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PHOTOGRAPHIC LAMP

2 Sheets-Sheet 1



Fig. 6.

Fig. 1.

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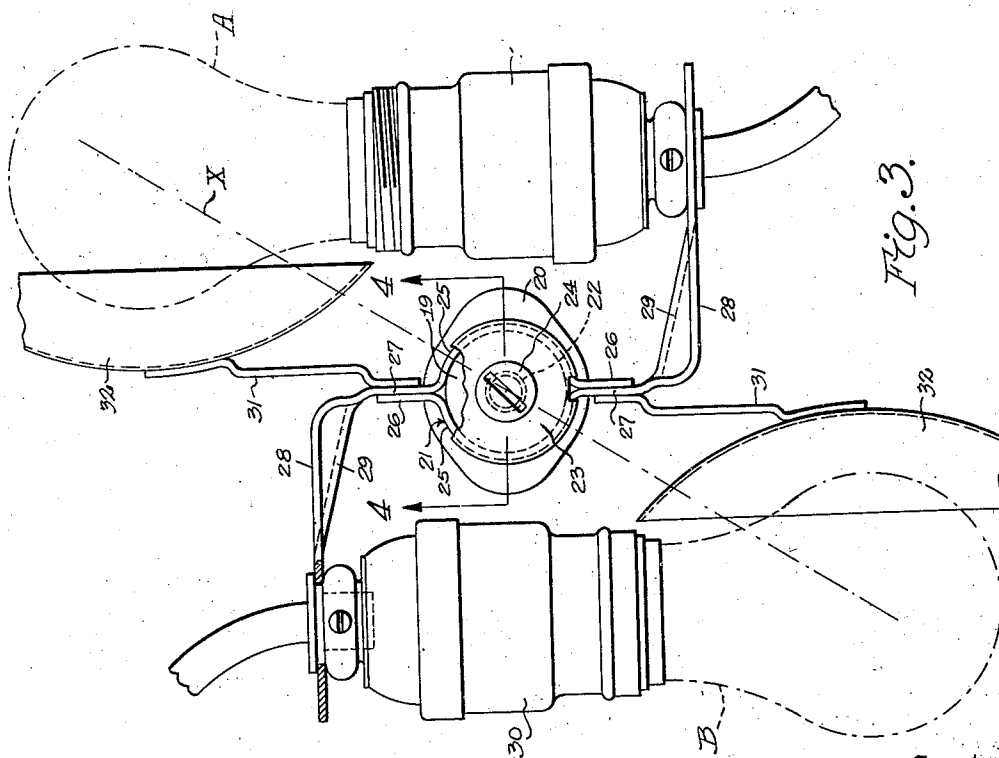
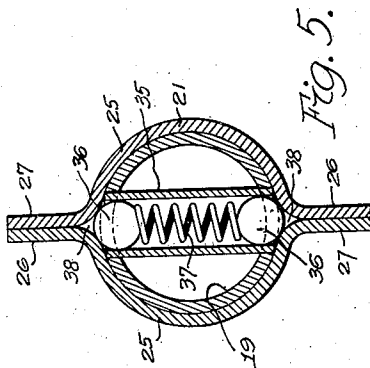
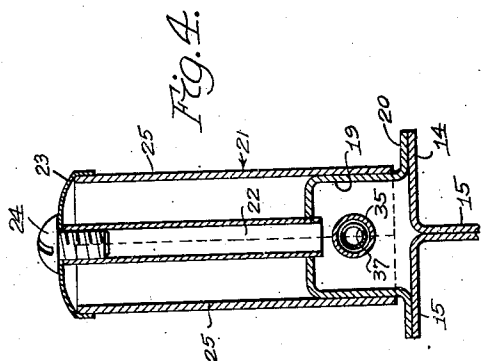
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2 Sheets-Sheet 2



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PHOTOGRAPHIC LAMP

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The present invention pertains to a novel flashead assembly for use in photography.

Where a flashlight bulb is to be used in illuminating the subject, the photographer first illuminates the subject with a standard incandescent lamp of suitable candle power and adjusts the lamp to the position that produces the desired light effects on the subject. He then removes the incandescent lamp from its socket and inserts the flashlight bulb in the socket.

The operation of substituting the flashlight bulb is awkward and time-consuming. The incandescent lamp has become hot while the photographer has been experimenting to find the most favorable position for it. Consequently he must either wait for the lamp to cool or, more frequently, cover his hands while removing the lamp. At least, the mere unscrewing of the lamp and the insertion of the flashlight bulb require an appreciable length of time during which the subject, if a living one, loses the freshness of the desired pose. Moreover, the manipulations required in unscrewing the incandescent lamp and screwing the flashlight bulb in the socket are liable to cause the photographer accidentally to alter the determined position of the lamp socket.

The principal object of this invention is to provide a means for substituting the flashlight bulb in a manner that overcomes all of the aforementioned difficulties.

The flashead constituting the subject matter of this invention is a pivotally mounted member or structure carrying both the incandescent lamp and the flashlight bulb. The construction is such that the two lamps are positioned symmetrically with respect to the axis of the pivotal mounting. The head is first adjusted for positioning of the incandescent lamp for the desired lighting effects, and in this connection there is a detent provided in the device for maintaining this position. When the flashlight bulb is to be substituted, the head is merely turned 180° whereby the flashlight bulb is brought into the position formerly occupied by the incandescent lamp. The detent construction is such that it also holds the position of the head after its 180° displacement. The head also carries reflectors properly positioned with respect to the respective lamps.

The structural parts of the device are preferably made of sheet metal and lend themselves to fabrication by a relatively inexpensive stamping process. The pivotal mounting is obtained by a post or boss on which is journaled a sleeve constituting the center or hub of the flashead. The

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post is universally adjustable on a base support through two swivel clamps affording adjustment in two planes.

The above and other objects of the invention will appear more fully from the following more detailed description and by reference to the accompanying drawings forming a part hereof and wherein:

Fig. 1 is a vertical elevation of the device;

Fig. 2 is a vertical elevation at right angles to Fig. 1;

Fig. 3 is a plan view;

Fig. 4 is a section on the line 4—4 of Fig. 3,

Fig. 5 is a section on the line 5—5 of Fig. 1; and

Fig. 6 is a fragmentary plan view similar to Fig. 3 of a slightly modified construction.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

The device is mounted on a suitable support or post identified in Figs. 1 and 2 by the numeral 10. The attachment of the device to the support 10 is accomplished by means of a bracket having a frame-like body or loop 11 and a stem 12 extending upwardly therefrom. The bracket has an aperture in the crosspiece of the loop 11 so that it may slip over the support or post 10 and is fixed thereon by a wing screw 13 threaded through one side of the loop 11 and bearing on the member 10. The bracket 11, 12 is preferably made of sheet metal, and it will be understood that other parts having a comparable thickness may also be stamped out of sheet metal.

On the stem 12 is mounted a T-shaped bracket comprising a cross head 14 and a stem 15 which is forked at 16 at its lower end to receive the stem 12. The parts are held together by a bolt 17 passed therethrough and a wing nut 18 on the bolt. Although Figs. 1 and 2 are assumed to be vertical elevations, it will be understood that the position of the device as determined by the direction of the stem 15 and the plane of the head 14 is immaterial; and the bracket 14, 15 may be adjusted about the bolt 17 and fastened in the selected position by tightening the wing nut 18.

Upon the head 14 is mounted a short post or trunnion 19 also formed of sheet metal and having at one end an outward flange 20 by which it is welded or otherwise secured upon the head 14, as shown more clearly in Fig. 4. A cylindrical sleeve 21 which is considerably longer than the trunnion 19 has one end journaled on the trunnion. The mounting is secured by a tube 22 having one end journaled in the trunnion 19 and

the other end extending slightly beyond the opposite end of the sleeve 21. A cap 23 is fitted on the last-named end of the sleeve and is clamped to the tube 22 by a screw 24 passed through the cap and threaded into the outer end of the tube 22.

The sleeve 21 consists of a pair of semi-cylindrical shells 25, each having outwardly extending flanges 26, 27 at its edges, the flanges 26 of each member being secured in surface contact with the flanges 27 of the other member. The flanges 27, lying on opposite sides of the axis of rotation, are extended laterally in opposite directions as indicated by the numeral 28 in Fig. 3. The extensions 28 may, if desired, be ribbed at 29 across the angle for reinforcement. Each extension 28 supports a conventional lamp socket 30. The sockets, being disposed on corresponding surfaces of the extensions and at corresponding points thereof, are related symmetrically with respect to the axis of the trunnion 19.

As shown in Figs. 1 and 3, the sleeve 21 may be provided with a pair of reflector brackets 31 also disposed symmetrically with respect to the axis of the trunnion 19. These brackets may be secured, for example, to the respective flanges 27 of the shells 25. The brackets 31 carry reflectors 32 properly arranged with respect to lamps mounted in the sockets 30, as will presently be shown.

One of the sockets carries a lamp A of high intensity on the order of 200 watts. This is a conventional or standard incandescent lamp. The other socket 30 carries a photographic flashlight bulb B.

The result of the described symmetrical arrangement of the lamp sockets and reflectors with respect to the axis of the trunnion 19 is that the lamps A, B, being of similar shape, also have corresponding points thereof symmetrically disposed with respect to the axis of rotation of the sleeve 21. The critical requirement, however, is that the respective centers of illumination of the lamps be disposed symmetrically with respect to the axis of rotation of the sleeve 21. This condition is indicated by the center line X in Fig. 3. Consequently, if the sleeve is rotated 180° from the position shown in Fig. 3, the lamps A and B will occupy the exact positions formerly held by the lamps B and A. The reflectors 32 are, of course, positioned for the most effective and efficient projection of light from the lamps with which they are respectively associated. Instead of the reflectors 32 being mounted upon separate brackets 27, a reflector 40 may be provided with the customary threaded neck 41 and screwed directly as shown in Fig. 6 upon the screw threads 30—a provided on the standard lamp sockets 30, the latter being the preferred construction.

In the use of the device, the incandescent lamp A with its reflector 32 is positioned for the desired illumination of the subject to be photographed. The adjustment is made by first setting the support or post 10, which is usually portable, then adjusting the bracket 11, 12 on the post by the screw 13, and finally tightening the bracket 14, 15 at the desired angle to the bolt 17 by means of the wing nut 18 as already described. The sleeve 21 is held against rotation about the trunnion 19 by means of a detent consisting of a tube 35 mounted diametrically in the trunnion and hav-

ing a ball 36 at each end, the balls being held apart by a coil spring 37. The balls lodge in seats 38 formed between the inner ends of adjacent flanges 26, 27.

The balls 36, while maintaining the sleeve 21 in an end position, are yieldable to a turning force applied to the sleeve. When the incandescent lamp A has been properly adjusted on the subject, the device is swung manually through an arc of 180° to bring the flashlight bulb B into the exact focusing position of the lamp A. This position is also maintained by the detent device. The shutter is then opened, with simultaneous flashing of the bulb B in the usual manner.

It is now evident that practically no time is lost in substituting the flashlight bulb for the incandescent lamp. Since the photographer need not wait for the incandescent lamp to cool and need not unscrew it, no complicated manipulation on his part is necessary, and the subject, if a living one, does not tire and does not impair the desired pose.

While I have shown a satisfactory constructional example of the present invention, it will be understood that many changes, variations and modifications of the specific constructional details may be resorted to without departing from the spirit of the appended claims.

We claim:

1. A flashead assembly comprising a trunnion, a pair of semi-cylindrical shells rotatably fitted on said trunnion and having outward flanges at their longitudinal edges, the flanges of each shell being secured to the flanges of the other shell to form a sleeve, each pair of attached flanges forming a seat in the inner wall of said sleeve, a detent in said trunnion adapted to cooperate with said seats, and a pair of lamp sockets carried by said brackets and disposed symmetrically with respect to the axis of rotation of said body.

2. A flashead assembly comprising a trunnion, a pair of semi-cylindrical shells rotatably fitted on said trunnion and having outward flanges at their longitudinal edges, the flanges of each shell being secured to the flanges of the other shell to form a sleeve, each pair of attached flanges forming a seat in the inner wall of said sleeve, a tube mounted diametrically in said trunnion, a coil spring in said tube, and a detent ball at each end of said spring and adapted to lodge in said seats, and a pair of lamp sockets carried by said brackets and disposed symmetrically with respect to the axis of rotation of said body.

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