

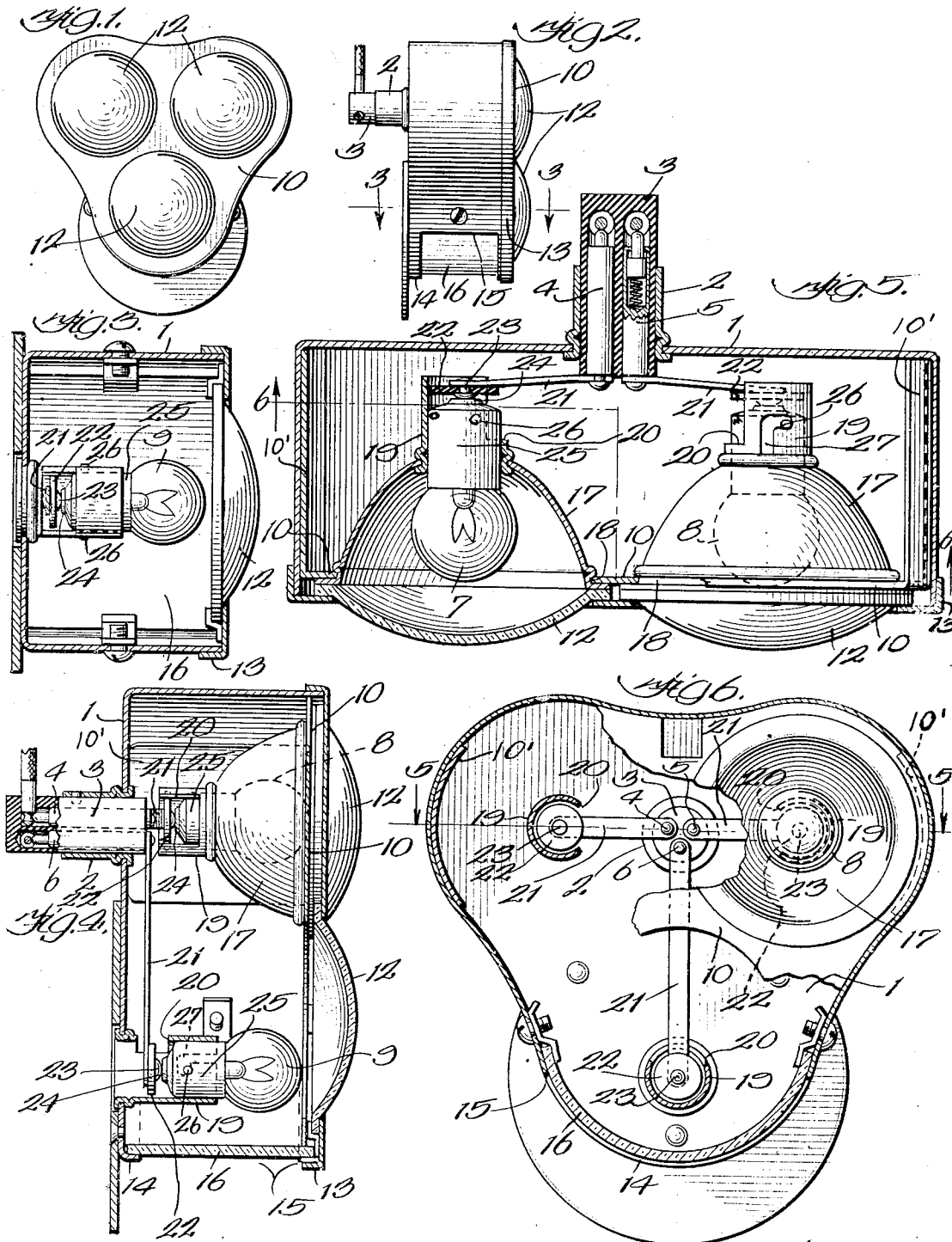
Oct. 29, 1929.

H. A. DOUGLAS

1,733,368

ELECTRIC LAMP

Filed Jan. 27, 1926



Inventor:
Harry A. Douglas
By L. L. Cragg Atty.

UNITED STATES PATENT OFFICE

HARRY A. DOUGLAS, OF BRONSON, MICHIGAN

ELECTRIC LAMP

Application filed January 27, 1926. Serial No. 84,097.

My invention relates to electric lamps and has for its object the provision of an improved construction for readily establishing terminal connections therefor.

5 In carrying out my invention, I provide a socket for the lamp and a strip metal spring arm anchored at one end to the support for the lamp and having at its unanchored end a contact positioned with relation to the socket
10 to be engaged by a contact upon the lamp base.

In the preferred embodiment of the invention, the support is in the nature of a housing which also encloses the lamp and which
15 is furnished at its front end with a light transmitting opening that is desirably covered by transparent or translucent glass. The rear wall of the housing carries a circuit terminal which constitutes an anchorage for
20 said strip metal spring arm and is in electrical connection with this spring arm so that the circuit may be continued from said terminal by the spring arm to the lamp. The socket for the lamp is desirably metallic and
25 has a slot in its side, the rear end of the slot being open to permit the spring arm to be received, at its unanchored end, within the rear portion of the socket. The spring arm is provided with a body of insulation to keep
30 it out of electrical engagement with the socket.

The invention will be more fully explained in connection with the accompanying drawing in which Fig. 1 is a front view of a structure constructed in accordance with the preferred embodiment of the invention and inclusive of a housing adapted to enclose three lamps and furnished with four light transmitting openings, the lamps being adapted
35 for use as automobile signal devices in a manner well understood; Fig. 2 is a side view of the structure shown in Fig. 1; Fig. 3 is a sectional view on line 3—3 of Fig. 2, on a larger scale; Fig. 4 is a vertical sectional view, on
40 a larger scale; Fig. 5 is a sectional view on

line 5—5 of Fig. 6; and Fig. 6 is a sectional view on line 6—6 of Fig. 5.

The support for the lamps illustrated is preferably in the nature of a housing whose rear wall 1 carries a rearwardly projecting
50 sleeve 2 in which is positioned a plug of insulation 3. This plug of insulation carries three rigid circuit terminals 4, 5 and 6, one for each of the three incandescent lamps 7, 8 and 9, enclosed by said housing. The front
55 wall 10 of the housing is formed with three light transmitting openings covered by lenses 12 held in assembly with the housing by means of a cap plate 13. The side wall 14 of the housing is formed with a light transmitting
60 opening 15 which is closed by an arcuate glass closure 16, the opening 15 and the glass closure 16 being located at the bottom of the housing in order that light may be directed downwardly. A concave reflector 17
65 is provided for each of the incandescent lamps which such reflector encloses. Each reflector has an annular channel 18 at its front end in which the portions of the front end wall 10 which surrounds the openings
70 therein are received, whereby the reflectors are supported at their front ends with the balance thereof surrounded by the housing. A lamp holding socket 19 is suitably assembled with each reflector from which the sockets rearwardly project. These sockets are
75 placed abreast and their lamp receiving ends face the front wall of the housing in order that the light may shine through this wall. Each socket is formed with a slot 20. Radiating from the circuit terminals 4, 5 and 6, respectively, are current conveying strip metal spring arms 21. These spring arms extend into the sockets 19 through the slots 20, the spring arms being capable of
80 play, at their free ends, in said slots and in the open rear ends of said sockets. The unanchored ends of the spring arms are prevented from having electrical contact with the sockets by means of plates or bodies of insula-
90

tion 22, carried thereby, which are received in the rear open ends of the sockets and which project laterally beyond the spring arms carrying them for the purpose stated. Metal rivets 23 assemble the insulating bodies 22 with the unanchored ends of the arms and have electrical connection with these arms, respectively. The front ends of these rivets serve as contacts to engage the contacts 24 provided upon the rear ends of the lamp bases 25. These lamp bases desirably carry bayonet pins 26 receivable within bayonet slots 27 formed in the sockets 19 whereby the lamps and sockets may be assembled. The spring arms are so set that the contacting portions 23 provided thereon will be located forwardly beyond their places of engagement with the contacts 24 when the lamps are removed from the sockets so that said spring arms are placed under tension when the lamps are assembled with their sockets. The spring arms not only thus have firm electrical connection with the lamps, when the lamps are in place, but also serve to seat the bayonet pins in the bayonet slots.

It will be noted that the front wall 10 has rearward extensions 10' which telescope with the rear portion of the housing. Therefore after removing the cap plate 13 the front wall 10 can be withdrawn from the remainder of the housing carrying with it the reflectors 17 and sockets 19, it being apparent that such disassembling operation will in no way disturb the contact arms 21. The conditions just pointed out are also of great advantage in assembling the device as the elements carried by the front and rear parts of the housing respectively can be applied while said parts are disassembled, leaving only the telescoping of the housing sections and the application of the plate 13 to complete the assembling operation.

Changes may be made without departing from the invention.

Having thus described my invention, I claim:

1. In a signal lamp, the combination of a housing having separable front and rear sections, a circuit terminal mounted in the rear wall of said housing, a pair of spring conductor arms in electrical connection with and extending radially from said terminal, a pair of spaced reflectors, said reflectors having their forward ends secured to the front wall of the housing, a lamp holding metallic socket secured to each reflector at the rear end of the latter, each of said sockets having cut away portions opening rearwardly thereof and through which the related conductor arm extends for cooperation with a light bulb.
2. In a signal lamp, the combination of a housing having separable front and rear sections, an electrical current distributing device carried by the rear wall of the housing, a pair of spaced reflectors, said reflectors hav-

ing their forward ends secured to the front wall of the housing and covering openings in said wall, and a lamp holding metallic socket secured to each reflector at the rear end of the latter, each of said sockets having cut away portions opening rearwardly thereof and through which a part of the electrical distributing device extends for cooperation with a light bulb.

In witness whereof, I hereunto subscribe my name.

HARRY A. DOUGLAS.