

C. K. KING.  
FEEDER WIRE INSULATOR.

(Application filed Dec. 10, 1900.)

(No Model.)

Fig. 1.

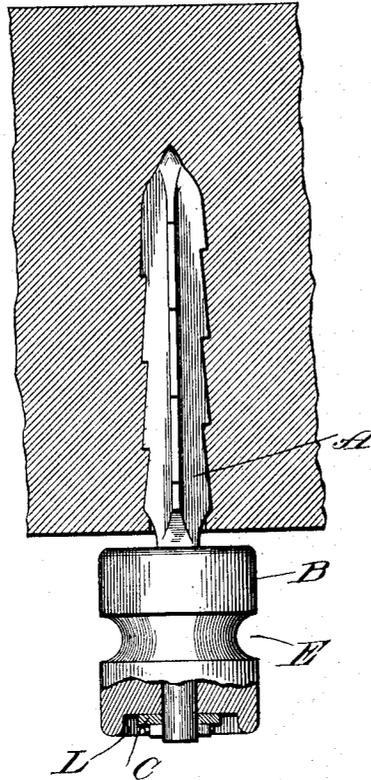


Fig. 2.

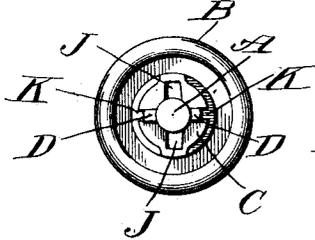


Fig. 4.

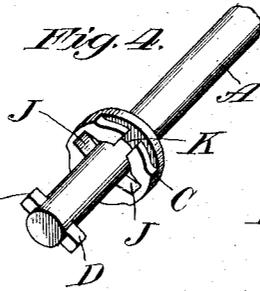


Fig. 3.

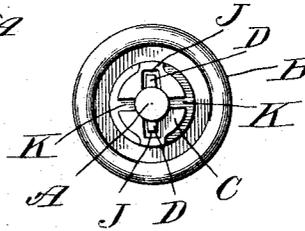
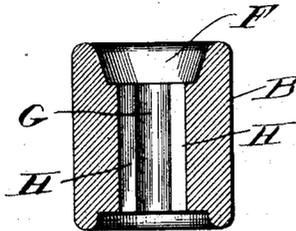


Fig. 5.



Witnesses:  
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*Ira D. Perry*

Inventor:  
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 By *Mason & Hart*  
*Attys.*

# UNITED STATES PATENT OFFICE.

CHARLES K. KING, OF MANSFIELD, OHIO.

## FEEDER-WIRE INSULATOR.

SPECIFICATION forming part of Letters Patent No. 667,882, dated February 12, 1901.

Application filed December 10, 1900. Serial No. 39,354. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES K. KING, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented a new and useful Feeder-Wire Insulator, of which the following is a specification.

This invention relates to feeder-wire insulators.

The object of the invention is to provide a simple and efficient construction of insulator for feeder or other electric wires.

The invention consists, substantially, in the construction, combination, location, and arrangement, all as will be more fully hereinafter set forth, as shown in the accompanying drawings, and finally pointed out in the appended claims.

Referring to the accompanying drawings and to the various views and reference-signs appearing thereon, Figure 1 is a view, partly in section, of a feeder or other electric wire insulator constructed in accordance with the principles of my invention and showing the parts in assembled relation. Fig. 2 is an end view showing the insulator-supporting pin and locking-washer in locked relation. Fig. 3 is a similar view showing the pin and locking-washer in unlocked relation. Fig. 4 is a broken detail view in perspective of the pin and locking-washer. Fig. 5 is a central longitudinal section through the insulator.

The same part is designated by the same reference-sign wherever it occurs.

Reference-sign A designates the pin, B the insulator, and C the locking-washer.

The pin A is preferably fluted, barbed, and pointed at one end thereof, as clearly shown in Fig. 1, thereby enabling the same to be easily driven in place and to secure a firm anchorage in the side wall, roof, or other convenient support in a mine or other locality where the use thereof may be desired. The other end of pin A is suitably formed or shaped to facilitate the placing of the insulator B thereon. In the particular form shown, to which, however, my invention is not limited, said end is made cylindrical and at the extremity thereof is provided with one or more lugs D.

The insulator B may be of any suitable in-

ulating material, highly-vitrified porcelain being preferable, by reason of its strength and toughness and of its being absolutely impervious to moisture. This insulator should be of sufficient size to prevent surface leakage of current from the wire to be supported thereon to the supporting-pin A. If desired, the insulator may be provided with a peripheral groove E to receive and securely hold in place and support the wire to be supported and insulated. At one end of the insulator is provided a countersunk recess or seat, (indicated at F), the function of which is to receive any moisture or dripping running down pin A, thereby preventing such moisture from reaching or accumulating upon the wire supported by the insulator. The insulator is provided with a central longitudinal bore or opening G therethrough, adapted to receive the end of the pin A. One or more longitudinal passages H may also be provided with an opening into the central bore G to permit the passage of the lug or lugs D on the end of pin A. These passages and also the central bore G have a passage-way for any dripping or moisture which may collect in the seat or recess F of the insulator, whereby such moisture or drippings may be carried off and away from the wire supported by the insulator.

The locking-washer C is provided with a central opening therethrough, so as to enable the same to be strung upon the pin A. Said washer is also provided with one or more openings or passages J therethrough to permit the passage therethrough of the lug or lugs D on the end of pin A. Said washer is also provided with one or more seats or depressions K in one of the faces thereof adapted to receive the lug or lugs D of pin A and form a lock therefor. The central bore G and the passage or passages H through the insulator, as well as the central opening through the washer C and the passages J, are somewhat larger than the pin A and lug or lugs D thereon, so as to permit said insulator and washer to be readily strung upon or removed from said pin. The locking-washer is preferably flattened on one of the faces thereof to form a bearing against the end surface of the insulator, the notches or seats K to receive the lug or lugs D being formed in the opposite

face of such washer. If desired, and as shown at L, the end of the insulator against which the locking-washer bears may be somewhat countersunk to receive the washer therein, as clearly shown in Fig. 1.

In operation the pin A is firmly driven into place in the ceiling or side wall of a mine or other place where it is desired to use the support, the locking-washer and insulator having previously been removed therefrom. If desired, a hole may have been previously bored to form an entrance way for the point of the pin; but this feature may be omitted. The insulator B is then replaced upon the shank of the pin, said pin passing through the central bore or opening G in the insulator and the lug or lugs D passing through the passages H. In a similar manner the washer is then strung upon the end of the shank of pin A, the lug or lugs D passing through the passages J in such washer. The washer is then given a turn or rotative displacement upon pin A, so as to bring the seats K therein into registering relation with respect to the lug or lugs D, thereby forming a lock for such washer and a support for the insulator.

From the foregoing description it will be seen that I provide an exceedingly simple and efficient construction of insulated support for feeder or other electric wires, which can be readily and easily detached and removed.

Having now set forth the object and nature of my invention and a construction embodying the principles thereof, what I claim as new and useful and of my own invention, and desire to secure by Letters Patent, is—

1. In a feeder-wire insulator, a pin or support having one or more lugs at the end thereof, an insulator having a central bore to receive said pin therethrough, and one or more passages opening into said bore to permit the passage of said lug or lugs therethrough, and

a washer for retaining said insulator upon said pin, as and for the purpose set forth. 45

2. In a feeder-wire insulator, the combination of a pin, an insulator and a locking-washer, said pin adapted to receive the insulator thereon and provided with one or more lugs, said locking-washer adapted to be received upon said pin and provided with one or more openings to permit of the passage therethrough of the lug or lugs on the end of said pin, and having seats to receive said lug or lugs, as and for the purpose set forth. 55

3. In a feeder-wire insulator, the combination of a pin, an insulator and a locking-washer, said insulator and washer adapted to be received upon said pin, said washer provided with a flat face on one side to form a bearing for said insulator, said pin having one or more lugs and seats formed in the opposite face of said washer to receive said lug or lugs to lock said washer in place, as and for the purpose set forth. 65

4. In a feeder-wire insulator, the combination with a pin, of an insulator adapted to be detachably mounted upon said pin, said insulator provided with a deep countersink or recess in the end thereof to receive moisture or drippings from said pin, and having one or more passages therethrough to conduct such moisture or drippings away from the wire to be supported thereby, as and for the purpose set forth. 75

5. The combination with a pin, an insulator and a locking-washer, all combined and arranged as and for the purpose set forth.

In witness whereof I have hereunto set my hand, this 6th day of December, 1900, in the presence of the subscribing witnesses. 80

CHARLES K. KING.

Witnesses:

A. L. PRICE,

C. N. MANFRED.