

W. J. WILSON.
INSULATOR PIN.
APPLICATION FILED OCT. 19, 1910.

1,013,250.

Patented Jan. 2, 1912.

Fig. 1

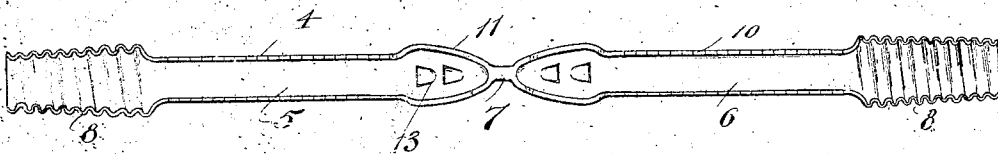


Fig. 2

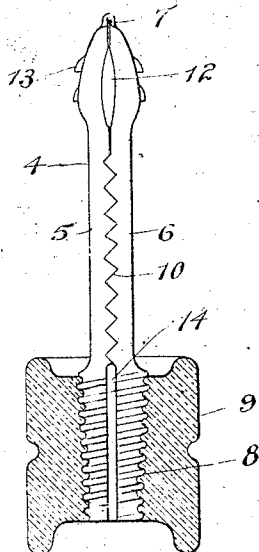
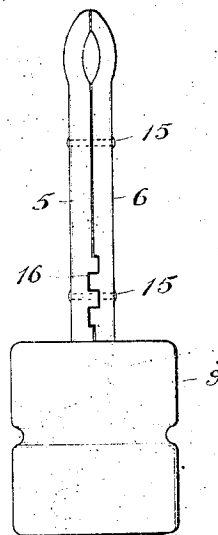


Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

WALTER J. WILSON, OF PITTSBURGH, PENNSYLVANIA.

INSULATOR-PIN.

1,013,250.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WALTER J. WILSON, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Insulator-Pins, of which the following is a specification.

This invention relates to pins or devices which are used in connection with suitable insulators, for supporting electric wires, such for instance as trolley wires, supply wires and telegraph or telephone wires. Although it is intended for general purposes, it is particularly adapted for use in mines wherein certain peculiar conditions are usually met with which differ from those common in ordinary line construction. Its objects are to provide a pin or device of this character, which may be made much more cheaply and rapidly than those heretofore in use, which will not be apt to be broken when being driven into place, which will be sufficiently yielding so as to fit tightly within the hole into which it is driven, and which will have such other advantages as will be fully disclosed hereinafter.

In the accompanying drawings illustrating my invention—Figure 1 illustrates two connected halves of a pin formed of a single strip of metal preparatory to being folded together to make the completed pin; Fig. 2 is a side view of the completed pin, showing an insulator in connection therewith; and Fig. 3 is a view similar to Fig. 2, showing a modified form of construction.

One of the principal features of my invention is the forming of the insulator pin out of material which can be drawn, such for instance as ductile sheet metal, sheet steel, or other suitable material; and in its preferred form I make a split pin in one piece from such ductile sheet metal. For instance, as indicated in Figs. 1 and 2, the pin 4 is made in two halves 5 and 6, preferably in one operation or series of operations as may be necessary. To do this the two halves are struck up from a suitable blank, with their pointed ends left connected by means of a short strip 7. These two halves are made in the form of half tubes, with their outer ends 8 provided with means, such as screw threads, for engagement with the insulator 9. Along the edges of these half pins, I prefer to form teeth or serrations 10 which match with the threaded ends 8 so that when

the parts are folded together, the threaded ends will be properly alined to form complete screw threads. The inner ends 11 of the half pin sections are preferably enlarged, as indicated in Figs. 1 and 2, at a short distance from the ends and are also given a somewhat sharpened or pointed effect, so that when the parts are folded together, the completed pin may be readily driven into the hole made for it. Where this enlargement or bulging occurs, I also prefer to leave openings 12 at the sides of the pin so as to give more or less resiliency to the enlarged portion. This engaging part of the pin may also be provided with one or more barbs or projections 13 struck up out of the body of the metal and adapted to serve in preventing the withdrawal of the pin. After the split pin has been formed in one piece, as indicated in Fig. 1, the two halves are folded together as clearly shown in Fig. 2, thereby forming the completed pin, the tongue or connecting strip 7 being ordinarily sufficient to hold the parts in position ready for driving and also serving to provide a sharpened end at the driving point. When the two halves are thus folded together, the saw teeth or indentations 10 cause the threaded ends to be brought into proper alinement to be engaged by the threaded insulator 9. If desired, a slot 14 may be left at one or both sides of the threaded ends and extended somewhat beyond the threaded and enlarged portion of the pin. This slot will give the threaded ends a certain amount of additional resiliency so as to firmly hold the insulator, and its upper end also provides an opening through which water may pass from the upper part of the insulator, down through the center of the pin, and out at the lower end thereof, without coming in contact with the wire supported by the insulator. If the pin is driven downwardly so that the insulator is at the top thereof, this opening also serves to allow the water to pass in the opposite direction.

It will be observed that my improved pin may be made very rapidly and cheaply from sheet metal, such as steel or other suitable material, and when the pin is driven into the hole made for it, for instance in the roof of a mine, it will, on account of its comparative resiliency and flexibility, fit tightly within the hole and also be securely held in position, and there will be little or no danger of

breaking the pins while driving the same. Furthermore, by having the parts secured together by the tongue or connection 7, a completed pin is formed which is more readily handled and easier driven than a split pin made of two unconnected halves.

In the modified form of construction shown in Fig. 3, the two halves 5 and 6 are made separately and are not connected by such a connecting piece as indicated at 7, but are preferably secured together in some convenient manner, as by means of rivets 15. In this instance, instead of comparatively sharp teeth as indicated at 10, the sides are provided with somewhat rectangular offsets 16 for alining the two sides when they are brought together.

While the screw threads form a convenient method of attachment for the insulator, yet it will be observed that some other form of connection might be used with my improved pin, which would come within the spirit of this invention.

Having thus described my invention, which, however, I do not wish to limit to the form herein shown and described, except as pointed out in the appended claims, what I claim and desire to secure by Letters Patent is:

1. An insulator pin formed from sheet metal, said pin being made of two substantially similar half portions, each of said portions being provided at one end with means for engaging with an insulator and having their opposite ends formed to make a driving point, the arrangement being such that

when the two halves are placed together, they will form a substantially tubular pin with a driving point at one end and insulator engaging means at the opposite end, the tubular pin portion being sufficiently yielding so that it will conform to, and engage closely with the walls of the hole in which it is driven.

2. As a new article of manufacture, an insulator pin comprising a stem with a head for engagement with an insulator made in two connected halves from a single piece of ductile material, the connecting portion being bent so as to bring the two halves together to form the completed pin.

3. A device of the character set forth, comprising two substantially similar halves formed from a single piece of sheet metal and connected together, half threads pressed into each of said pieces, and means for alining said threads when the parts are placed together, the arrangement being such that when the two halves are folded together, a completed pin of substantially tubular form will be made, having threads at one end and a driving point at the opposite end.

4. The combination with an insulator, of a hollow pin formed of sheet metal, said pin having an enlargement adjacent to its driving point and also having projections adapted to hold the pin securely in driven position.

WALTER J. WILSON.

Witnesses:

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