard 50, which may be of rubber composition of sufficient stiffness to retain its shape, is preferably wrapped around the supporting wire 20 and then extends rearwardly as indicated at 51 to give an ornamental streamline effect. Being of flexible material the usefulness of the supporting frame is in no way impaired.

In Fig. 5 the mechanism is shown in folded position, that is, the connection between the upright legs 20 and base frame 24 is such as to permit the two to be moved relatively towards each other and then the arm 24—25 may snap over the supporting set screw 44 to hold the parts in the position indicated. The tail 31 of the base is preferably so shaped as to embrace the rear cap of the flashlight casing 10. If desired, however, this tail 31 preferably extends sufficiently far to form an axis for a vacuum cup or an eye 52 to permit the device to be suspended from a hook or nail.

In Fig. 7 there is shown a still further modification. Here the upright legs 20 are the same as those above described and terminate in caps 41 similar to those shown in Fig. 6, but the trunnions are joined by a bar 53 provided with a hole in the center to receive a rivet or stud 55 extending through friction washers 56 between the bar 53 and flashlight case. This stud which passes through cap 54 is somewhat similar in internal construction to that shown at the right in Fig. 6, and a set screw 57 is provided on the under side.

The bar 53 is flattened in the center and is apertured to rotatably receive the stud 55 on which

the crimp washer nut 57 is screwed. A second crimp washer 58 is provided on the under sides of bar 53. Thus the clip 40 and flashlight carried thereby may be bodily tilted about the axis of bar 53, and also swiveled about the axis of the stud 55, to provide for a wide range of angular movement.

As previously stated, the above illustrates and describes only a few of the various possible modifications, but it is believed that it is sufficient to illustrate the main features of the present invention and the decided points of improvement over devices of this broad general character heretofore employed. The method of use and operation will be clear to those having use for a device of this character. Any of the forms illustrated, except possibly that shown in Fig. 7, may be conveniently folded and placed in one's pocket when in the position as shown in Fig. 5. The device may be used to provide amusement when in the position shown in Fig. 4, with the flashlight turned to any and all desired degrees. The clips shown in Figs. 6 and 7 may be preferable to the forms of attachment shown in Figs. 1 and 3, but this is purely a matter of choice on the part of the manufacturer.

The device has a wide range of use and applicability, and the provision of various engaging spaces indicated by the numerals 32, 33, and 34 in Fig. 1 shows its adaptability to various types of supports which will permit the use of the device in almost any location and at any angle.

It is thus seen that the present invention provides a simple and practical mechanism of strong and durable construction and one adapted to accomplish among others all of the objects and advantages herein set forth.

Without further analysis the foregoing will so fully reveal the gist of this invention that others can, by applying current knowledge, readily adapt it for various applications without omitting certain features that, from the standpoint of the prior art, fairly constitute essential characteristics of the generic or specific aspects of the invention, and therefore such adaptations should and are intended to be comprehended within the meaning and range of equivalency of the following claims.

I claim:

1. A support of the character described including spaced, substantially upright legs, the upper ends thereof being provided with means for securing an article to be supported therebetween, and a base frame integral with said legs and extending relatively rearwardly from the lower ends thereof, said base frame having portions in horizontal alignment whereby said frame may rest on a horizontal surface, and other portions providing at least one resilient jaw adapted to grip a shelf or the like.

2. A support of the character described including spaced, substantially upright legs, the upper ends thereof being provided with means for securing an article to be supported therebetween, the legs at their lower ends having loops, and a base frame integral with said loops and extending relatively rearwardly therefrom, said base frame having portions in horizontal alignment whereby said frame may rest on a horizontal surface and other portions providing at least one resilient jaw adapted to grip a shelf or the like.

3. A support of the character described including spaced, substantially upright legs, the upper ends thereof being provided with means for securing an article to be supported therebetween, the legs at their lower ends having loops, cross pieces extending from each of said loops through the other of said loops, and a base frame integral with said cross pieces and extending relatively rearwardly therefrom, said base frame having portions in horizontal alignment whereby said frame may rest on a horizontal surface and other portions providing at least one resilient jaw adapted to grip a shelf or the like.

4. A support formed from a single piece of wire including spaced, substantially upright legs, the upper ends of said legs being provided with means for securing an article to be supported therebetween, the lower ends of said legs being constituted by a loop, and a generally U-shaped base frame extending substantially horizontally from said loops and having portions in alignment whereby the frame may be supported on an horizontal surface, the legs of said U-shaped frame having bends therein providing aligned jaws whereby the frame may be clipped on a shelf or the like.

5. A support formed from a single piece of wire including spaced, substantially upright legs, the upper ends of said legs being provided with means for pivotally securing an article to be supported therebetween, said means comprising a clip adapted to support a flashlight, trunnions for said clip whereby it may turn in a normal vertical plane, the upper ends of said legs being coiled around said trunnions, cross pieces extending from the looped lower end of each leg in the direction of and to the other leg, and a generally U-shaped base frame extending substantially horizontally from said cross pieces, and having portions in alignment whereby the frame may be supported on a horizontal surface.

6. A wire support for flashlights and the like, including substantially upright legs, a clip extending therebetween adapted to engage the casing of the flashlight, means providing a pivotal connection between the clip and the upper ends of said legs, said means comprising trunnions for said clip whereby it may turn in a normal vertical plane, the upper ends of said legs being coiled around said trunnions to secure the necessary frictional engagement to support the light, and a base frame of general U-shaped form, said base frame being integral with said legs and having bends therein providing aligned jaws.

7. A wire support for flashlights and the like including substantially upright wire legs, a bar extending between the upper ends of said legs about which the wire coils, said bar being adjustably mounted for rotation being frictionally held in adjusted position by the coils of said wire legs, a clip adapted to engage the flashlight casing, a swivel connection between said clip and said bar, and a base frame of generally U-shaped form, said base frame being integral with said legs and extending relatively rearwardly and horizontally therefrom.

8. A wire support for flashlights and the like comprising, in combination, substantially upright legs, the upper ends thereof being provided with means for securing the flashlight casing therebetween, the lower ends of said legs being looped, a base frame of generally U-shaped form integral with said legs and loops and extending relatively rearwardly and horizontally therefrom having bends therein providing aligned jaws, means operatively associated with said loops and providing axle portions extending transversely of said frame, and wheels mounted on said axle portions.

9. A wire support for flashlights and the like comprising, in combination, substantially upright legs, the upper ends thereof being provided with means for securing the flashlight casing therebetween, the lower ends of said legs being looped, a base frame of generally U-shaped form integral with said legs and loops and extending relatively rearwardly and horizontally therefrom to form shelf engaging means, axles associated with said legs, rollers carried by said axle at the sides of the frame, and buffers associated with the legs and rollers.

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