Aug. 14, 1928. 1,680,723

L. BLOOM ET AL

PORTABLE GARAGE LIGHT

Filed April 13, 1927

Fig. 1,

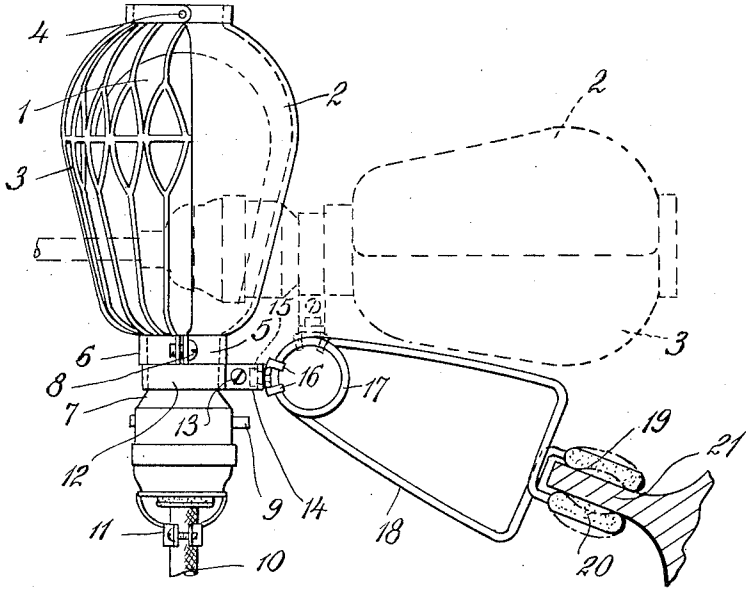


Fig. 2,

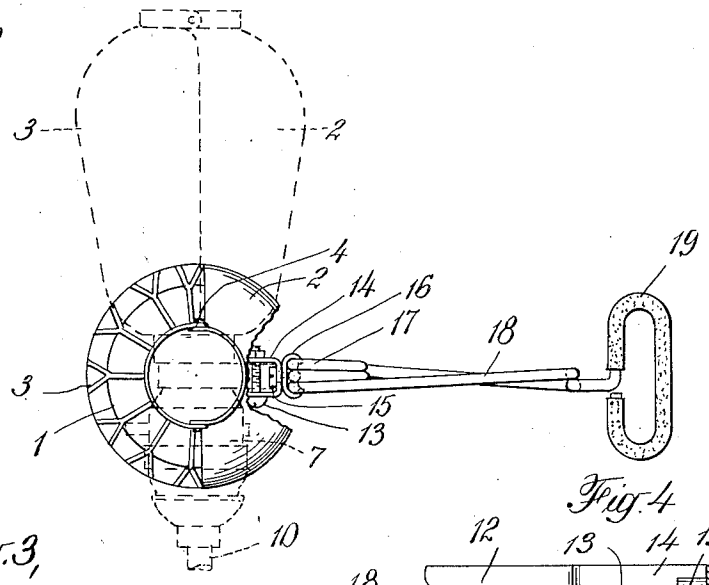


Fig. 3,

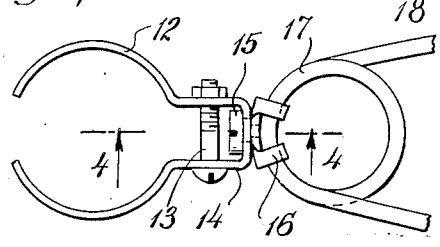
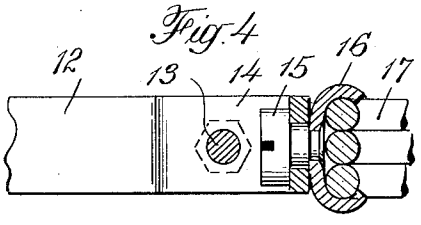


Fig. 4



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UNITED STATES PATENT OFFICE.

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PORTABLE GARAGE LIGHT.

Application filed April 13, 1927. Serial No. 183,279.

This invention relates to portable garage lights and is concerned more particularly with electric hand lights which may be readily manipulated to procure illumination under any circumstances of position or location.

In many cases the illumination emanating from fixed lights or lamps or entering from windows does not penetrate remote corners in which it is desired to have light, and shadows are thrown by the fixed lights so that it is difficult to see clearly. Under these conditions it is desirable to have a portable light so that illumination may be procured in the desired places where work is to be done, for example. This is particularly the case in garage work where light must be had in the remote parts of the automobile structure or mechanism. The majority of repair work, for example, is done on the motor beneath the hood, on the driving mechanism underneath the car, and in other places where light does not ordinarily penetrate. In order to obtain sufficient light, pocket flashlights, electric light globes on cord extensions, or similar lights have been used, but these expedients are all open to the objection that the light must be held in one hand or laid on or hung from some nearby projection or ledge. It is not always possible to find a convenient ledge upon which to lay the light or a projection upon which to hang it so that the light rays will be properly directed upon the desired spot. Furthermore, if the light is suspended by means of a cord, the swinging thereof will cause a flickering instead of the steady light necessary, and the light is not secure but will readily be displaced if merely laid on a ledge or projection. Other light mounting means have been devised which could be mounted on projections or ledges near to the spot to be lighted, but these forms of apparatus do not have the mobility or flexibility desired, so that they cannot be attached anywhere and at the same time be manipulated so that the rays of light may be directed precisely where required. Among these forms of light are those which may be mounted by means of a screw clamp or hook, but these devices are awkward to handle, usually requiring two hands, are only attachable to certain kinds of projections, frequently fall off at the wrong moment, and are otherwise objectionable.

It is the principal object of this invention to provide a portable light which will meet all conditions of operation, may be securely attached by one hand and in one operation to any nearby ledge or projection, and which consists of a number of flexible connections so that it may be manipulated to direct the rays of light upon any desired spot and in any direction, regardless of the position of initial mounting. In other words, the device has no "blind spots" but will direct rays in every radial direction from the source of light. The invention comprehends an improved mounting for an electric light globe, and comprises a protective cage including a reflector for the globe, which is connected to a spring clamp by means of universal mechanical connections whereby a movement relative to the clamp may be obtained so that the light rays may be directed in every radial direction from the source of light. The spring clamp is of such a character that it may be securely attached to any ledge or projection without danger of becoming detached by vibration or slippage, and may be operated by one hand and in one operation.

A better understanding of the invention may be had by reference to the accompanying drawings, in which

Fig. 1 is a side elevation of the portable garage light of this invention, showing two positions of use;

Fig. 2 is a plan view of the light showing other positions of use;

Fig. 3 is an enlarged view of the light bracket; and

Fig. 4 is a magnified section of the same taken along the line 4—4 of Fig. 3.

In the drawings, numeral 1 designates the light globe which is enclosed in a protective cage consisting of two halves, one of which is the reflector 2 and the other half being a rigid screen 3 of wire or the like. The reflector 2 and screen 3 comprising the cage are hinged together about rivets or pins 4 joining their top portions, while their lower portions terminate in two flanged semicircular bands 5 and 6 respectively, which together form a collar which is clamped about light socket 7. Screws 8 are tapped

into the flanges of bands 5 and 6 for holding the cage into engagement with socket 7, and which may be adjusted so as to permit of a relative movement between the socket 7 and the cage in order that the rays from light globe 1 may be directed in any desirable manner from reflector 2 merely by turning the cage about its mounting. Light socket 7 is provided with the usual snap or button switch 9 and is connected to the electric cord 10 in the usual manner. It is preferable that socket 7 be provided with a clamp 11 for gripping the cord 10 in order to prevent injury to or short-circuiting of the terminal connections of the cord inside of socket 7 which frequently occurs due to strain on the cord.

A collar 12 is clamped around socket 7 and held in position by a small bolt 13 spanning a projecting loop 14 forming part of the collar 12. Loop 14 forms one part of a swivel joint and is loosely connected by means of screw or rivet 15 to the other portion 16 of the swivel joint, and which comprises a clamp slidably engaging the several convolutions 17 of wire comprising the flexible hinge of clamp 18. This swivel joint is shown particularly in Figs. 3 and 4. Clamp 18 is formed of spring wire or other resilient material, and is slidable in clamp 16 so that it may be placed in angular relation to the clamp as well as to the remainder of the light structure. The gripping portions of clamp 18 consist of two flat ring-shaped clips 19 and 20, preferably covered with rubber tubing to procure a greater frictional gripping effect. Clips 19 and 20 may be curved laterally to form engaging concave surfaces for gripping round objects such as pipes or rods, as shown in phantom in Fig. 1, without detracting from the effective gripping of flat surfaces. The legs of clamp 18 are crossed at clips 19 and 20, scissors fashion, so that the resiliency of the wire normally maintains clips 19 and 20 in mutual engagement. By pressing the legs of clamp 18 together clips 19 and 20 may be separated to embrace the opposite surfaces of a ledge or projection 21, and then by releasing the pressure the clips 19 and 20 will securely grip projection 21 and hold the light in any desirable position. As pointed out above, clips 19 and 20 may be bent to form engaging concave surfaces, as shown in phantom in Fig. 1, for gripping round members such as pipes and rods, without detracting from their gripping effect on flat surfaces.

By virtue of the particular mechanical connections between the lamp portion of the device, which includes the socket, and the clamp 18, a number of combinations in their relative positions are obtainable. One of these movements is illustrated particularly in Fig. 1, in which the lamp unit is moved from the position shown in solid lines to that shown in phantom by the sliding motion of clamp 16 around the ring 17. This movement is in the plane containing the common axis of the lamp 1 and socket 7. Another movement is illustrated in Fig. 2 in which there is shown the relation between the clamp 18 and the lamp unit when moved relatively to each other about the swivel joint having screw or rivet 15 as the axis. This relative movement is about an axis perpendicular to the common axis of the lamp and socket. A combination of these relative movements, i. e., in the plane containing the common axis of the socket 7 and about an axis perpendicular to the axis of the socket 7, may be compounded to obtain any relative position between the lamp unit and clamp 18. By loosening screws 8, the lamp cage may have relative movement with respect to the socket upon which it is mounted by means of collar 5—6. Another movement may be obtained between the socket 7 and the clamp unit, by loosening screw 13 so that collar 12 is slidable upon socket 7. This movement and that obtained by relative movement between the socket and the cage have the same useful effect, namely that of shifting the reflector 2 to direct the light rays where desired, which is in addition to the light directing effect derived from the afore-mentioned movements between the lamp unit and the clamp unit.

The new portable light device constituting this invention procures many useful advantages to those heretofore obtained. By means of the new device, a greater mobility and flexibility are obtained, whereby the device may be securely mounted in one operation and by one hand to any convenient ledge, projection, pipe or rod, and may be manipulated to direct the rays of light in every radial direction. The preferred structure illustrated and described is economical to manufacture and rugged in use. The device is particularly useful as a portable garage light whereby remote corners in different portions of an automobile may be readily lighted and a steady light obtained. The clamping means is positive and proof against vibration and slippage, and may be attached to virtually any point and in any position. Other advantages are apparent, whereby countless uses for the device of this invention may be ascertained, but it is to be understood that the invention is not to be limited to the specific disclosure of the specification and drawing, but may be altered at will within the scope of the claim.

We claim:

A portable lamp comprising a support provided with a spring coil adjacent one end, a clamp comprising a blank provided with a substantially centrally disposed opening and having its end portions bent to form

grooves for the reception of the end portions of said coil, adjustably mounted on said coil, a screw mounted in the opening in said clamp, a collar having a substantially U-shaped portion provided with an opening through which the screw passes whereby the collar is pivotally mounted on said screw, and said collar also having a portion for yieldably engaging a lamp socket.

In testimony whereof we affix our signatures.

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