No. 814,613. PATENTED MAR. 6, 1906.

F. MacKEAN.

INSULATOR PIN.

APPLICATION FILED FEB. 20, 1905.

Fig. 1.

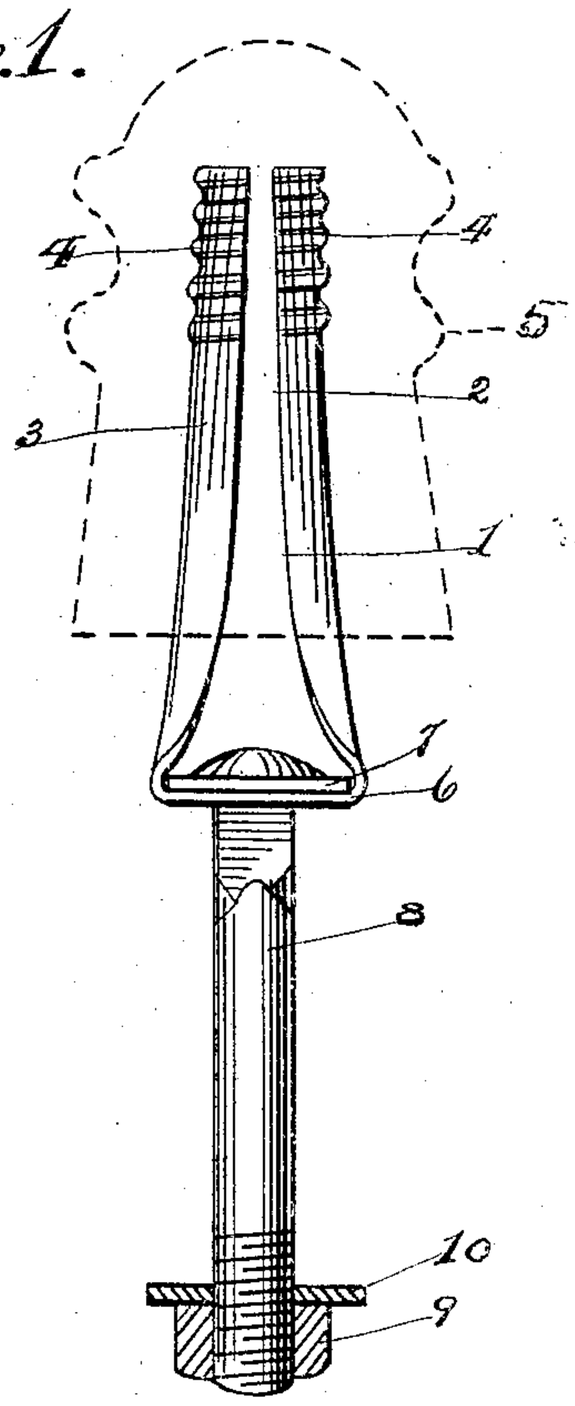
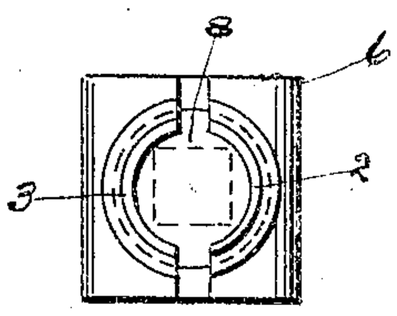


Fig. 2.



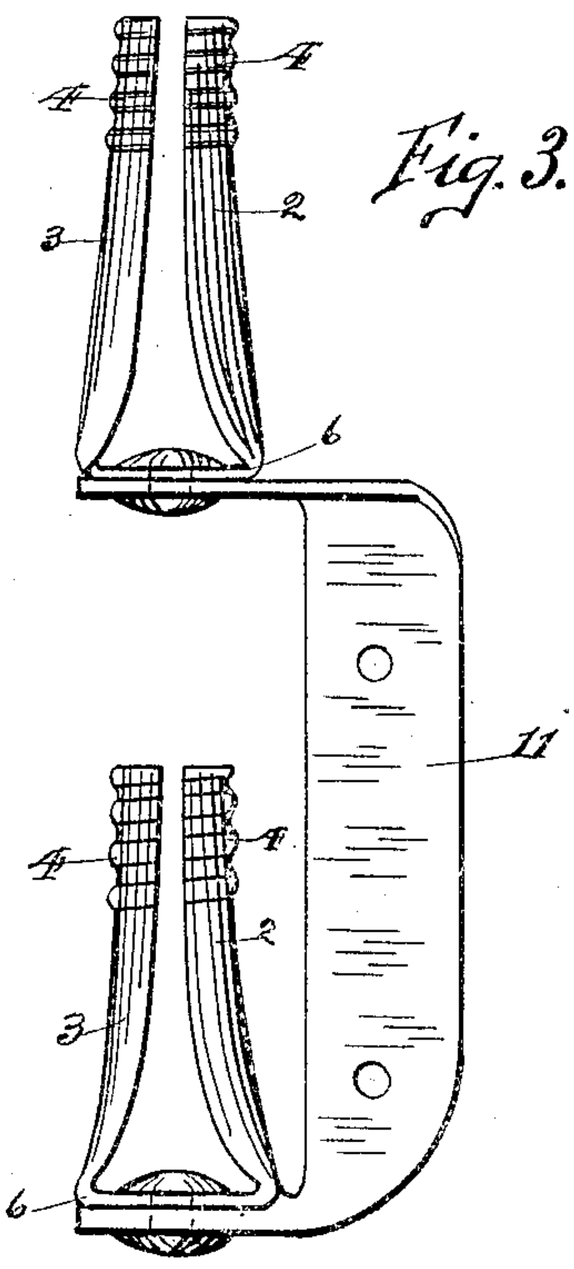


Fig. 3.

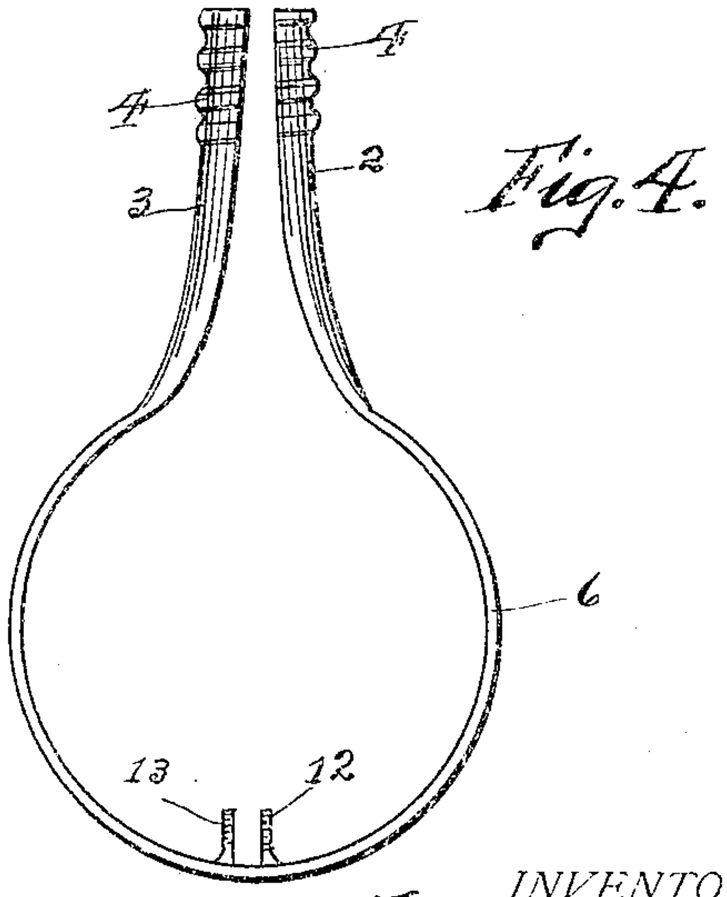


Fig. 4.

WITNESSES:
C. M. Burnam.
J. W. Carroll.

INVENTOR.
Frank MacKean.
BY
Harry Lea Dodson.
ATTORNEY.

UNITED STATES PATENT OFFICE.

FRANK MacKEAN, OF CHICAGO, ILLINOIS.

INSULATOR-PIN.

No. 814,613. Specification of Letters Patent. Patented March 6, 1906.

Application filed February 20, 1905. Serial No. 246,429.

To all whom it may concern:

Be it known that I, FRANK MacKEAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Insulator-Pins, of which the following is a specification.

My invention relates to that class of pins which are used to mount the glass insulators which are used to carry telephone, electric, and telegraph wires. These pins are at the present time generally constructed of wood or of a combination of wood and metal. The wood is of course subject to the stress of the weather and decay and causes considerable trouble for this reason. Attempts have been made to make pins of castings, which attempts, however, have been unsuccessful and have been abandoned, owing to the fact that glass insulators when molded present an irregular surface on their interior, and it has been found necessary to have a surface which would yield and adapt itself to the irregularities of the glass. In the combination of wood and metal pins a metal bolt is used upon which is threaded a hard-wood pin on which is mounted the glass insulator. This pin has this disadvantage: the fact that when it becomes necessary to remove the glass insulator it is generally impossible to remove the wood, the wood unscrewing from the bolt rather than the glass from the wood, so that the insulator is entirely lost, owing to the fact that linemen cannot carry the necessary tools to remove the wood from the glass without breaking the glass.

My invention has for its object to remedy these defects and to produce a pin which will be both elastic and compressible, capable of adapting itself to the irregularities of the glass insulator, and which can be manufactured very inexpensively and which will be of very much greater durability than any of the pins now in use and at the same time will not be affected by the weather.

My method of attaining the foregoing may be more readily understood by having reference to the accompanying drawings, which are hereunto annexed and are a part of this specification, in which—

Figure 1 is an elevation of my improved pin mounted upon a bolt, the glass insulator being indicated by dotted lines. Fig. 2 is a top or plan view of the same. Fig. 3 shows the pin mounted upon a bracket. Fig. 4 shows the pin constructed for use upon a round cross-arm.

Similar figures refer to similar parts throughout the entire description.

In the drawings, 1 is my improved insulator-pin, which is stamped or formed from a strip of metal, the two ends 2 and 3 being pressed in semitubular form and having threads 4 stamped at the ends thereof. These ends are then folded together so as to bring the threaded portions of each to correspond with the other, but leaving an opening between the two to permit them to be squeezed together in the event of the glass insulator 5 (indicated by the dotted lines in Fig. 1) being smaller in diameter than the threads upon the pin. It is obvious that the sides will exert an outward tension which will secure and hold the insulator firmly and rigidly.

In Fig. 1 the loop 6 of the pin is formed into a square and has mounted in its interior a washer 7. A square opening is punched through the loop and the washer, and in this is mounted the square head of a wagon-bolt 8. This bolt is of the usual construction and has a nut 9 and washer 10 mounted upon threads cut upon its lower end, which serve to secure the pin in place upon the cross-arm upon which it is mounted.

In Fig. 3 the pins are shown mounted upon a bracket 11, and in Fig. 4 the loop 6 is circular in form and is adapted to clamp a round cross-arm, it being obvious that when the glass insulator is mounted upon the threads and compresses the two halves 2 and 3 it will cause the loop to clamp the cross-arm firmly. It may be found desirable in practice to upraise projections 12 and 13 and to force them into the wood of the cross-arm where the cross-arm is of wood, or they may be adapted to engage a slot where the cross-arm is of metal.

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

1. An insulator-pin formed from a continuous strip of sheet metal, said strip having threads formed upon the ends thereof, the strip being folded upon itself forming a loop at its lower end, the threads upon the ends being brought into coincidence with each other, the threaded portions of the ends being so shaped as to present a cylindrical

threaded portion upon which the insulator is mounted, for the purpose set forth substantially as described.

2. An insulator-pin formed from a continuous strip of sheet metal, said strip having threads formed upon the ends thereof, the strip being folded upon itself forming a loop at its lower end, said loop being formed with a flat rectangular base adapted to furnish a seat for the pin upon the cross-arm, said base having an opening in its center, a bolt or screw mounted therein to secure the pin to the cross-arm, the threads upon the ends being brought into coincidence with each other, the threaded portions of the ends being so shaped as to present a cylindrical threaded portion upon which the insulator is mounted, for the purpose set forth substantially as described.

3. An insulator-pin formed from a continuous strip of sheet metal, said strip having threads formed upon the ends thereof, the strip being folded upon itself forming a loop at its lower end, said loop being circular in form and engaging a round cross-arm, said pin being held in place by the pressure exerted by the drawing together of the two ends of the metal strip when the insulator is screwed down upon the threaded ends thereof, the threads upon the ends being brought into coincidence with each other, the threaded portions of the ends being so shaped as to present a cylindrical threaded portion upon which the insulator is mounted, for the purpose set forth substantially as described.

FRANK MACKEAN.

Witnesses:
J. H. CARROLL,
C. M. BURNAM.