

No. 816,171.

PATENTED MAR. 27, 1906.

N. MICHELENA É IÑARRA.
ARTIFICIAL STONE POST OR COLUMN.

APPLICATION FILED MAR. 6, 1905

Fig. 1.

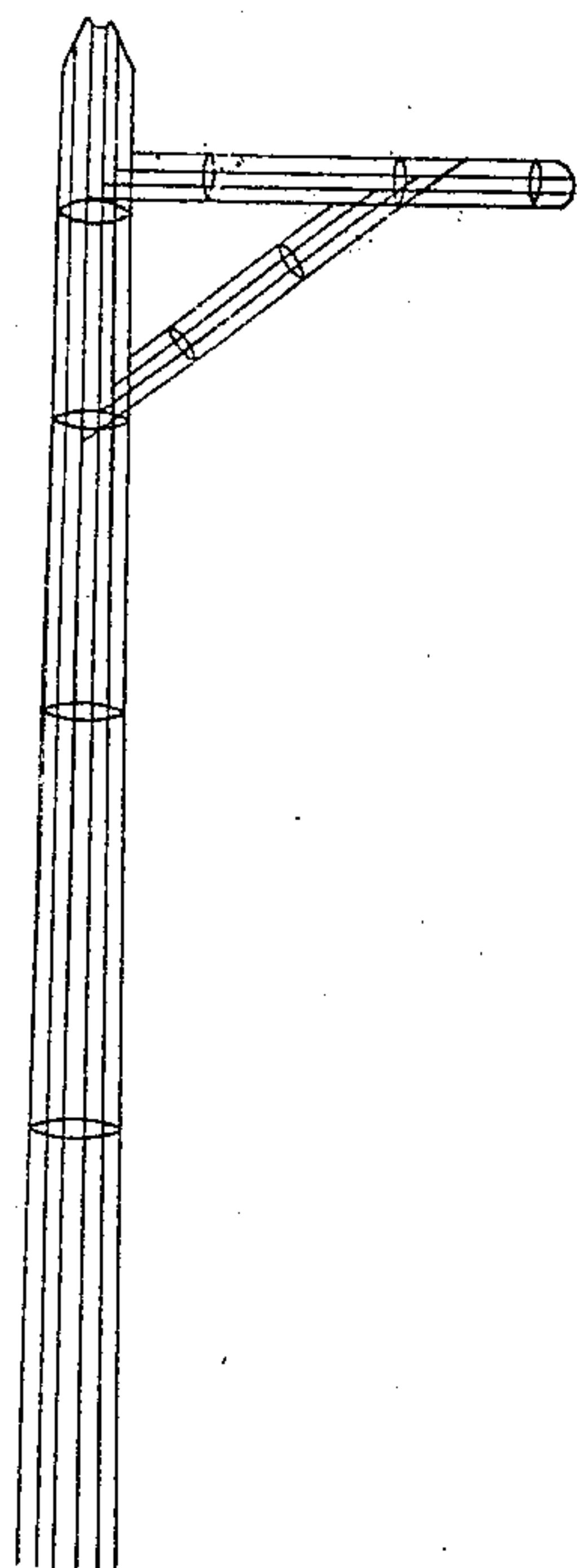


Fig. 2.

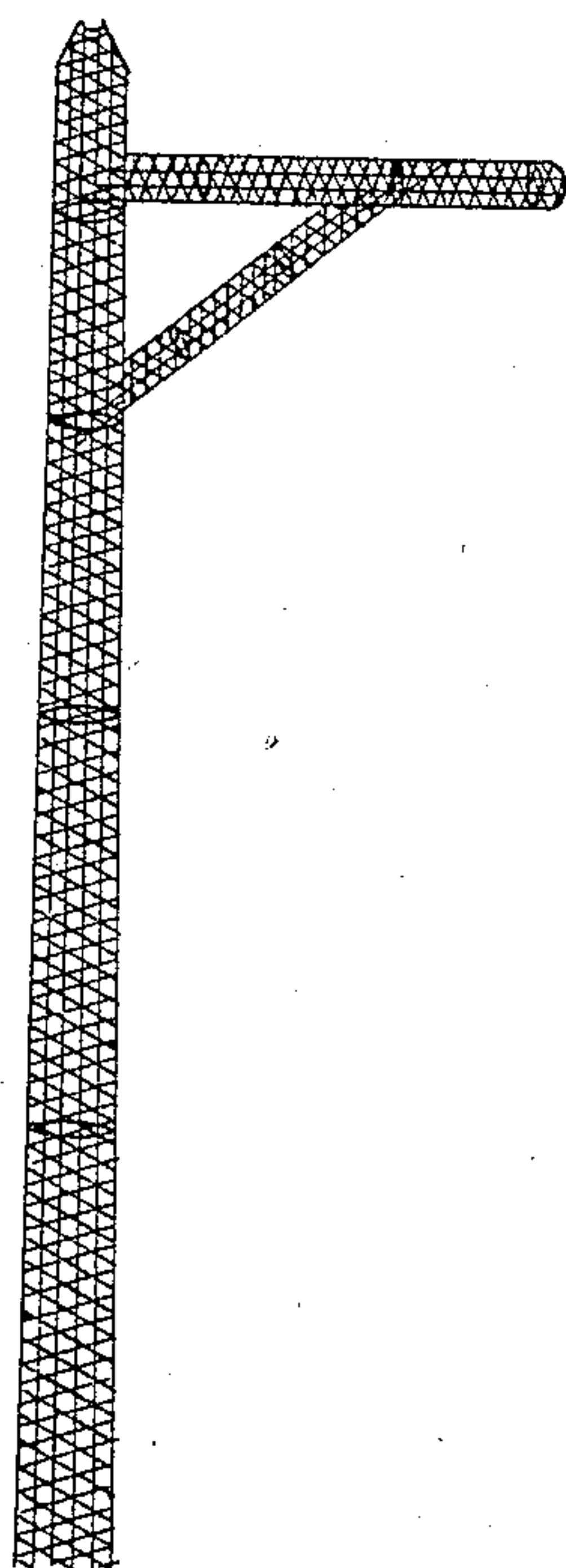


Fig. 3.

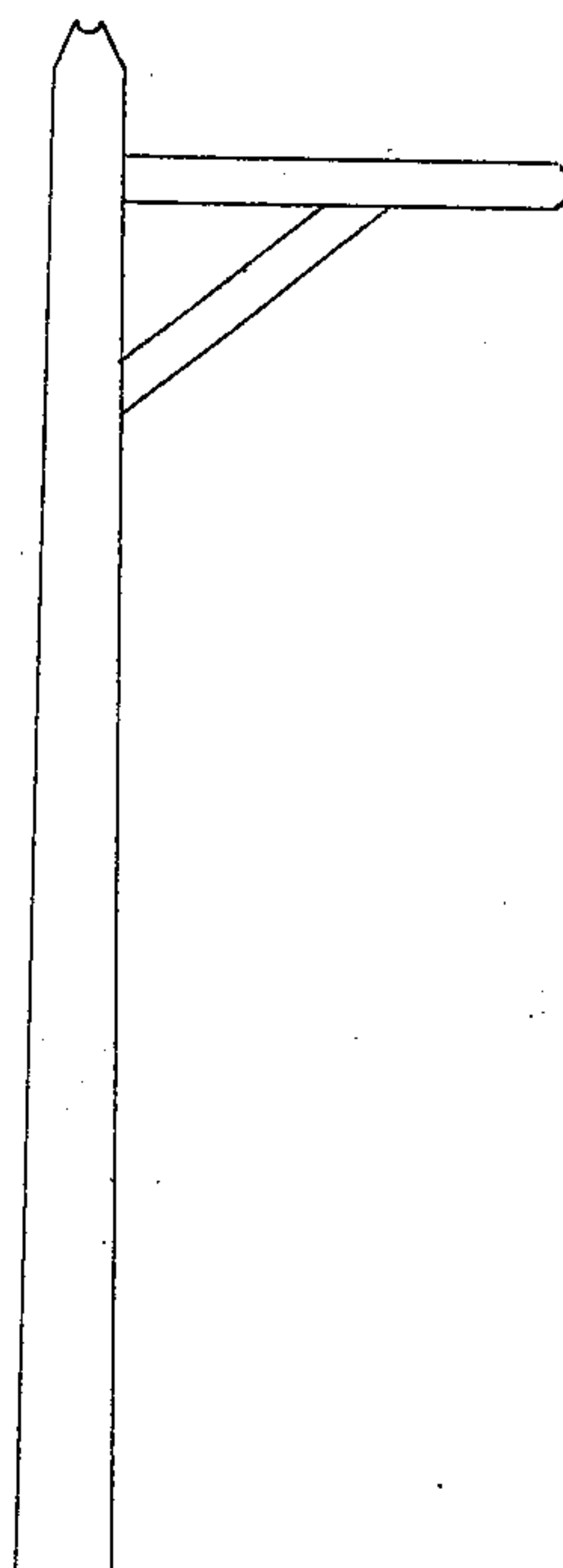


Fig. 4.

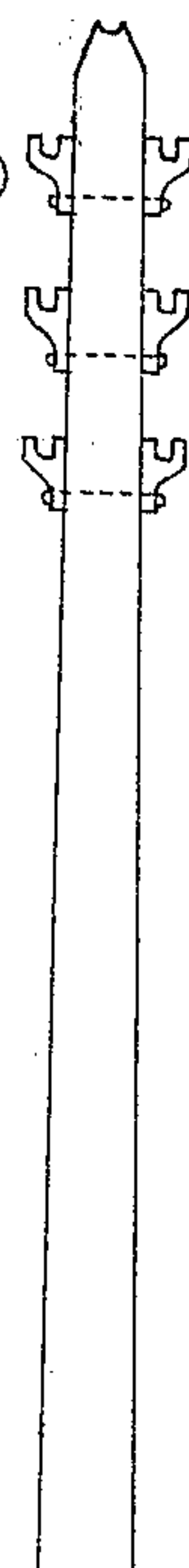


Fig. 5.

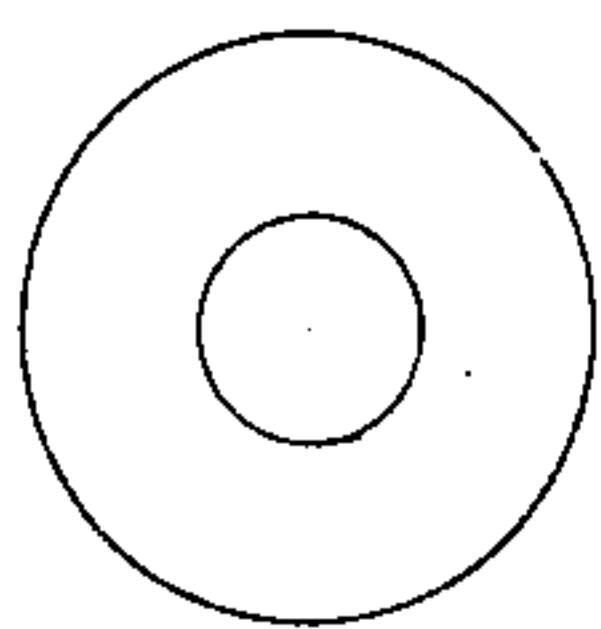


Fig. 6.

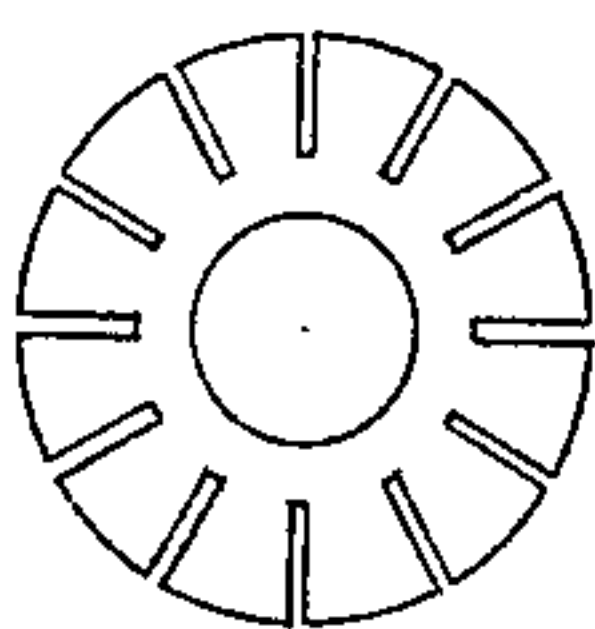


Fig. 7.

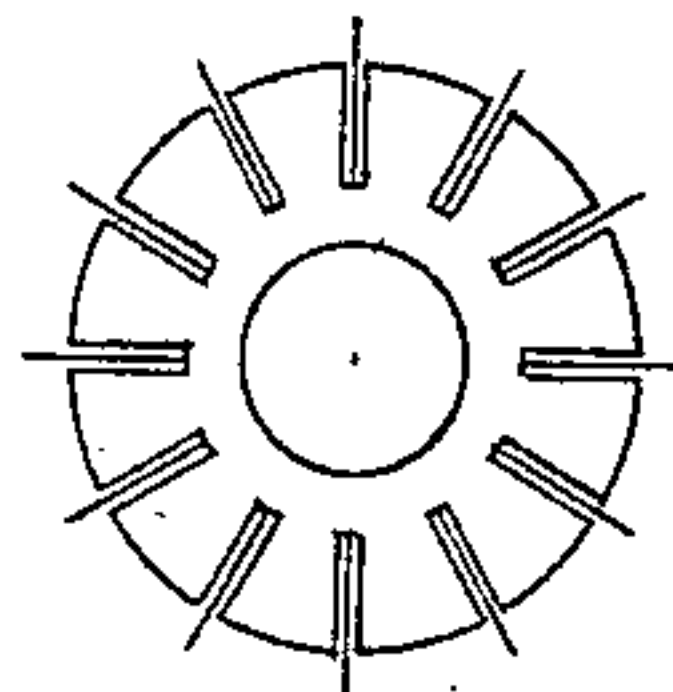
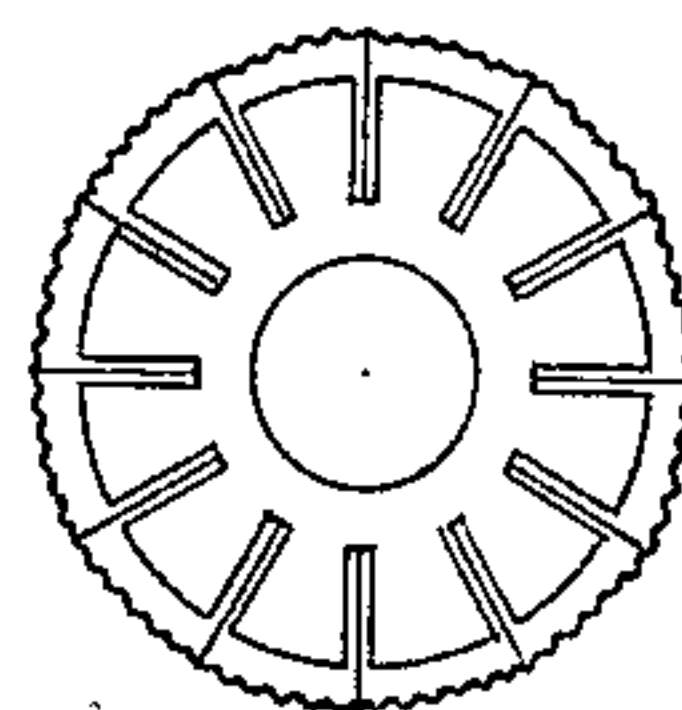


Fig. 8.



Witnesses

Fred. S. Grumbaf.
Edward D. Allen.

Inventor

Nicolas M. é Iñarra.

by Masby Gregory
Attorneys.

UNITED STATES PATENT OFFICE.

NICOLAS MICHELENA É IÑARRA, OF RENTERIA, SPAIN.

ARTIFICIAL-STONE POST OR COLUMN.

No. 816,171.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed March 6, 1905. Serial No. 248,396.

To all whom it may concern:

Be it known that I, NICOLAS MICHELENA É IÑARRA, a subject of the King of Spain, residing at Renteria, Guipuzcoa, Spain, have invented a new and useful Improvement in Artificial-Stone Posts or Columns, of which the following is a specification.

My invention has reference to improvements in the construction of artificial-stone posts, columns, and the like which are more particularly intended to be used for carrying wires, electric cables and the like and which are to be used in place of the wood poles or iron columns now generally used for such purposes. These latter poles or columns, whether of wood or iron, are not very durable on account of their being affected by damp; and the object of my invention is to obviate this defect, said invention consisting in making such posts of a skeleton frame formed mainly of strips of metal embedded and incased in cement or the like, as hereinafter described, by which construction a post or column having great durability, strength, and solidity is obtained.

After having carefully considered the requirements in all respects and in view of the satisfactory results of practical experiments carried out by me I proceed to describe the invention in as simple and concrete a manner as possible with the aid of the accompanying drawings, in which—

Figure 1 shows a plain frame or skeleton of a post having a projecting arm and a stay therefor. Fig. 2 shows the same frame or skeleton, but with a covering of wire-netting or wire-mesh. Fig. 3 shows the post, arm, and stay as they appear when finished. Fig. 4 is a view of another finished post, but without an arm or stay and showing how insulators for electric wires or cables may be mounted thereon; and Figs. 5, 6, 7, and 8 represent wood disks in slits or grooves, in which the metal strips are engaged to form the skeleton post.

The construction is so simple that it can be explained in a few words. First, several wood disks, Fig. 5, are cut of a thickness and diameter proportionate to the length and diameter of the post it is desired to make. In the outer periphery of the disks a number of slits or grooves (generally twelve) are cut, Fig. 6, as will be more clearly seen from Fig. 8, which is a transverse sectional view of the post at one of the disks and in which the metal strips form-

ing the frame and also the outer covering or wire mesh can be seen in plan.

The posts may be made of cylindrical, conical, or curved form and may have one or more arms either with or without stays. In fact, they may be made in any form best adapted for the purpose for which they are intended, all the parts—i. e., post proper, arms, and stays—forming practically a single piece, thus obviating their coming apart or falling and avoiding defects in the fixing of such arms or stays. In order to attain this result, the following is the procedure to be adopted: The metal strips which extend from the foot of the post are bent outwardly at that point at the desired height where the stay is to be fixed—that is to say, the strips which are considered necessary to support the arm—and they are engaged with the corresponding disks, and the metal strips necessary to form an arm, Fig. 1, extend from the upper end of the post to the point where the arm is to project and are there bent to form said arm, these latter strips and those of the support or stay being joined together at the point where they meet. Between the points indicated where said strips are bent outwardly they are connected by other strips which are spliced onto them, being superposed and engaged also in the slits or grooves in the disks, thus forming a skeleton post, as shown in Fig. 1. The skeleton posts thus prepared are placed in a mold made of wood, zinc, or other material, (even a clay mold may be employed,) and then a mixture of Portland cement, hydraulic lime, sand, small pebbles, &c., is poured in, the mixture being pressed or forced into the mold so that the skeleton is completely filled in and enveloped therein. When thoroughly dry, the surface of the post is polished, and we have a post, as shown in Fig. 3, of very great rigidity and durability.

As a rule these posts will be made slightly conical, as shown in Figs. 1, 2, 3, and 4; but they may also be made cylindrical, without arms, Fig. 4, or more or less conical, or in the form of columns with moldings or capitals, smooth or with ornaments, in relief, &c., since all depends upon the form of the molds.

It will be understood that part of the post is to be sunk in the ground, as usual, and that of course the shape and the diameter of the post will depend upon the weight it has to

support, as well as on the use it is to be put to—for carrying cables or wires for tramways, telephones, telegraphs, electric lighting, for mine-tramways, for masts of ships,
5 or for supporting buildings.

The usual fittings, such as insulators, pulleys, &c., are fixed on these posts by means of pins or bolts which pass through the post within tubes sealed in with the cement, or
10 they may be fixed on metal rings or bands mounted on the posts and fixed by means of screws or pins.

What I claim as my invention, and desire to secure by Letters Patent, is—

15 An artificial-stone post or column having an arm and a stay for said arm formed integrally therewith, consisting of a concrete mass having embedded therein a skeleton or frame formed of metal strips which are en-
20 gaged in slits or grooves in the periphery of a

series of wood disks, the strips which form the skeleton of the lower part of the post being bent outwardly to form the skeleton of the stay and the strips which form the skeleton of the upper part of said post being bent
25 outwardly to form the skeleton of the arm, said stay and arm-strips being joined at the point where they meet, and the strips which form respectively the skeleton of the upper and lower parts of the post being connected
30 between the bends by strips spliced thereon in alinement therewith, substantially as set forth.

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

NICOLAS MICHELENA É IÑARRA.

Witnesses:

MARTIN MARTICORENA,
E. MARTIN