

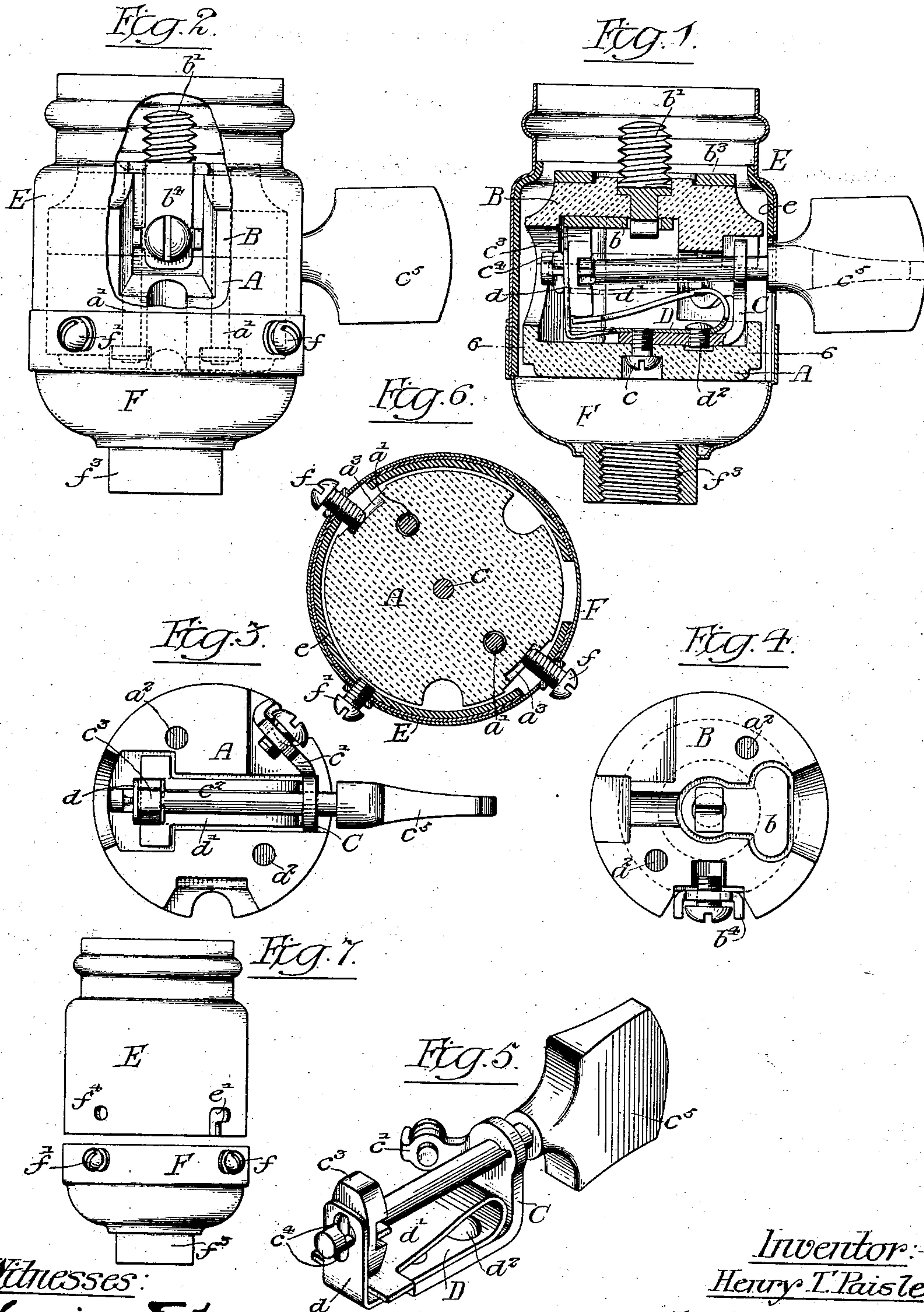
No. 696,261.

Patented Mar. 25, 1902.

H. T. PAISTE.
INCANDESCENT LAMP SOCKET.

(Application filed Apr. 16, 1901.)

(No Model.)



Witnesses:

Samuel S. Turner
John H. Whithead

Inventor:-

Henry T. Paiste

by his Attorneys:

Horsman & Horsman

UNITED STATES PATENT OFFICE.

HENRY T. PAISTE, OF PHILADELPHIA, PENNSYLVANIA.

INCANDESCENT-LAMP SOCKET.

SPECIFICATION forming part of Letters Patent No. 696,261, dated March 25, 1902.

Application filed April 16, 1901. Serial No. 56,144. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. PAISTE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Incandescent-Lamp Sockets, of which the following is a specification.

My invention relates to certain improvements in sockets for incandescent lamps, having for its object the provision of improved means for securing good electrical contact between the movable switch member and a fixed metallic piece connected to one of the terminals of the socket.

A further object is to provide an improved device for locking together the two parts of the shell of the socket.

These objects I attain as hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical sectional view of my improved socket. Fig. 2 is a side view of the socket with part of the shell thereof cut away to show one of the terminals for the attachment of one of the conducting-wires. Fig. 3 is a plan view of one part of the porcelain body of the socket with a portion of the switch mechanism attached thereto. Fig. 4 is an inverted plan view of the second part of the porcelain body with the remainder of the switch mechanism. Fig. 5 is a perspective view of the switch mechanism belonging to the part of the body shown in Fig. 3. Fig. 6 is a transverse sectional view of the socket on the line 6-6, Fig. 1, showing the positions and arrangement of the locking-screws; and Fig. 7 is an outside view of the shell, showing the improved locking device therefor.

In the drawings, A and B are the two pieces of porcelain or other suitable insulating material which form the body of the socket, and these are held rigidly together by screws $a' a'$ passing through holes $a^2 a^2$ in said pieces and having heads at one end and nuts at the other.

To the piece A, which is molded into any desired form, is tightly held an L-shaped piece C by means of a screw c . From one side of said piece extends an arm c' , having in it a screw forming one of the terminals for the attachment of a conducting-wire. The vertical part of the piece C has an opening through it forming one of the bearings of the switch-spindle c^2 , the other bearing for said

spindle being provided in the vertical part of a piece D, preferably made of spring metal of the form shown, held to the piece C both by the screw c and by a screw d^2 .

From Fig. 1 it will be seen that the part d of the piece D supporting the end of the switch-spindle is overhung from the end of the piece C, while the part d' of said piece is so bent as to press against a contact-block c^3 , loosely keyed to the said switch-spindle in the well-known manner. The spindle c^2 has projections c^4 on one end for retaining it in the bearings in the pieces C and D, there being the customary handle c^5 , of insulating material, on the other end. The second part B of the porcelain body has a metallic contact-piece b placed so as to be engaged by the block c^3 when the switch is in its closed position, the said piece b being riveted in the present instance to a projection for a screw-stud b' , which forms one of the lamp-terminals of the socket. Surrounding this stud and concentric with it is a metallic ring b^3 , through which pass the screws $a' a'$, these latter serving to retain the said ring in position, as well as to hold together the two parts A and B. The ring b^3 has a projection b^4 from one side, with a screw which serves as the second terminal for the attachment of a conducting-wire, the ring b^3 serving for the second lamp-terminal.

Surrounding the porcelain body above described is the shell, composed of two parts E and F, the former of these having within it an insulating lining or bushing e and having two L-shaped slots therein, into which enter the screws $f f$, threaded through the reinforced edge of the part F, thus making it possible to couple the said two parts together by the well-known bayonet-joint. These screws $f f$ project inwardly to a sufficient extent to enter recesses $a^3 a^3$, molded in the porcelain piece A, by which means the body of the socket is retained in fixed position with the socket.

In addition to the above there is a third screw f' , threaded through the part F of the socket shell, the same being so placed that it will enter a suitable hole f^4 in the part E only after the latter has been rotated so as to fully enter the screws $f f$ in their L-shaped recesses, as shown in Figs. 6 and 7. By this

means I rigidly lock together the two parts of the socket-shell without requiring the customary clamping-pieces which are ordinarily attached to the threaded nipple f^3 at the end of the part F, it being impossible with my device for the said two parts of the socket to come apart as long as the screw f' is set up. Moreover, by the use of said screw as a locking means any liability to rocking of one part of the socket upon the other is avoided, the parts E and F being tightly and immovably connected.

In use when the handle c^5 is turned the contact-block c^3 is moved to a vertical position between the fixed contact-piece b and the spring end d' of the piece D. The device being constructed so that the distance between the center of the spindle c^2 and the surface of the contact-piece b is less than one-half the length of the block c^3 , this turning of the switch-handle causes the said block c^3 to bend the bearing end d of the piece D and its attached parts into the position indicated in dotted lines in Fig. 1. It will be noted that this bending action takes place in the overhung portion of the piece D, the spring action of this piece tending always through the spindle c^2 to press the block c^3 against the contact-piece b . This is in addition to the pressure exerted by the spring contact-piece d' on the block c^3 , and by it the said block is enabled to adjust itself between the piece d' and the contact D, while good electrical contact is assured by the spring action of the piece d , thus effectually taking up any wear of the parts.

I claim as my invention—

1. In an electric switch, the combination of a body of insulating material, a rotatable spindle carrying a contact-piece, contact-plates between which the contact-piece is constructed to form electrical connection when the spindle is rotated, with yielding means supporting one end of the spindle independently of the said contact-piece, substantially as described.

2. In a socket for an incandescent lamp, the combination of a body of insulating material, bearings thereon, a rotatable spindle supported in said bearings, a contact-piece on the spindle, a contact-plate on the body and a spring normally pressing the contact-piece toward the said contact-plate, one of the bearings of said spindle being constructed to yield when

the spindle is rotated to place the contact-piece between the spring and the contact-plate, thereby allowing said piece to adjust itself between said spring and said plate, substantially as described.

3. In a socket for an incandescent lamp, the combination of a body of insulating material, a rigid bearing and an overhung bearing of spring material thereon, a spindle rotatable in said bearing, a contact-piece on the spindle, a fixed and a yielding contact-plate also on the body placed so as to be electrically connected by the contact-piece when the spindle is rotated, the overhung bearing allowing the spindle with said contact-piece freedom to adjust itself between said contact-plates, substantially as described.

4. The combination of a body of insulating material, a rigid bearing thereon, a second bearing connected to the same and overhung beyond its point of attachment thereto, a spindle constructed to fit said bearings and carrying a contact-piece, a rigid contact-plate, and a spring-yielding contact-plate, the overhung bearing being constructed to yield and allow the said contact-piece to adjust itself between the fixed and the yielding contact-plates, substantially as described.

5. The combination in an electric switch, of a body of insulating material, a fixed and a yielding contact-plate supported thereon, a rotatable spindle carrying a contact-piece, with means independent of said contact-plates for pressing the contact-piece on the spindle against the fixed contact, substantially as described.

6. The combination of a shell having in it bayonet-joint openings, a cap fitting outside said shell carrying inwardly-projecting pins constructed to enter said openings, a screw movable through a threaded opening in the cap, said shell having in it a hole placed to register with said threaded opening in the cap when the pins are entered in the bayonet-joints, thereby permitting said screw to pass through and lock the shell and cap together, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY T. PAISTE.

Witnesses:

WILLIAM E. BRADLEY,
H. HAYES AIKENS.