

A. SCHEIBLE.
HANGER FOR ELECTRICAL APPARATUS.
APPLICATION FILED MAR. 12, 1909.

1,034,518.

Patented Aug. 6, 1912.

Fig. 1.

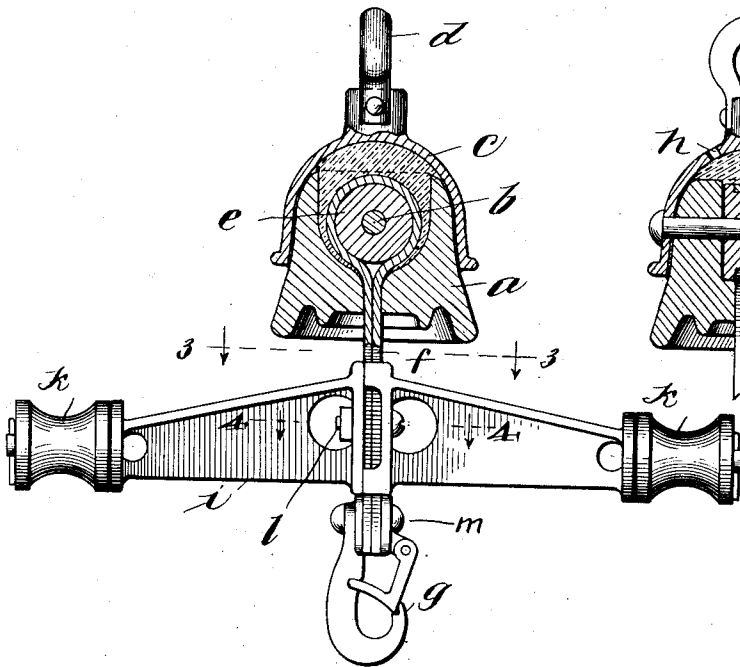


Fig. 2.

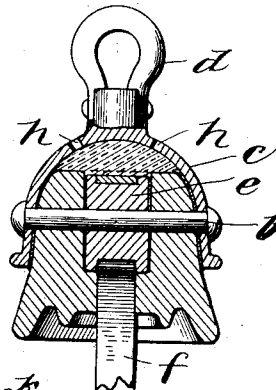


Fig. 3.

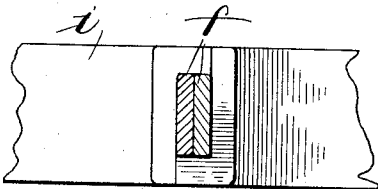
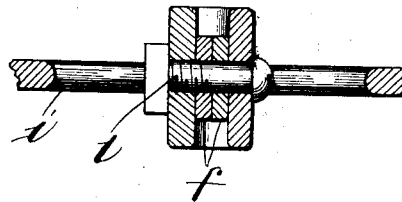


Fig. 4.



Witnesses:

J. W. Pauberschmidt

Z. E. Stroh

Inventor:

Albert Scheible

By *G. K. Cragg* Atty.

UNITED STATES PATENT OFFICE.

ALBERT SCHEIBLE, OF CHICAGO, ILLINOIS.

HANGER FOR ELECTRICAL APPARATUS.

1,034,518.

Specification of Letters Patent.

Patented Aug. 6, 1912.

Application filed March 12, 1909. Serial No. 483,017.

To all whom it may concern:

Be it known that I, ALBERT SCHEIBLE, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Hangers for Electrical Apparatus, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to hangers for electrical apparatus whereby such apparatus may be suspended and properly insulated.

It is one of the objects of my invention to construct a hanger which includes a petticoated insulator normally relieved of the weight of the electrical apparatus, such as an electric lamp, but adapted to take part in the support of such apparatus in the event of breakage of the means that normally supports the apparatus. In practising this feature of my invention, I desirably provide a pocket or recess in the upper portion of the aforesaid insulator and pass a supporting element through said pocket and through the metal cap in which the said insulator is preferably disposed. This supporting element is desirably of composite formation, one portion thereof constituting a pin passing through the cap of the insulator and another portion thereof being desirably in the form of a grooved disk having a bore through which said pin passes. A metal member engages the aforesaid disk by surrounding or partially surrounding the same, this member carrying an additional structure, such as a hook, that is adapted to carry the lamp or other device.

The disk is also of insulating material, said disk and insulator being desirably, though not necessarily, made of porcelain. There is sufficient clearance between the walls of the pocket of the insulator and the metal parts surrounding or partially surrounding the disk whereby said insulator is normally relieved of weight which is borne by the disk and the pin engaged by the disk, and therefore by the cap which is suspended from some suitable supporting means, as, for example, a hoisting rope. Should the insulating disk or block be broken, the metal member surrounding the same will be engaged by the walls of the pocket or

chamber of the insulator, which walls will then support the metal member independently of the said disk or block.

Another feature of my invention resides in the provision of an improved cross-arm construction whereby line wires that supply current to the suspended electrical apparatus are properly insulated from each other and properly spaced apart. In practising this feature of my invention, I employ a strip of metal, preferably steel, which is bent at its mid portion to constitute a substantially circular loop which incloses the aforesaid disk, the ends of the loop being bolted together and there secured to some suitable device, as a hook, whereby the lamp or other structure may be supported. I secure two arms to the folded metal strip by means of a bolt passing through adjacent ends of the arms, between which the metal strip is disposed, and preferably through said metal strip also. The inner ends of the arms are preferably of L-shape in plan view, the short stem of the L of one arm being opposite the short stem of the L of the other arm, the short stems of the L's having butt engagement with the long stems of the L's, whereby a rectangular channel is formed between the adjacent ends of the arms of a size suited to the metal strip passing between the ends of the arms. The outer ends of the arms carry suitable insulators for the line wires.

I will explain my invention more fully by reference to the accompanying drawing, showing the preferred embodiment thereof, in which—

Figure 1 is a sectional view, partially in elevation, of a device constructed in accordance with the preferred embodiment of the invention. Fig. 2 is a sectional view of the upper portion of the structure shown in Fig. 1, taken at right-angles to the direction in which Fig. 1 is taken. Fig. 3 is a sectional view on line 3 3 of Fig. 1. Fig. 4 is a sectional view on line 4 4 of Fig. 1.

Like parts are indicated by similar characters of reference throughout the different figures.

The petticoated insulator *a* is supported by a pin *b* passing through the metal cap *c* which is provided with any suitable formation, such as the eye *d*, whereby the cap and the parts it supports may be suitably sus-

pendent. The petticoated insulator *a* desirably extends well up into the cap, and in such event has a pocket in its upper portion into which a disk of insulating material *e* may be slipped, this disk having a bore through which the pin *b* may be slipped. A supporting member *f*, preferably in the form of strip metal, desirably substantially completely surrounds the disk *e* and extends through a channel in the insulator *a* lying below the pin *b*. The member *f* supports some suitable means, such as the hook *g* from which the arc lamp or other apparatus may be suspended, the attachment of this hook, in accordance with the preferred embodiment of the invention, being herein-after explained.

In assembling the parts, the free ends of the metal strip *f* (which are then free of the devices *g* and the other structural parts illustrated at the bottom of the element *f*) are temporarily clamped together, there being normally preferably a tendency for these free ends to swing apart, the disk *e* first having been surrounded by the metal strip, whereafter the free ends of the metal strip are passed downwardly through the insulator *a* until the bore in the disk *e* is brought into alinement with the holes in the cap *c* that are to receive the pin *b*, whereupon the pin *b* is passed through the cap *c*, the insulator *a* and the disk *e*, so that the parts are thereupon secured together. The ends of the pin *b* may be elevated or upset so as to prevent said pin from moving longitudinally after it is in place. The arrangement of the parts is such that the insulator *a* is normally relieved of any of the load which the device is designed to support, there normally being sufficient clearance between the supporting element *f* and the insulator *a* to cause all of the load to be carried by the element *f*, the disk *e*, the pin *b* and the cap *c*. After the parts have been assembled as has been stated, insulating wax, such as ozocerite, is poured through the cap at the openings *h*, so as to fill the spaces intervening between the cap *c* and the insulator *a* and intervening between the insulator *a* and the elements *e* and *f*, for the purpose of excluding moisture from the parts within the cap. By providing clearance between the disk *e* and the insulator *a* around said disk, the wax may find its way well about the parts *e* and *f* so as more thoroughly to protect the parts within the cap against the entrance of moisture, which would be liable to cause a path of leakage for currents.

If the element *e* should become broken, for example, as a result of a lightning discharge, the circular portion of the element *f*, being larger than the passage in the insulator *a* through which the element *f* is passed downwardly, said element *a* is en-

abled to support the suspended load upon the breakage of the disk *e*.

The element *f* constitutes a vertical stem from which arms *i i* laterally extend, the outer ends of these arms supporting suitable insulators *k* of any preferred or suitable type, for holding line wires. The inner ends of the arms *i i* are preferably each L-shaped in plan view and are similarly formed, so that when a pair of the arms are assembled in reversed relation, the stems of the L formations are engaged with each other, the shorter stems with the longer, so as to form a rectangular vertical channel through which the element *f* passes, a single bolt *l* being sufficient, when passed through the element *f* and the inner ends of the arms *i*, to hold said arms and the element or stem *f* in fixed relation. The bolt *l* also serves to clamp the parallel strip portions constituting the element *f* together, so as to relieve the insulator *a* of the stress it would otherwise be subject to if the insulator were relied upon to compress these strip portions together. The element *f* may, if desired, be extended below the arms *i*, in which case another bolt *m* may be employed for further clamping the strip portions of the element *f* together, this bolt *m*, in the embodiment of the invention shown, passing through the hook structure *g*, whose purpose has been stated.

While I have herein shown and particularly described the preferred embodiment of my invention, I do not wish to be limited to the precise construction shown, as changes may readily be made without departing from the spirit of my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent the following:—

1. A hanger including an insulator having a depending petticoat and a perforation substantially co-axial with said petticoat, said perforation being enlarged into a chamber at the upper end of the insulator; a cap covering the chambered end of the insulator; a substantially horizontal pin passing through said cap and insulator; an insulating block upon said pin within said chamber; and a supporting element normally carried by said insulating block, and being larger where it engages the block than the unenlarged portion of the perforation above which unenlarged perforation portion said block is disposed, whereby the supporting element is held upon breakage of the said block.

2. A hanger including a cap; a substantially horizontal pin passing through said cap; a petticoated insulator carried by said pin and having a perforation substantially co-axial with the petticoat of the insulator, said perforation being enlarged into a chamber at the upper end of the insulator; an

insulating block normally carried by said
pin within the said chamber; and a support-
ing member surrounding said block, and
projecting through the unenlarged portion
5 of the perforation in the insulator, whereby
the supporting member is held upon break-
age of the block.

In witness whereof, I hereunto subscribe
my name this tenth day of March A. D.,
1909.

ALBERT SCHEIBLE.

Witnesses:

L. G. STROH,
G. L. CRAGG.