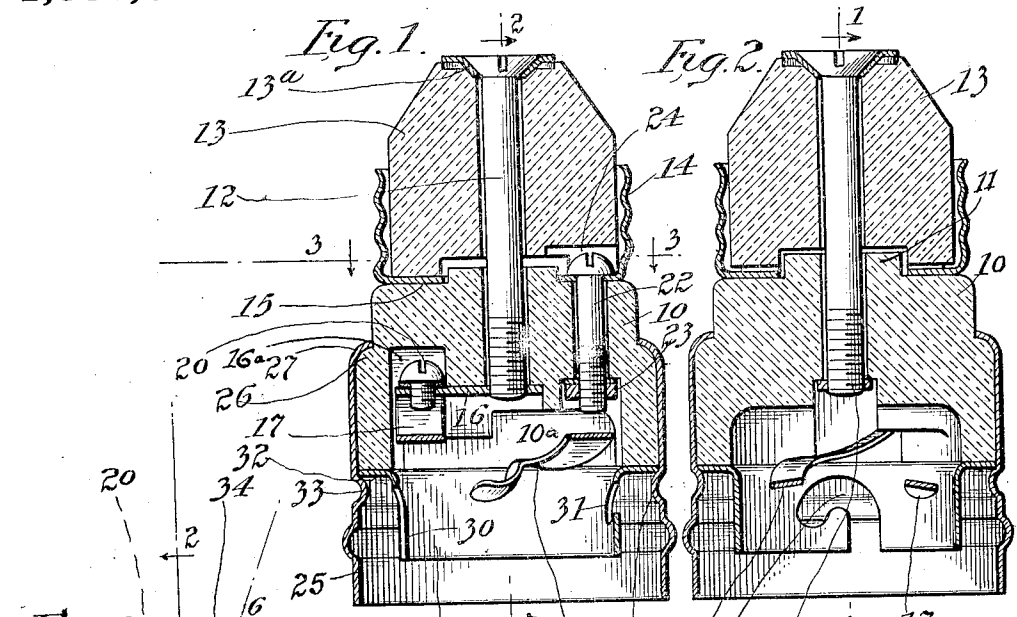
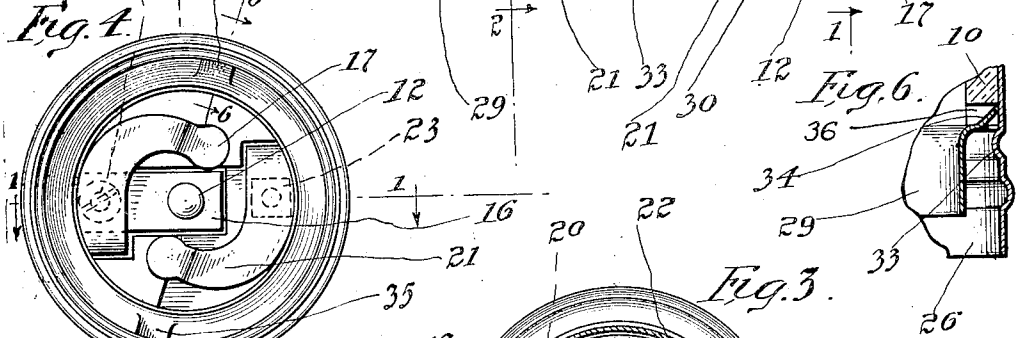
R. B. BENJAMIN.

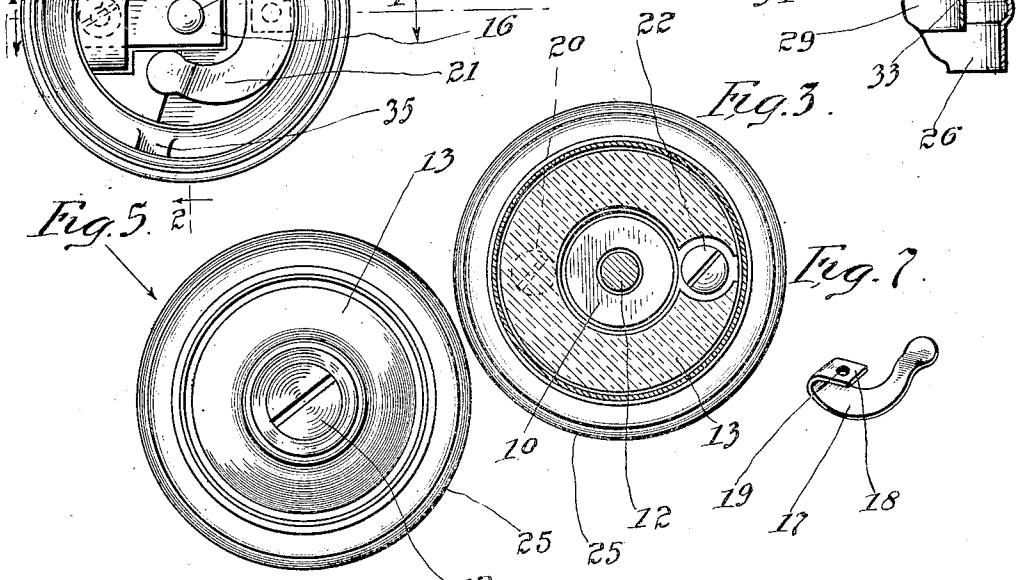
ELECTRICAL CONNECTING DEVICE.

APPLICATION FILED SEPT. 13, 1918.

1,336,608. Patented Apr. 13, 1920.







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UNITED STATES PATENT OFFICE.

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ELECTRICAL CONNECTING DEVICE.

1,336,608. Specification of Letters Patent. Patented Apr. 13, 1920.

Application filed September 13, 1918. Serial No. 253,283.

To all whom it may concern:

Be it known that I, REUBEN B. BENJAMIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Electrical Connecting Devices, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

This invention relates to improvements in electrical connecting devices, and particularly to a connecting device which is adapted to be screwed into a lamp-receiving socket of the Edison type, and to receive a lamp, plug or the like of the Edi-Swan type.

One of the objects of the invention is to provide a device of this class which is simple and economical to manufacture and which has but few parts, these parts being readily assembled and the device as a whole being so constructed as not readily to get out of order.

Another object is to provide improved means for holding the bayonet socket in place without the use of extra parts such as screws or rivets.

In the accompanying drawings, I have illustrated a form of adapter employing the features of my invention. In these drawings,

Figure 1 shows a central longitudinal section of the device, the section being taken on the lines 1—1 of Figs. 2 and 4 looking in the direction indicated by the arrows.

Fig. 2 is a central longitudinal section taken on the lines 2—2 of Figs. 1 and 4.

Fig. 3 shows a cross section of the device, the section being taken on the line 3—3 of Fig. 1 looking in the direction of the arrows.

Fig. 4 is an end elevational view of the device looking into the socket or lamp-receiving end thereof.

Fig. 5 is an end elevational view looking toward the plug end of the device, or the end which is adapted to be screwed into an Edison socket.

Fig. 6 is a fragmentary sectional detail view showing means for preventing relative turning between the lower insulating member and the bayonet socket.

Fig. 7 is a perspective view of one of the spring contacts with which the socket portion of the device is provided for engagement with the end contacts on the Edi-Swan translating device.

In these several figures, in which the same reference numerals indicate the same parts throughout, 10 is an insulating member which forms the principal part of the body of the device. This member 10 is formed with a centrally disposed forwardly projecting portion 11 and with a central aperture through which extends a screw 12. This screw forms the center contact of the plug portion of the device and secures to the member 10 another insulating member 13. This member 13 is also centrally apertured for the passage of the screw 12 and is surrounded by a threaded shell 14 which constitutes the outer contact of the plug. This shell 14 has the form of a cup with the central portion of its bottom 15 removed. This cup is clamped between the insulating members 10 and 13 and held against lateral movement by the projecting portion 11 of the insulating member 10, this portion extending up through the bottom of the cup into a recess formed in the inner end of member 13. A cupped washer 13^a is confined between the head of the screw 12 and the forward end of the insulating member 13, this washer lying in a suitable recess in the member 13 and forming a larger end contact for the plug than would be afforded by the head of the screw alone.

The lower end of the lower insulating member 10 is chambered out at 10^a to provide a space for the spring contact members. The inner end of the screw 12 is threaded into a conducting plate 16 to which is secured the contact member 17. This member, which is shown by itself in Fig. 7, has an end 18 which is doubled back upon itself and formed with an opening 19 through which passes a screw 20, the latter being threaded into an opening in the plate 16. The plate 16, the screw 20 and the upper end of the contact member 17 lie in a recess 16^a which communicates with the chamber 10^a. The contact member 17 is curved so that it may lie in a position which brings its free end somewhat to one side of the axis of the device and has sufficient length to render it somewhat yielding in order that it may make proper contact with one of the contacts of the translating device. A second spring contact member 21, similar in form

to the contact 17, is held in position by a screw 22 which passes through an opening in the insulating member 10 and the aperture in the contact member 21, and is threaded into a nut 23. This screw 22 has its head located in a recess 24 which is formed in the outer insulating member 13 for its accommodation and serves to prevent rotation of part 13 with respect to the part 10. This screw also extends through an opening in the bottom 15 of the cup-shaped threaded contact member 14, the head of the screw serving to clamp the cup 14 to the insulating member 10 and form electrical connection between it and the resilient contact member 21.

The insulating member 10 is inclosed by a substantially cylindrical shell or casing 25 which extends beyond the edge of the insulating member and forms a skirt to surround the socket portion of the device. This casing shell has its inner edge 27 bent inwardly and resting upon a shoulder 26 which is formed upon the insulating member 10.

The socket shell 29 is formed with the usual bayonet slots 30 and 31 and has its inner edge 32 outwardly flanged and confined between the end of the insulating member 10 and a bead 33 which is formed after the parts are assembled and holds these parts together. The socket 29 is prevented from turning with respect to the insulating member 10 by having its flanged edge 32 slit so as to form tongues 34 at diametrically opposite points, these tongues being bent up and projecting into recesses 36 formed for their accommodation in the insulating members 10.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is—

1. An electrical connecting device comprising a plug and a socket, each having suitable contacts, an insulating base, and a casing inclosing a portion of the device and having a skirt extending beyond the socket, said socket having an outturned edge and said casing being indented to form a shoulder, the edge of the socket being confined between the insulating base and said shoulder.

2. An electrical connecting device comprising a chambered insulating base, a pair of yielding spring contacts arranged in the chamber of said base, a socket having an outturned edge seated against the end of said insulating base, a casing surrounding a portion of said base and having a skirt extending beyond the socket, and means formed on said casing to retain said socket in engagement with the end of said base.

In witness whereof I have hereunto subscribed my name.

REUBEN B. BENJAMIN.