No. 756,050. PATENTED MAR. 29, 1904.

C. M. PITEL.

COUPLING FOR INCANDESCENT ELECTRIC HANGING OR SUSPENSION LAMPS.

APPLICATION FILED NOV. 23, 1903.

NO MODEL.

Fig. 1

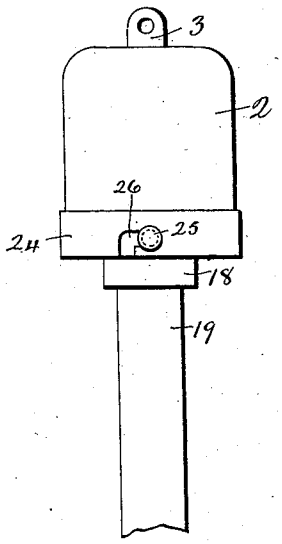


Fig. 2

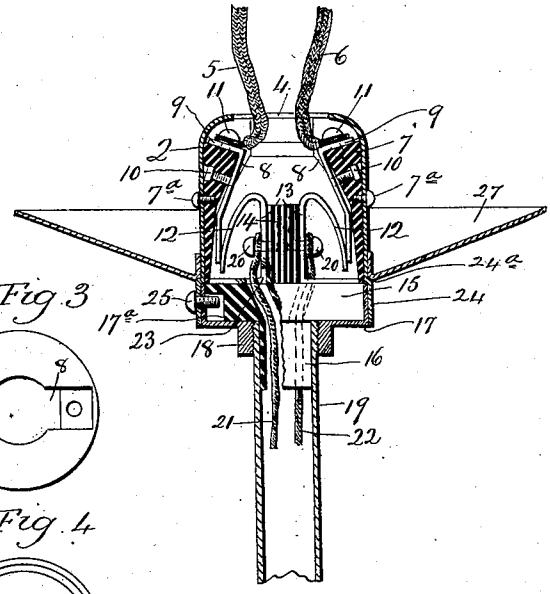


Fig. 3

Fig. 4

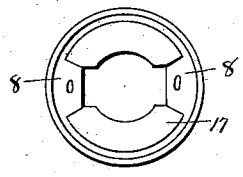


Fig. 5

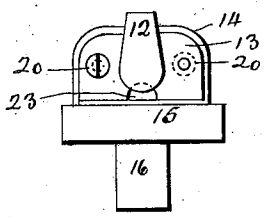


Fig. 6

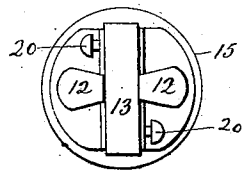


Fig. 7

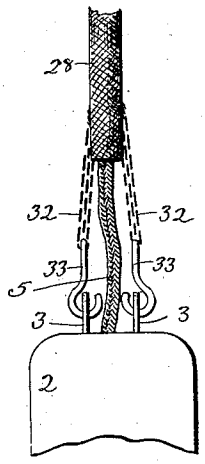


Fig. 8.

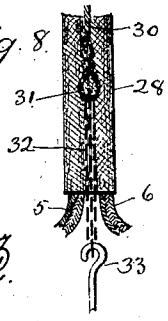
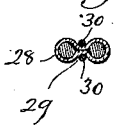


Fig. 9



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No. 756,050. Patented March 29, 1904.

UNITED STATES PATENT OFFICE.

CONRAD M. PITEL, OF MERIDEN, CONNECTICUT.

COUPLING FOR INCANDESCENT ELECTRIC HANGING OR SUSPENSION LAMPS.

SPECIFICATION forming part of Letters Patent No. 756,050, dated March 29, 1904.

Application filed November 23, 1903. Serial No. 182,255. (No model.)

To all whom it may concern:

Be it known that I, CONRAD M. PITEL, of Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Couplers for Incandescent Electric Hanging or Suspension Lamps; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the figures of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a broken view, in side elevation, of a coupler for hanging incandescent-electric-lamp fixtures embodying my invention; Fig. 2, a view thereof in vertical section; Fig. 3, a plan view of the insulating-cup of the coupler stripped of all of its parts; Fig. 4, a corresponding reverse plan view thereof; Fig. 5, a view in side elevation of the insulating-head, showing one of the contact-plates applied thereto; Fig. 6, a plan view of the insulating-head, showing both of the contact-plates; Fig. 7, a broken edge view showing the suspension-wires combined with the compound cable containing the feed-wires so as to take the strain from the latter; Fig. 8, a broken view, in front elevation, of the compound cable; Fig. 9, a view of the cable in transverse section.

My invention relates to an improvement in couplers for incandescent electric hanging or suspension lamps, the object being to provide a simple, compact, and reliable coupling device for such lamps.

With these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and particularly described in the claims.

In carrying out my invention as herein shown I employ an inverted-cup-like shell 2, made of sheet metal and furnished at its upper end with perforated suspension-lugs 3 and formed between the same with a slot 4 for the entrance into the shell of the feed-wires 5 and 6. Within the said shell I locate an inverted cup 7, made of porcelain, wood, rubber, or other equivalent insulating material and having its upper end rounded to conform to the rounded form of the upper end of the shell, in which it is secured by two screws 7^a. This insulating-cup is formed on the inside with two oppositely-located recesses 8, receiving contact-springs 9, secured in place by screws 10. Binding-screws 11, passing through the outwardly-turned upper ends of these springs and into the cup, are provided for the attachment of the wires 5 and 6. The lower ends of the contact-springs 9, which clear the bottoms of the recesses 8, so as to be yielding therein, are engaged by yielding contact-fingers 12, made integral with plates 13, secured to the opposite faces of a thick upright arm 14, made of insulating material—such as porcelain, rubber, or wood—and formed integral with a disk-shaped insulating-head 15, having a hollow stem 16, the said head being located in a shallow sheet-metal cup 17, formed with a collar 18, having internal threads for the reception of the screw-threaded upper end of the service-tube 19 of the lamp-fixture. Binding-screws 20, entering the plates 13, are provided for the attachment of feed-wires 21 and 22, which lead downward through the said tube and supply the current to the lights, the said wires passing through openings 23, formed in the plates 13. The shallow cup 17 is adapted to fit snugly within an offsetting flange 24, located at the lower end of the shell 2, and for the purpose of securing it in place therein I provide it with two retaining-screws 25, arranged to enter bayonet-slots 26, formed in the said flange 24. The said screws 25 enter slots 17^a in the head 15 and prevent the same from turning in the cup 17, as shown in Fig. 2. The screws 25 and slots 26 are so related to the contact-fingers 12 and the lower ends of the contact-springs 9 that when the cup is rotated to enter the screws 25 into the horizontal portions of the bayonet-slots 26 the said fingers 12 will be brought into full flatwise contact with the lower ends of the springs 9; but it will of course be understood that the current begins to flow just as soon as the fingers 12 first strike the edges of the springs 9. In order, therefore, to couple the service-tube 19 with that portion of the fixture suspended from the ceiling, it is only necessary to insert the shallow

cup 17 within the flange 24 and turn the shallow cup as far as required to move the screws 25 into the horizontal portions of the bayonet-slots 26. Then to remove the service-tube, and hence the cup 17, the same is rotated correspondingly in the opposite direction, whereby the screws 25 are moved in the slots 26, so as to permit the cup 17 to be drawn away from the inverted cup 7, which breaks all contact between the springs 9 and fingers 12. A canopy 27, applied to the shell 2 so as to rest upon the shoulder 24[a] at the upper edge of the flange 24, deflects the heat of the lamps below from the feed-wires 5 and 6 and improves the looks of the device. These feed-wires are inclosed in a braided covering 28, which is stitched together between the two wires, so as to form, as it were, oppositely-located grooves 29, receiving suspension-wires 30, which may be single strands of wire or bundles of fine wires, like wire picture-cord. The lower ends of the suspension-wires 30 are bent to form loops 31 for the attachment of short chains 32, furnished at their lower ends with hooks 33, which are hooked into the perforated suspension-lugs 3. It will be readily understood that under this construction the feed-wires 5 and 6 are not only protected by the braided covering 28, but also that they are relieved from all of the weight of the fixture, which is entirely borne by the suspension-wires 30 and their attached chains 32 and hooks 33.

It is apparent in carrying out my invention that some changes in the construction herein shown and described may be made. I therefore do not wish to be understood as limiting myself to such construction, but hold myself at liberty to make such changes therein as fairly fall within the spirit and scope of my invention.

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

1. In a coupler for hanging incandescent-lamp fixtures, the combination with an inverted-cup-like shell, of an inverted insulating-cup located therein, contact-springs located opposite each other in the said cup, feed-wires leading to the said springs through the upper ends of the shell and cup, a service-tube, a shallow cup located at the upper end thereof and adapted to be removably attached to the lower end of the said shell, an insulating-head located within the shallow cup and formed with an upright arm, contact-plates located on the opposite sides of the said arm and provided with spring-fingers which coact with the lower ends of the contact-springs in the insulating-cup, feed-wires connected with the said plates and leading downward through the said head into the said tube, and fastening means for connecting the shell and shallow cup.

2. In a coupler for hanging incandescent-lamp fixtures, the combination with the shell, of an insulating-cup located therein, a shallow cup, a service-tube depending therefrom, an insulating-head located in the shallow cup and formed with a hollow tube entering the said service-tube, and contact means respectively carried by the insulating cup and head and brought into contact when the shallow cup is connected with the said shell.

3. In a coupler for hanging incandescent-lamp fixtures, the combination with an inverted-cup-like shell, of an inverted insulating-cup located therein, a shallow cup adapted to be applied to the lower end of the shell, a service-tube depending from the shallow cup, an insulating-head located in the shallow cup, contact means respectively attached to the said inverted cup and head, brought into contact when the shell and shallow cup are combined, feed-wires leading into the top of the shell, and a canopy applied to the shell and deflecting the heat from the said wires.

4. In a coupler for hanging incandescent-lamp fixtures, the combination with a shell, of an insulating-cup located therein, a shallow cup adapted to be applied to the open end of the shell, an insulating-head located in the shallow cup and provided with an upright arm, contact-springs secured to the inverted insulating-cup and to the opposite faces of the arm of the said insulating-head and arranged to make contact when the shallow cup is combined with the shell, feed-wires leading to the contact-springs and feed-wires leading from the contact-plates attached to the said arm down through the said head.

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

CONRAD M. PITEL.

Witnesses:
JOHN M. KINDER,
JULES KANE.