

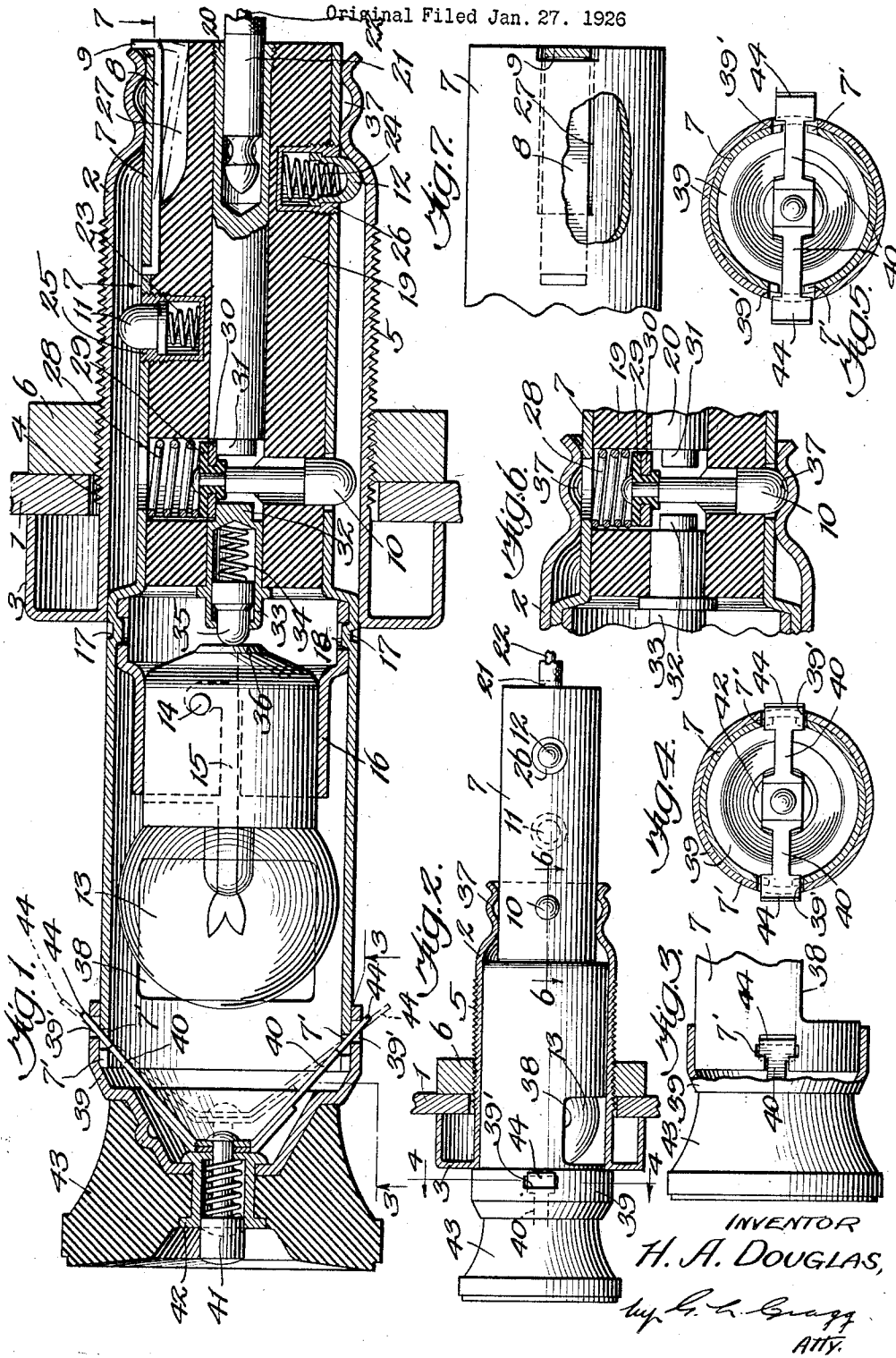
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ELECTRIC LAMP

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UNITED STATES PATENT OFFICE.

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ELECTRIC LAMP.

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My invention, in accordance with one of its characteristics, includes a light transmitting opening preferably in the side of the inner member that is in the form of a shell that contains the lamp and through which opening the lamp shines. This opening is so positioned that it may be opened or closed according to the relative longitudinal positions occupied by the members.

In accordance with another feature of the invention, a closure is provided for the lamp holding shell and a latch is employed for holding the closure in place. In the preferred embodiment of the invention the closure carries a push button for operating the latch.

The invention will be more fully explained in connection with the accompanying drawing in which Fig. 1 is a longitudinal sectional view of the preferred embodiment thereof; Fig. 2 is a view showing a part of the structure in side elevation and a part of the structure in section and illustrating changed positions of some of the parts shown in Fig. 1; Fig. 3 is a view on line 3—3 of Fig. 1; Fig. 4 is a sectional view on line 4—4 of Fig. 2; Fig. 5 is a view similar to Fig. 4 but showing changed positions of some of the parts; Fig. 6 is a sectional view, on a larger scale, on line 6—6 of Fig. 2; and Fig. 7 is a view taken generally on line 7—7 of Fig. 1.

The device of my invention is illustrated as being adapted to a location upon the dash board or mounting panel 1. The metallic cylindrical sleeve 2 is returned at its front end as indicated at 3, the rear end of the extension 3 being engageable with the front face of the dash board or panel that has an opening 4 through which the central or unreturned portion of the sleeve is passed. The sleeve is threaded as indicated at 5 to receive a nut 6 which is screwed against the rear face of the panel 1 whereby the returned portion of the sleeve 3 is clamped against the panel to hold the sleeve in position. A metallic cylindrical shell 7 is surrounded by the sleeve 2 with which it is in telescopic engagement. This shell carries a detent in the form of a leaf spring 8 anchored at its inner end to the shell and having a lateral extension 9 normally in alignment with the

sleeve and engageable with the rear end of the sleeve to limit the extent to which the shell may project beyond the front end of the sleeve. By depressing the detent, the shell may be withdrawn through the front end of the sleeve to permit the sleeve and shell to be separated. The shell carries laterally movable outwardly spring pressed plungers 10, 11 and 12 which are engageable with the side of the sleeve to hold the shell in any of the various positions in which it may be placed along the sleeve. The front and projecting end of the shell is desirably enlarged to contain the incandescent lamp 13 whose base is provided with bayonet pins 14 receivable in the bayonet slots 15 formed in a socket 16 held in assembly with the shell by means of indented portions 17 upon the shell that enter openings 18 formed in the base of the socket.

The lamp illustrated is a single pole lamp whose base is surrounded by a metallic sheath connected with one terminal of the lamp filament and grounded through the socket 16, which is metallic, and the suitably grounded metallic shell 7. The reduced rear end of the shell contains a cylindrical plug of insulation 19 carrying a metallic terminal 20 in the form of a rod coaxial with and extending through the insulating plug. The rear end of this rod has a cylindrical opening to constitute a socket formation in which the metallic circuit terminal plug 21 may be received, the union between the plug 21 and the terminal 20 being thus such that the plug 19 and the parts assembled therewith may be turned without twisting the wire 22 leading to the plug 21. The springs 23 and 24 which press the plungers 11 and 12 outwardly are contained within spring barrels 25 and 26 which are screwed into the shell 7 and extend into recesses formed in the plug 19. Another recess 27 is provided to receive the free end of the latch of the detent 8 when this latch is depressed into the releasing position shown by dot and dash lines in Fig. 1.

The spring 28 which presses the plunger 10 outwardly is housed within a recess formed in the plug 19. This spring bears at its outer end against the inner side of the shell

7 and presses at its inner end against an insulating bushing 29 to which the stem of the plunger 10 is riveted. A metallic ring 30 is received within an annular recess 5 formed in the bushing 29 and is positioned to be pressed by the spring 28 into engagement with the front and reduced end 31 of the metallic terminal rod 20 and the reduced rear end 32 of the metallic spring barrel 33 which is secured to and within 10 the front end of the plug 19 and which is aligned with the terminal rod 20. A spring 34 is located within the spring barrel 33 and presses a metallic contact plunger 35 forwardly into engagement with the lamp 15 terminal contact 36 carried upon the rear face of the base of the lamp. This contact 36 is connected with the remaining terminal of the lamp filament. The spring 34 not 20 only serves to establish contact between the plunger 35 and the lamp contact 36 but also serves to hold the bayonet pins 14 in their seats within the bayonet slots 15. When the spring 28 is fully expanded it causes the 25 metallic ring 30 to electrically connect the terminal rod 20 with the spring barrel 33 and as this spring barrel is in electrical connection with the contact plunger 35, circuit is established when this spring is fully 30 expanded.

When the circuit of the lamp is to be opened, the shell is moved rearwardly until the plunger 10 is received in the annular space 37. This space is of smaller diameter 35 than the diameter of the forward portion of the sleeve 2 so that the plunger 10 is depressed, when received in the space 37, against the force of the spring 28 to separate the ring 30 from its complemental contacting portions 31 and 32. When the lamp 40 is thus in open circuit, the plunger 10 also serves to hold the shell in its circuit opening position. When the circuit is closed, the plunger 10 desirably has no contact with 45 the sleeve 2 in order that the spring 28 may forcibly press the ring 30 against its complemental contacts 31 and 32. At this time, the plungers 11 and 12 serve to hold the shell in its adjusted position within the 50 sleeve. The shell is formed with a light transmitting opening 38 in its side, this opening being positioned to permit the lamp to shine therethrough. The shell may be adjusted rearwardly to vary the position of 55 the lamp and the opening 38 with relation to the dash board 1 so that the location of the light emanating from the lamp may be shifted. The plungers 11 and 12 are also receivable in the annular space 37. These 60 plungers are located at different positions along the plug 19 so that the shell may be held in different positions with the light transmitting opening 38 in front of the panel 1 and the returned portion 3 of the 65 sleeve 2. The shell may be further moved

rearwardly sufficiently to enable the shell to cover the opening 38.

The front end of the shell 7 is provided with a closure that is preferably in the form of a cap 39 having a rearwardly extending 70 skirt which surrounds the front end of the shell. Two latches are carried by the closure cap, each latch being desirably in the form of a spring bar 40. These bars are desirably formed in one piece and are assembled with the shank of the outwardly spring 75 pressed push button 41 housed within a spring barrel 42 which passes through and is assembled with the handle portion 43 and which is also assembled with the closure cap 80 39. The latch bars 40 are laterally extended at their rear ends, these extensions being desirably in the form of T heads 44. The skirt of the closure cap 39 and the forward end of the shell 7 are provided with registrable openings 39' and 7' which receive 85 the T headed extensions 44, these T headed extensions thus serving to latch the shell and cap together. When the push button is pressed inwardly, the reduced portions of 90 the bars 40 adjacent the extensions 44 are received in the openings 7' and the T headed extensions are ejected from these openings, whereupon the cap may be withdrawn, the reduced portions of the bars 40 passing 95 through the front reduced portions of the openings 7' in this withdrawing movement. When the cap is restored, the button is depressed and when the openings 7' and 39' 100 have been brought into proper register, the button is released whereby the latches adjust themselves to bring their extensions 44 into the openings 7' and 39'. When the closure 105 is assembled with the shell 7, the handle 43 may be employed to effect various adjustments of the shell 7 longitudinally of the sleeve 2. Features not herein claimed form the subject matter of my original application 84,099, filed January 27, 1926 of which 110 the present application is a division.

Changes may be made without departing from the invention.

Having thus described my invention, I claim:

1. The combination with a shell; of a lamp within the shell; a closure for one end of the shell; and a latch carried by said closure and in the form of a bar having a lateral extension movable into registrable 115 openings formed in the closure and shell to latch the closure and shell together, the opening in the shell having a reduced continuation in the form of an open ended slot in which the portion of the bar adjacent 120 the lateral extension of the bar is receivable and is passed to release the latch. 125

2. The combination with a shell; of a lamp within the shell; a closure for one end of the shell; a latch carried by said closure and in the form of a bar having a lateral 130

extension movable into registrable openings formed in the closure and shell to latch the closure and shell together, the opening in the shell having a reduced continuation in the form of an open ended slot in which the 5 portion of the bar adjacent the lateral extension of the bar is receivable and is passed to release the latch; and a push button carried by the closure for adjusting the latch to releasing position, the latch being self 10 adjustable to holding position.

In witness whereof, I hereunto subscribe my name.

HARRY A. DOUGLAS.