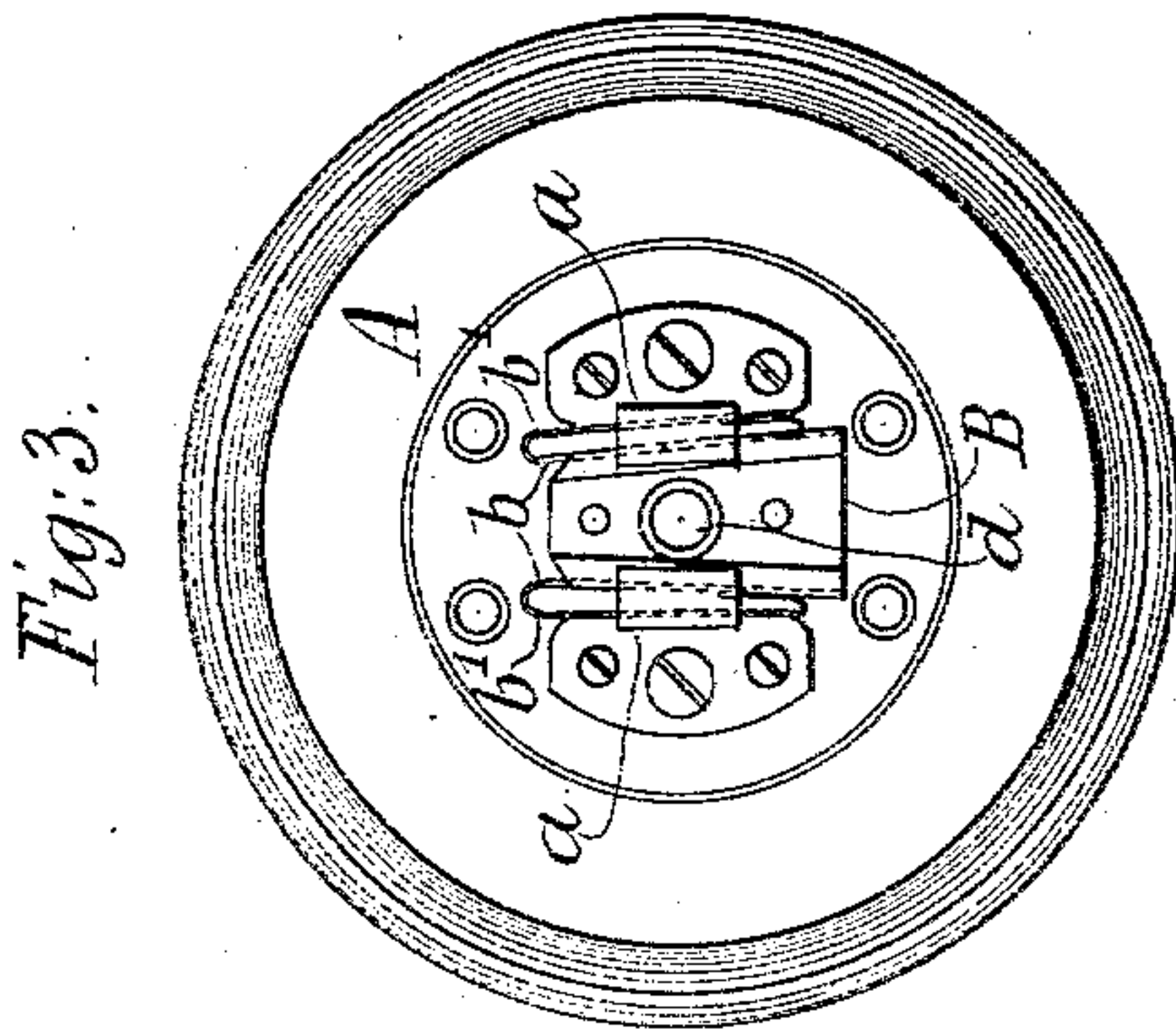
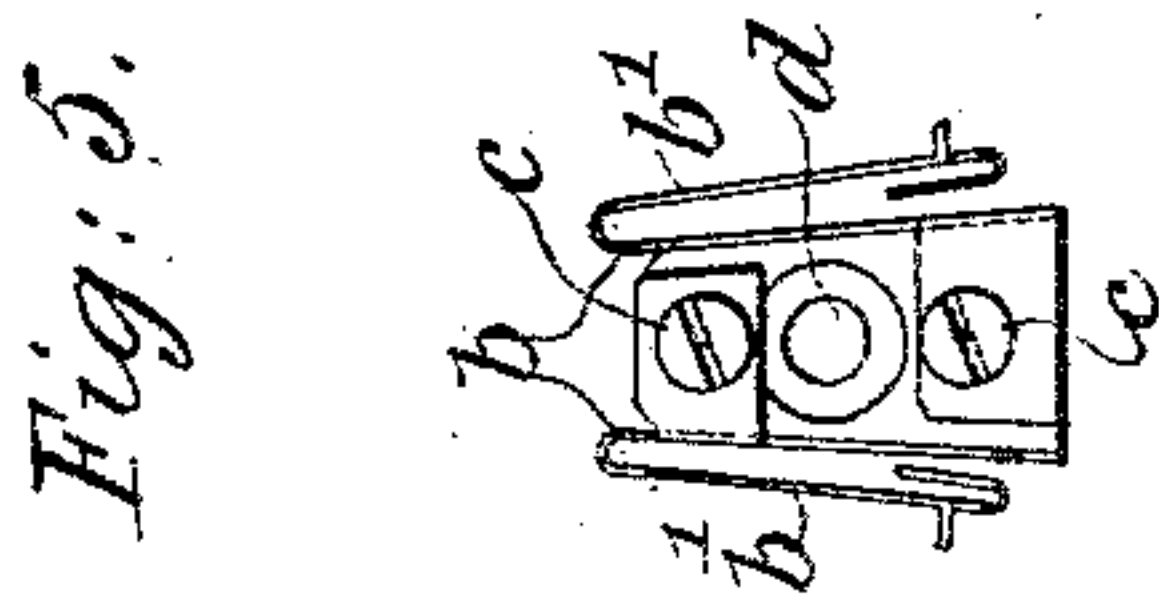
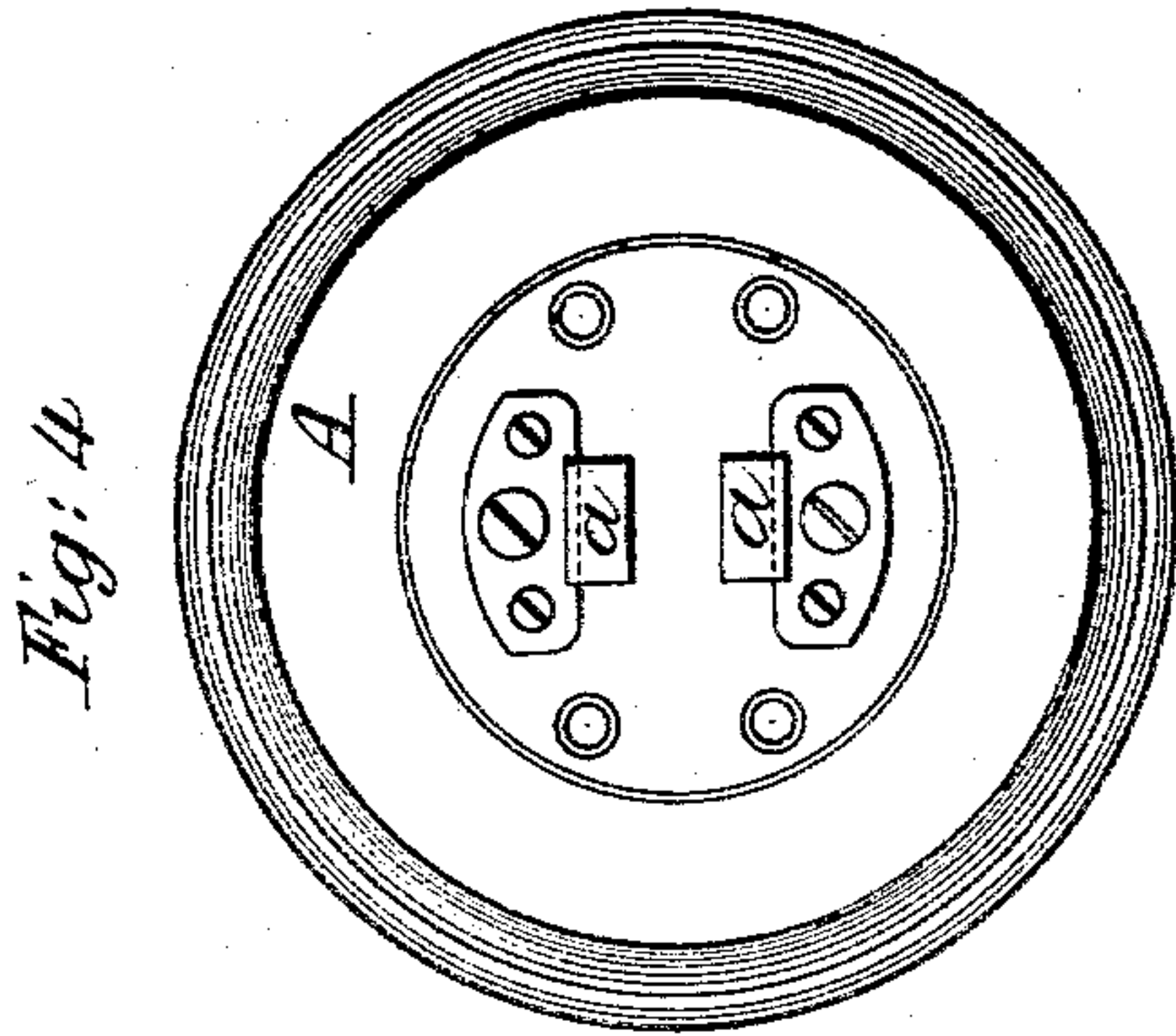
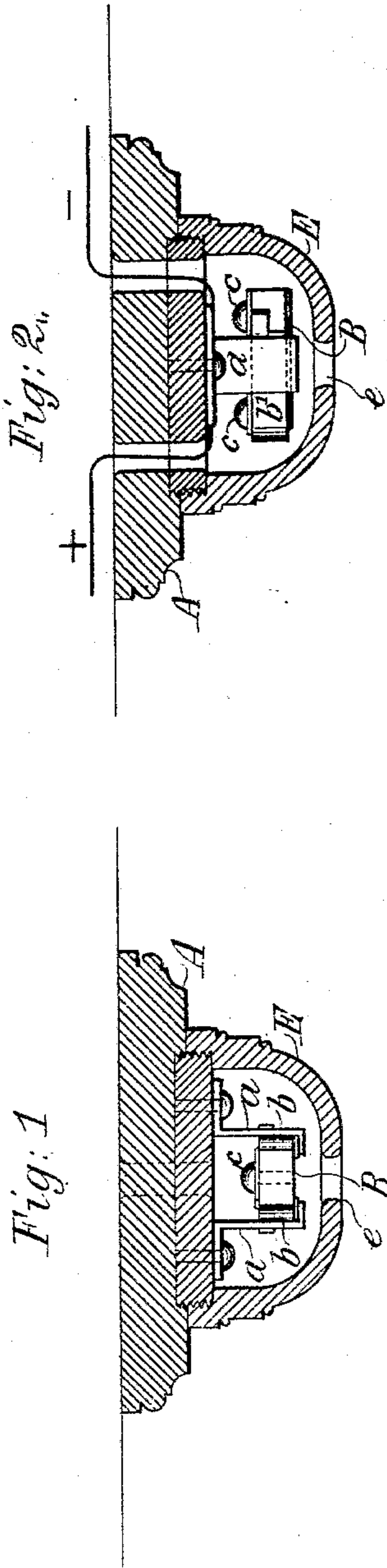


(No Model.)

T. T. SMITH.
ELECTRIC COUPLING.

No. 315,673.

Patented Apr. 14, 1885.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS TAYLER SMITH, OF FINSBURY, LONDON, ENGLAND.

ELECTRIC COUPLING.

SPECIFICATION forming part of Letters Patent No. 315,673, dated April 14, 1885.

Application filed October 17, 1884. (No model.) Patented in England August 31, 1882, No. 4,162.

To all whom it may concern:

Be it known that I, THOMAS TAYLER SMITH, of 4 Circus Place, Finsbury, in the city of London, architect, have invented an Improved Electric Coupling, of which the following is a specification.

This invention relates to an improved construction of ceiling-connector or detachable coupling for electric lamps. It is more particularly adapted for use in combination with electric lamps supported by a flexible cord containing both the flow and return wires suitably insulated.

In the accompanying drawings, Figures 1 and 2 are cross-sections of the coupling, taken at right angles to one another. Fig. 3 is an inverted plan view of the coupling, showing the detachable parts in position. Fig. 4 is an inverted plan view of the fixed portion of the ceiling-connector, the detachable portion thereof being removed; and Fig. 5 is a plan of the said detachable portion.

The same letters of reference indicate similar parts in all the figures.

The ceiling-connector may be briefly described as consisting of a block or rose, A, of porcelain, wood, or other non-conducting material, adapted to be secured to the ceiling or other point of attachment, on which insulating-block are mounted a pair of metal cheeks, *a a*, bent, flanged, grooved, or otherwise adapted to receive and support a detachable block or carriage, B, which is fitted with a pair of metallic cheeks, *b b*, or side pieces insulated the one from the other by vulcanite or an equivalent insulator. These insulated metal side pieces, *b b*, are formed to engage or interlock with the insulated metal cheeks *a a*, and means are provided for insuring the proper engagement of the parts and for locking them in place to prevent accidental displacement or tampering. The rose or block A has holes through it, so that the overhead main or branch wires may be electrically connected by binding-screws or their equivalent with the metal cheeks *a a*, and the carriage B is pierced with a hole or holes for the passage of the end of the flexible cord, the insulated flow and return wires of which are respectively attached to the insulated side pieces, *b b*. It will thus be seen that by slip-

ping the detachable carriage B into engagement with the fixed metal cheeks *a a* the wires in the said cord may be brought into electric connection with the fixed overhead main or branch wires and a passage for the current opened to the lamp or lamps attached to the wires of the said cord or other support for the lamp. The metal cheeks *a a* are preferably of the shape shown in Fig. 1, having broad portions affording a basis of attachment to their insulating-plate, and end portions bent so as to be parallel to the bases and uphold the carriage B when inserted or slid horizontally between the cheeks. The said parallel portions may be turned inward or outward to suit the shape of the carriage. The side pieces, *b b*, on the carriage B may be of solid metal of L shape, their bent portions *b' b'* being so arranged as to interlock with the bent ends of the cheeks *a a*; but I preferably construct these side pieces of thin sheet metal stamped out and bent so as to form upon each a basis of attachment to the insulating block or body of the carriage B, and also a spring portion or tongue of metal, affording tight metallic contact when inserted between the cheeks *a a*. A detachable carriage thus constructed is shown in Figs. 1, 2, and 3 in position, and in Fig. 5 detached. The body of the carriage B may be of any suitable material, so long as the side pieces, *b b*, mounted thereon, are properly insulated. The side pieces, *b b*, are screwed to the body of the carriage B, and for additional security have portions bent over, so as to clip the said body at its top and bottom edges. Binding-screws *c c* are inserted through one of the bent portions of each side piece, and serve to clamp the exposed ends of the copper strands forming the flow and return wires to their respective side pieces, *b b*.

d is the hole through which the flexible cord containing both the said flow and return wires, suitably insulated, passes, and within which it is secured by a knot, for which purpose the said hole is preferably enlarged on one side, as shown in Fig. 5.

The tongues of metal *b' b'*, forming part of the side pieces, *b b*, are preferably doubly bent, as shown, to afford a great degree of flexibility in a small compass, and a portion of the said

tongues is bent at right angles to form a stop for the carriage when inserted or slid laterally or endwise between the retaining-cheeks *a a*.

E is a screw-cap serving as a guard to protect the terminals *a a* against accidental touch. This screw-cap guard has a hole, *e*, through its center, to admit the flexible cord or conductor, and when screwed onto the ceiling-plate *A* the coupling cannot be jerked out of place or tampered with.

I claim as my invention—

1. The combination, with a screw-threaded and perforated ceiling plate or rose *A*, fixed main or branch wires leading therefrom, and insulated terminals *a a*, mounted on said plate or rose, of a detachable carriage, *B*, pierced to admit a single flexible cord containing the separately-insulated flow and return wires, and fitted with insulated terminals *b b*, connected, respectively, with the said flow and return wires, and adapted to be supported by the said terminals *a* in electric contact therewith, thereby attaching the carriage to the ceiling-plate, and an independent centrally-perforated screw-cap, *E*, adapted to be put in place after such attachment for preserving the contacts from sight, touch, and displacement, all substantially as herein described.

2. The combination, with a perforated ceiling-plate or insulating-block, *A*, a pair of metal cheeks, *a a*, having bent ends, fixed conducting-wires connecting, respectively, to said metal cheeks, and a flexible cord or lamp-support containing both the flow and return wires,

suitably insulated, of a detachable coupling block or carriage, *B*, having insulated metallic side pieces, *b b*, adapted to be slid laterally between and rest upon the bent ends of the said cheeks *a a*, and a perforated screw cap or guard, such as *E*, fitting onto the said block *A*, for preventing the accidental displacement of the detachable part of said coupling, or the accidental touching of the fixed terminals *a a*, as set forth.

3. In an electric ceiling connector or coupling, the combination, with the main or branch wires and a pair of insulated fixed metal terminals, *a a*, of a sliding block or carriage, *B*, pierced to admit the wires leading to and from a lamp or lamps, and having insulated metal side pieces, *b b*, bent so as to form spring-tongues *b' b'*, and a stop or stops limiting the movement of the sliding block or carriage in one direction, and determining its proper position with respect to the said terminals *a a*, substantially as set forth.

4. The combination, in an electric coupling, of the perforated plate or rose *A*, insulated terminals *a a*, perforated sliding block or carriage *B*, insulated side pieces, *b b*, having bent portions *b' b'*, and a screw cap or guard, *E*, substantially as and for the purpose specified.

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