

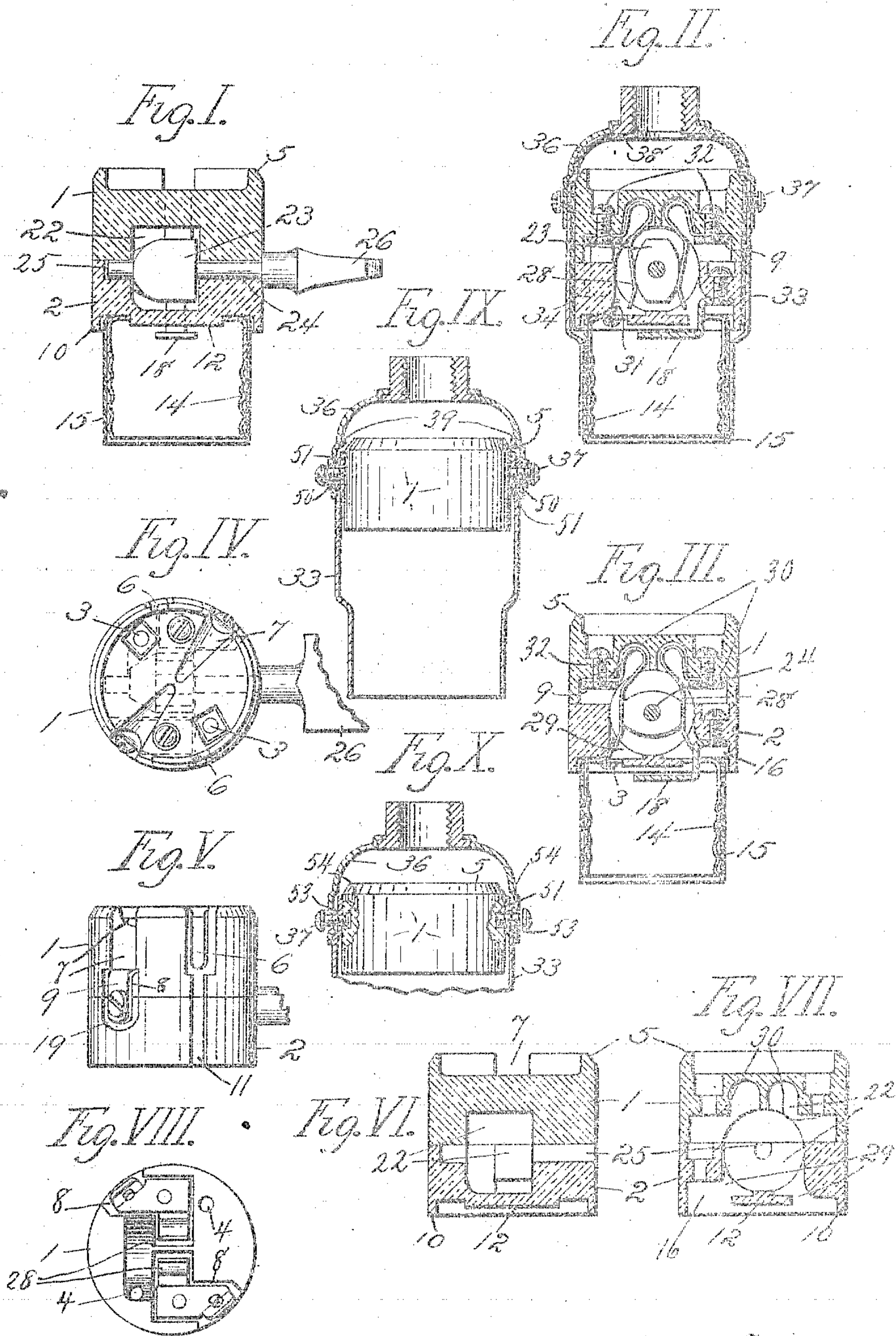
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A. P. SEYMOUR.

SOCKET FOR INCANDESCENT ELECTRIC LAMPS.

APPLICATION FILED JAN. 30, 1905.



Witnesses

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SOCKET FOR INCANDESCENT ELECTRIC LAMPS.

No. 811,253.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT P. SEYMOUR, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Sockets for Incandescent Electric Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to sockets for incandescent electric lamps; and it consists in a particular form of socket that is simple to construct, easy to install, and that fully protects and insulates the various metallic parts.

The essential feature of this invention is the arrangement of the wire terminals on the sides of the insulating-blocks and other changes relating thereto, which are modifications suitable for certain locations of the invention of my Patent No. 719,265, dated January 27, 1903.

My invention will be understood by reference to the drawings herewith, in which the reference-numerals of the specification indicate the corresponding parts in all the figures.

Figure I is a vertical section of my invention. Figs. II and III are similar sections at right angles to the preceding, showing the circuit open in Fig. II and in Fig. III the circuit closed and the inclosing shell and cap removed. Fig. IV is a top plan of Fig. III. Fig. V is an elevation of Fig. III with the lamp-terminals removed. Figs. VI and VII are vertical sections at right angles of the insulating-blocks. Fig. VIII is a bottom plan of the upper block with the metallic terminals and contact-springs in position. Figs. IX and X are longitudinal sections showing different modes of securing the brass shell to the cap to inclose the inner parts.

1 and 2 indicate, respectively, the upper and lower blocks of porcelain or other suitable insulating material secured in contact by any suitable means, as by screws 3 3, arranged in holes 4 4 to support and protect the metallic parts in circuit. The upper block is preferably provided with a margin 5 and formed with the small slots 6 6 to receive the tips of the securing-screws and with wire grooves 7 7 in its upper surface and sides for the conducting-wires connected to binding-

screws on wire terminals 9 9, secured to upper block and arranged in recesses 8 8 therein. These slots 6 6 may be continued through lower block to afford channels 11 for the screw-tips, desirable in some cases and shown in Fig. V. The lower block 2 has the integral margin 10 and central boss 12, forming the annular groove in which is secured by said screws 3 the outer lamp-terminal 14, clamping in place the fiber sleeve 15. The lower block has also the recess 16 for the central lamp-terminal 18 and marginal recesses 19 19 for the ends of the wire terminals 9, which act as guides in the assembling of the parts and maintaining them in position. These blocks have corresponding recesses in their adjacent faces to form the sparking-chamber 22, in which is arranged the cam 23, of porcelain or other insulating material, on spindle 24, journaled in grooves 25 and provided with external thumb-piece 26, by which the contact-springs 28, extending into apertures 29, are forced into engagement, respectively, with central terminal 18 and with tongue 31 on outer terminal 14, whereby the contact is made in both legs of the circuit or is broken by turning the cam to permit the springs to contract. Square shoulders 30 are desirably formed in recesses 8 in the upper block to receive the ends of the contact-springs and the terminals 9, so that the springs are electrically connected to the respective terminals and both secured in position on each side by the single screw 32.

33 is the usual brass shell; 34, the fiber lining thereto; 36, the brass cap secured to the grooves 25 and provided with external thumb-shell by screws 37 or other suitable means and inclosing the fiber cap 38, secured in position by being sprung over lugs 39, inwardly extending in the interior of the cap, or by other suitable means.

In the socket of my said patent the wire terminals are arranged on the upper surface of the upper block within the margin, which made it inconvenient in some situations to connect the wires, as there was not enough finger-room. In my present device these terminals are conveniently arranged on the sides of the porcelain block, so that the brass cap may first be secured in position on the fixture, the wires drawn through the porcelain body, and operative parts then set in po-

sition and the wires conveniently connected to the binding-screws. Finally, the brass shell is set in position and secured to cap by attachment-screws or otherwise.

5 In Fig. IX is shown a means for securing the cap to the shell, consisting of small bushings or eyelets 50, secured in cap 36 and threaded for screws 37, which pass freely through holes in edge of shell made large
10 enough to receive them and enter slots 6 in porcelain. Shell is grooved at 51 to pass over eyelet.

In Fig. X there is no eyelet, but the metal of the cap is inwardly upset at 53 to give
15 slightly-elongated threaded bearings for the screw. The holes in the grooved portions of the shell are large enough for the screws to pass freely, with their tips extending into holes 54 in the upper block, so that by means
20 of the screws there is a more positive securing of the body of the socket within the case than where the screws entered slots like 6.

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

25 1. In an incandescent-lamp socket, the combination with the base composed of two porcelain blocks having cavities on their adjacent surfaces, forming a vertically-elongated sparking-chamber inclosed within the
30 base, and having apertures for the connecting-screws, of lamp-terminals arranged on the lower surface of the lower block, elongated contact-springs arranged in the arcing
35 chamber having upwardly-extending bends and downwardly-extending tips extending into apertures adjacent to the integral contact-pieces, wire terminals secured in recesses on the upper block and extending into recesses
40 on the lower block, means for securing the wires to the wire terminals and for connecting the wire terminals to the respective springs, a rotating shaft journaled between the blocks, a porcelain cam arranged between
45 the springs and loosely mounted on said shaft to be turned thereby, an inclosing case for the base composed of a cap and shell, insulating-linings for the cap and shell, and means to connect the cap to the shell, se-
50 curely to inclose the base.

2. In an incandescent-lamp socket, the combination with a base composed of upper and lower porcelain blocks having corresponding cavities on their juxtaposed sur-
55 faces, forming an arcing chamber, and with apertures for the securing-screws, the upper block being formed with side recesses, shoulders in said recesses and wire grooves in its top and sides communicating with the recesses, and both blocks formed on their outer
60 surfaces with registering, longitudinal channels having enlarged screw-slots at their upper ends, of lamp-terminals secured on the lower surface of the lower block, wire termi-

nals arranged on the shoulders in said side 65 recesses, contact-springs supported on said shoulders and arranged in the arcing chamber with their lower ends extending into apertures adjacent to the respective contact-
70 pieces, screws connecting and securing in position on said shoulders the respective wire terminals and contact-springs, a shaft journaled between the blocks, and a cam of insulating material arranged between the con-
75 tact-springs and loosely mounted on the shaft to be turned thereby.

3. In an electric socket, the combination with a brass cap having in its margin inwardly upset portions provided with threaded bear-
80 ings, of screws fitted to said bearings, a brass shell fitting within the cap margin and provided with inwardly-grooved portions to fit over the bearings and with holes in the grooved portions freely to receive the screws, and of insulating portions arranged within
85 the cap and shell and provided with holes adjacent to their upper margin to receive the screw-tips.

4. An inclosing shell for a device of the character described, having in combination 90 a metallic cap having marginal portions inwardly upset and threaded, of screws fitted thereto, and a metallic shell fitting within the cap and having marginal holes to receive the screw ends. 95

5. In an incandescent-lamp socket, the combination with a base composed of two porcelain blocks, of lamp-terminals on the lower block, wire terminals on the upper
100 block, secured in opposite recesses on the sides thereof and having their tips extending down into registering recesses on the lower block, means to secure the blocks together, a brass cap and a brass shell to inclose the
105 base, screws to secure the cap to the shell, both blocks having on their side faces registering longitudinal channels to receive said screw-tips.

6. In an incandescent-lamp socket, the combination with a base composed of two 110 porcelain blocks, of lamp-terminals on the lower block, wire terminals on the upper block, connections between the respective lamp-terminals and the respective wire terminals, means to secure the blocks together, 115 a metallic cap and a metallic shell to inclose the base, and screws to secure the cap to the shell, both blocks having on their outer edges, registering, longitudinal channels having enlarged screw-slots at their upper ends to re- 120 ceive the tips of said screws.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT P. SEYMOUR.

Witnesses:

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