J. MATTHEWMAN, dec'd.

E. MATTHEWMAN, Adm'x.

Insulator for Telegraph Wires.

No. 201,544. **Patented March 19, 1878.**

Fig. 1.

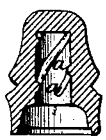


Fig. 2.

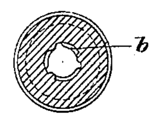
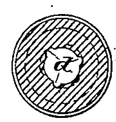


Fig. 3.



Attest.

A Henry Gentner

Wm E. Mowbray.

Inventor.

J. Mattheuman dec'd

Emma Mattheuman admtrix

By his attorney

T. S. Stetson

UNITED STATES PATENT OFFICE.

EMMA MATTHEWMAN, OF BROOKLYN, NEW YORK, ADMINISTRATRIX OF JOSEPH MATTHEWMAN, DECEASED.

IMPROVEMENT IN INSULATORS FOR TELEGRAPH-WIRES.

Specification forming part of Letters Patent No. **201,544**, dated March 19, 1878; application filed August 7, 1877.

To all whom it may concern:

Be it known that JOSEPH MATTHEWMAN, of Brooklyn, E. D., Kings county, New York, represented by EMMA MATTHEWMAN, of Brooklyn, aforesaid, his administratrix, invented certain new and useful Improvements in the Manufacture of Insulators for Telegraph-Wires, of which the following is a specification:

It has long been common to provide insulating-caps of glass, which fit upon pegs or supporting-pins of wood extending up into them from below. It is found that short smooth pins and corresponding holes in the insulators are defective, by reason of their allowing the insulators to jump off occasionally in irregular gales of wind. The objections to making the pins and insulators very long, and to screws and other analogous fastenings, are obvious.

This inventor has found that the ordinary connections of the wires to the insulator may be relied on to prevent the insulator from turning upon the pin even to a small extent, and that by providing the insulator with one or more inclined grooves or ridges on its interior surface, and giving a corresponding form to the supporting-pin, the surfaces may be locked upon each other sufficiently to avoid the evil.

JOSEPH MATTHEWMAN has invented a new form of the insulator, as here suggested, which is capable of being made very rapidly by suitable machinery, and has also invented highly-efficient machinery for producing them.

Figures 1, 2, and 3 are sections of the completed insulators.

Fig. 1 is a vertical section, and Fig. 2 a horizontal section, of an insulator made according to this invention, with inclined ridges on its interior. It is adapted to fit on a wooden pin when in use, the pin having corresponding grooves to match the said ridges. The insulator may be sufficiently strong and hard to form the groove in a previously ungrooved pin.

Fig. 3 is a horizontal section of a similar insulator, except that the inclines are grooves instead of ridges. These grooves *d* match corresponding ridges in the wood pin. (Not shown.)

In the drawings, *a a*, Fig. 1, represent the inclined ridges fitting in grooves *b b* in the pin; or the ridges may be made in the pin and the corresponding grooves in the interior of the insulator. The ridges are much inclined to the horizon, and approach nearly to the perpendicular, so that the insulator may be driven on the pin endwise by slightly turning it, or allowing it to slightly turn as it is driven on.

I attach great importance to the fact that the internal grooves or ridges *c* are much inclined, and do not form screw-threads, ordinarily so called. They are so nearly straight as allows the insulator to be driven down by being forced endwise upon the pin; yet it resists any forces tending to pull it off. When in use, the wire, which is tightly applied, forcibly resists the slight turning of the insulator which would be required to liberate it, and it remains engaged under all ordinary or extraordinary conditions.

What is claimed as the invention, and desired to be secured by Letters Patent, is—

The insulator herein described, provided in its interior with grooves or ridges *a a*, adapted to be applied on a wooden pin by a direct endwise force, and to cling thereon, as herein specified.

In testimony whereof I have hereunto set my name in the presence of two subscribing witnesses.

EMMA MATTHEWMAN.

Witnesses:
M. E. WATERS,
HENRY J. GREATA.