

(No Model.)

J. J. O'NEILL.
INSULATOR PIN.

No. 505,123.

Patented Sept. 19, 1893.

Fig. 1.

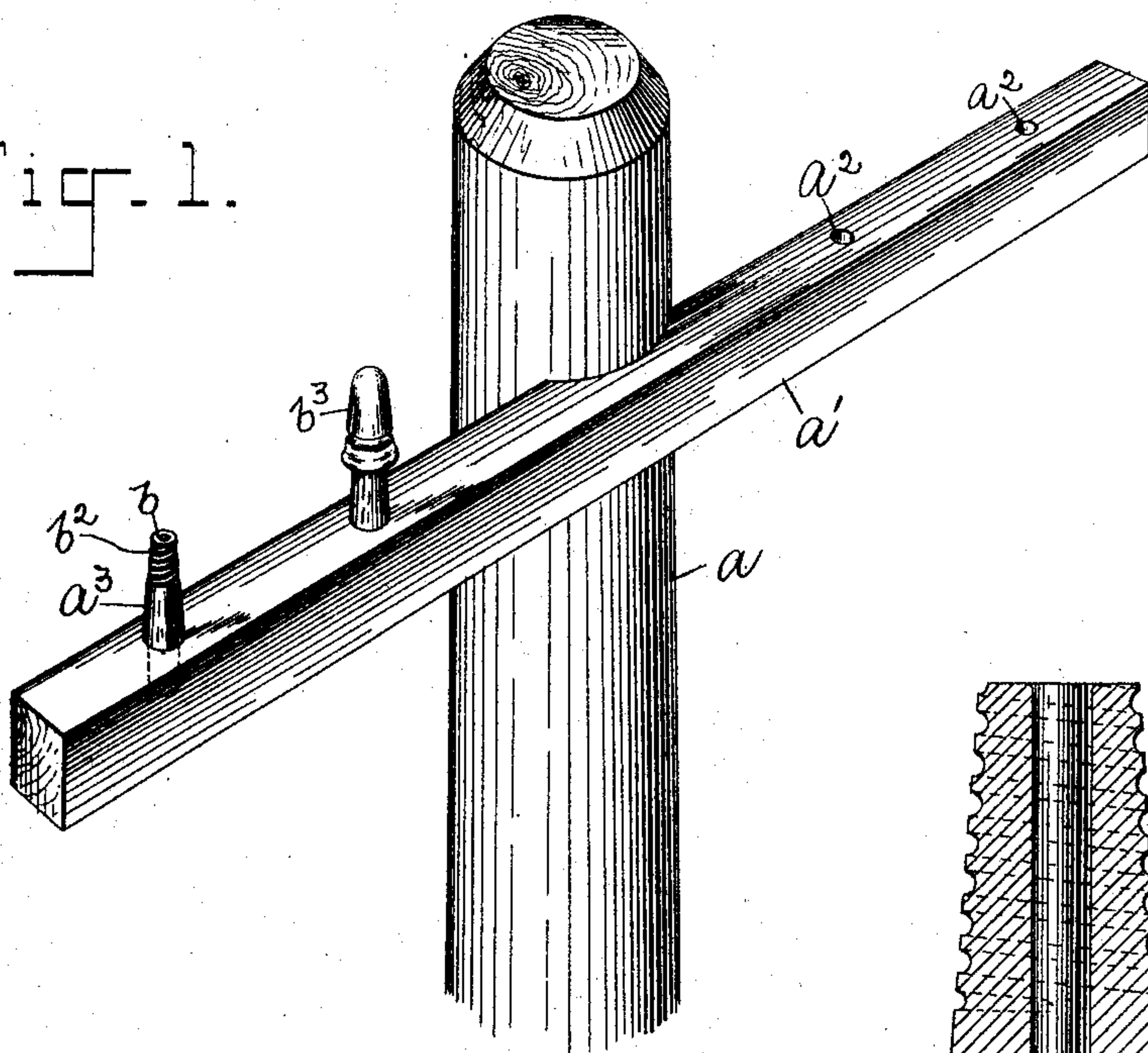


Fig. 3.

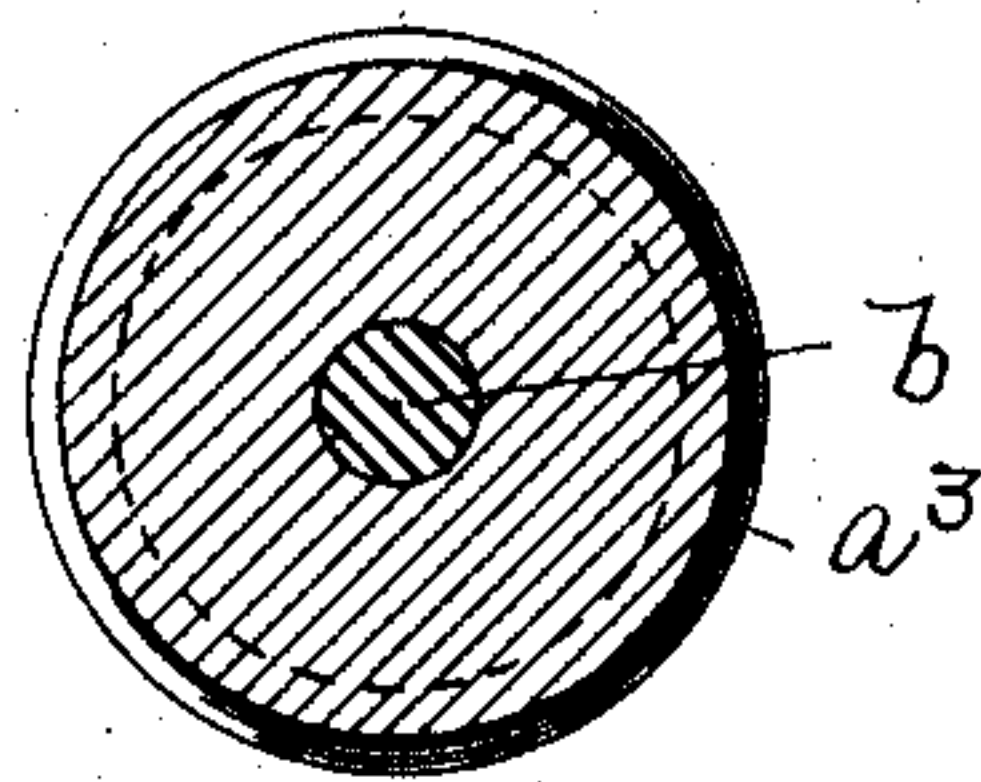
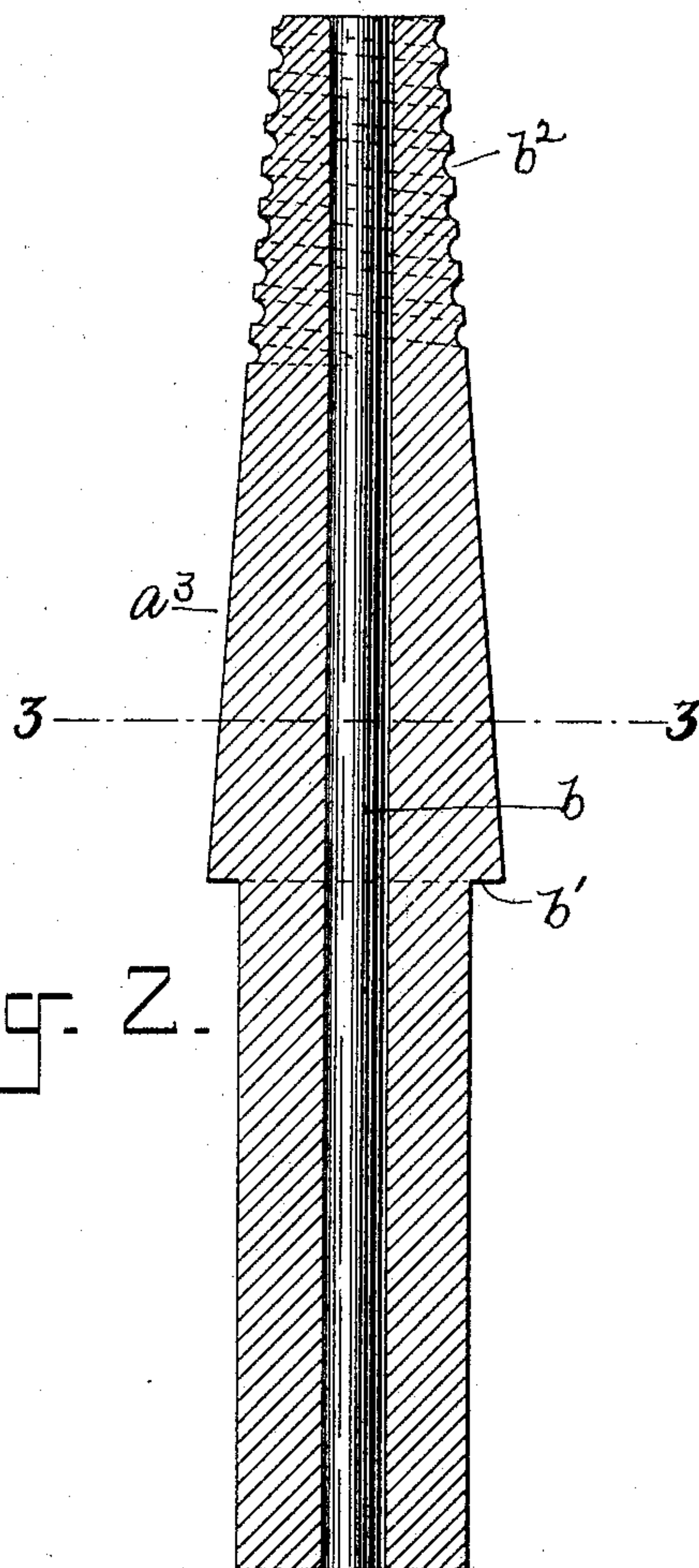


Fig. 2.



Witnesses.

John F. Nelson.
J. Murphy.

Inventor.

James J. O'Neill
By Jas. H. Churchill
Atty.

UNITED STATES PATENT OFFICE.

JAMES J. O'NEILL, OF BOSTON, MASSACHUSETTS.

INSULATOR-PIN.

SPECIFICATION forming part of Letters Patent No. 505,123, dated September 19, 1893.

Application filed April 14, 1893. Serial No. 470,292. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. O'NEILL, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Insulating-Pins, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to insulating pins or supports such as now commonly used on outside structures for supporting telegraph, telephone, electric power and other wires. As now commonly practiced, electric conducting wires are tied or otherwise secured to insulator caps usually of glass or porcelain, which are screwed or otherwise fitted upon solid wooden pins fitted into sockets in cross arms or trees firmly secured to suitable uprights or posts. The wooden pins referred to, in practice, are subjected to great strain, especially in stormy and windy weather, and frequently become broken, the tops of the wooden pins snapping off. This is especially true when the pins have been in use for some time and thereby exposed to moisture, which tends to rot and weaken the pin.

My present invention has for its object to overcome the defects of the solid wooden pin above mentioned and to provide an insulating pin, which is capable of withstanding excessive weight and strain and which may be used a substantially long time without danger of the pin being broken. In accordance with my invention, the insulating pin is provided with a substantially central core, preferably a steel bar or rod, which, for the best results, is extended the entire length of the pin, and which, in practice, greatly strengthens the wooden pin, thereby enabling it to support a greater weight and to resist a greater strain without danger of becoming broken.

The particular features in which my invention consists will be pointed out in the claims at the end of this specification.

Figure 1, represents in perspective a sufficient portion of a telegraph or other pole having secured to it a cross tree or arm provided with insulating pins embodying my invention; Fig. 2, a central longitudinal section on an enlarged scale of my improved insulating pin, the central core being shown in elevation,

and Fig. 3, a cross section on the line 3—3, Fig. 2.

Referring to Fig. 1, the pole *a* provided with the cross tree or arm *a'* having the sockets *a²* for the reception of the pins *a³* may be of any usual or well-known construction, such as now commonly used on outside work for supporting telegraph and other electric conductors or wires. The pins *a³*, which are usually made of solid pieces of wood, are, in accordance with my invention, made of composite material, viz:—wood and metal, the metal portion preferably forming the core or center *b* of the pin, as represented in Figs. 2 and 3. The metal core *b* is preferably made of a steel or iron rod or bar, which is driven into a suitable hole or opening in the wood, the said metal bar or rod for the best results extending the entire length of the pin. The wooden portion of the pin may be provided with the usual shoulder *b'* to abut against the cross arm or tree, when the lower portion of the pin is driven into its socket. The upper part of the wooden portion of the pin may be provided with the usual screw threads *b²* upon which the insulator *b³* is screwed. The composite pin herein described possesses great strength and is capable of withstanding excessive strain, the metal core greatly strengthening the wooden portion of the pin and prolonging the life of the pin, even after the wooden portion has become decayed or weakened from long exposure. The composite insulating pin may be used to advantage with other forms of support than the cross arm. The wooden pins are a source of great danger, for when they become broken, as occurs in actual practice, the wires, which they support, are liable to fall into contact with other wires, carrying a current of different potential, which would result in the burning out of the circuit of lower potential, and also would be a source of danger to life.

I claim—

1. As an improved article of manufacture, a composite supporting pin for electric conductors or wires, consisting of a non-metallic portion and a reinforcing metal portion, substantially as described.

2. As an improved article of manufacture, a composite supporting pin for electric conductors or wires, consisting of a wooden pin

and a reinforcing metal center, substantially as described.

3. As an improved article of manufacture,
a composite supporting pin for electric con-
5 ductors or wires, consisting of a wooden por-
tion a^3 , and a reinforcing metal rod or bar
inserted into the said wooden portion a^3 , sub-
stantially as described.

In testimony whereof I have signed my
name to this specification in the presence of 10
two subscribing witnesses.

JAMES J. O'NEILL.

Witnesses:

JAS. H. CHURCHILL,
J. MURPHY.