

No. 798,235.

PATENTED AUG. 29, 1905.

W. R. TWIGGS.
INSULATOR.

APPLICATION FILED MAY 9, 1904.

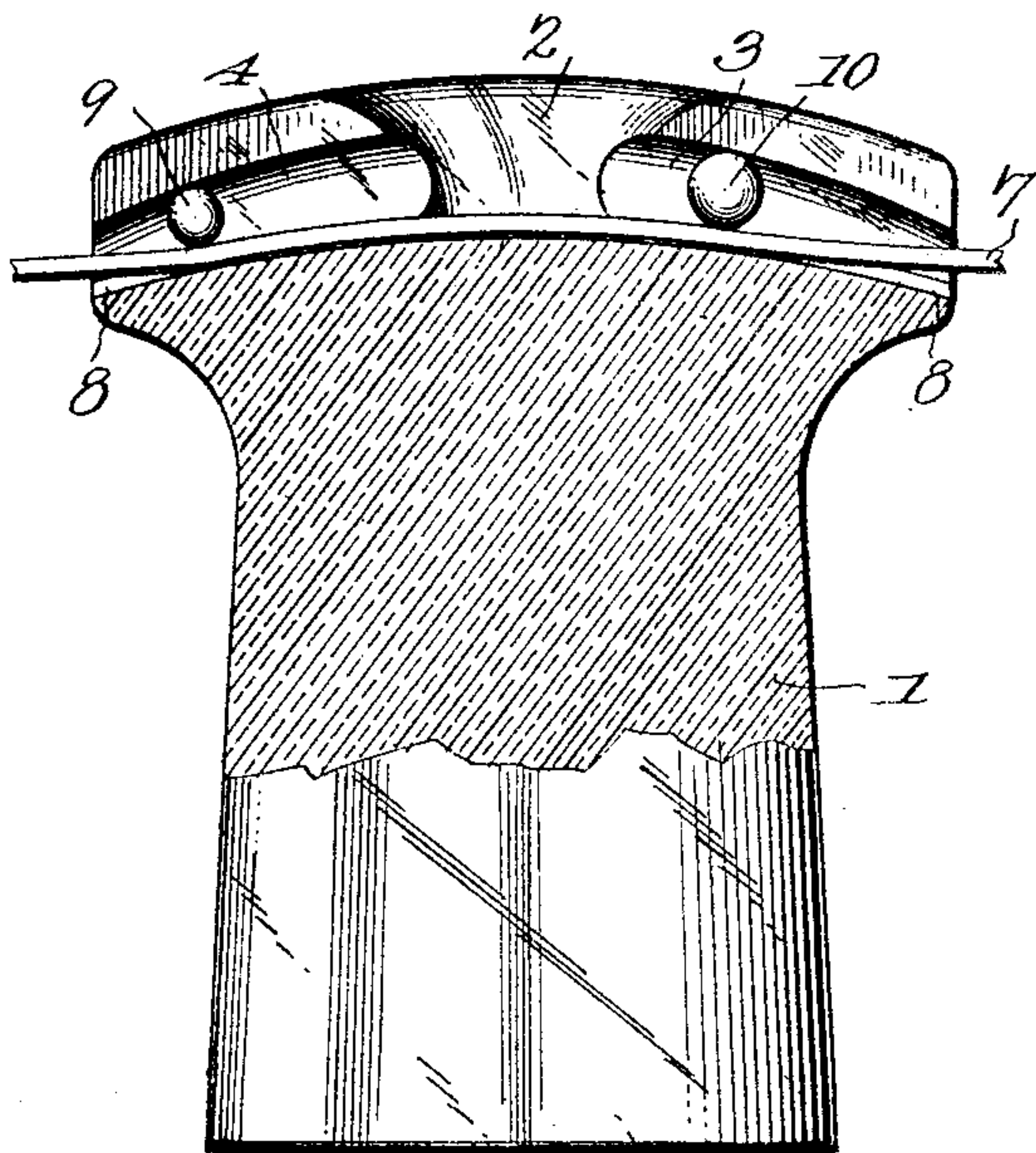


Fig. 1.

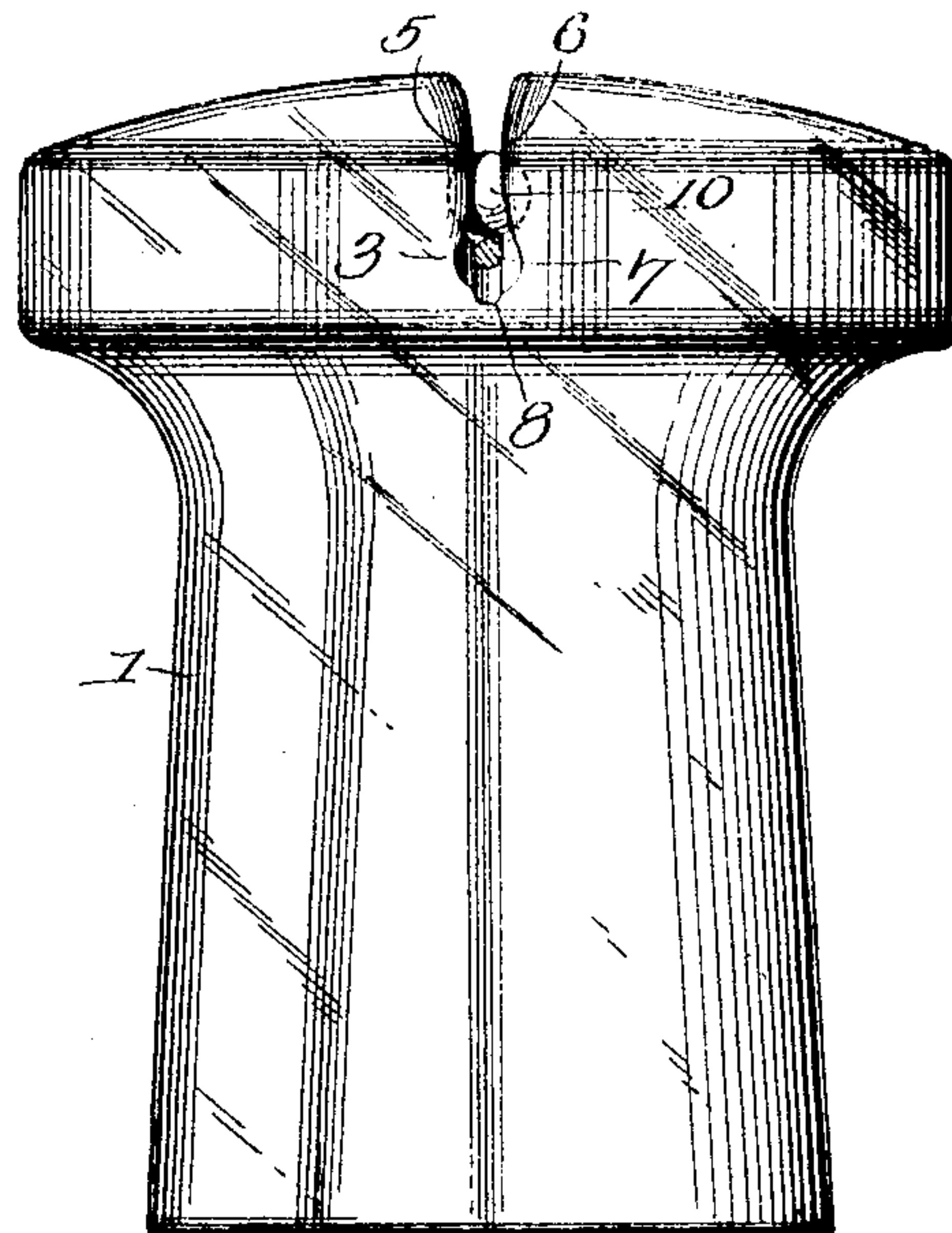


Fig. 2.

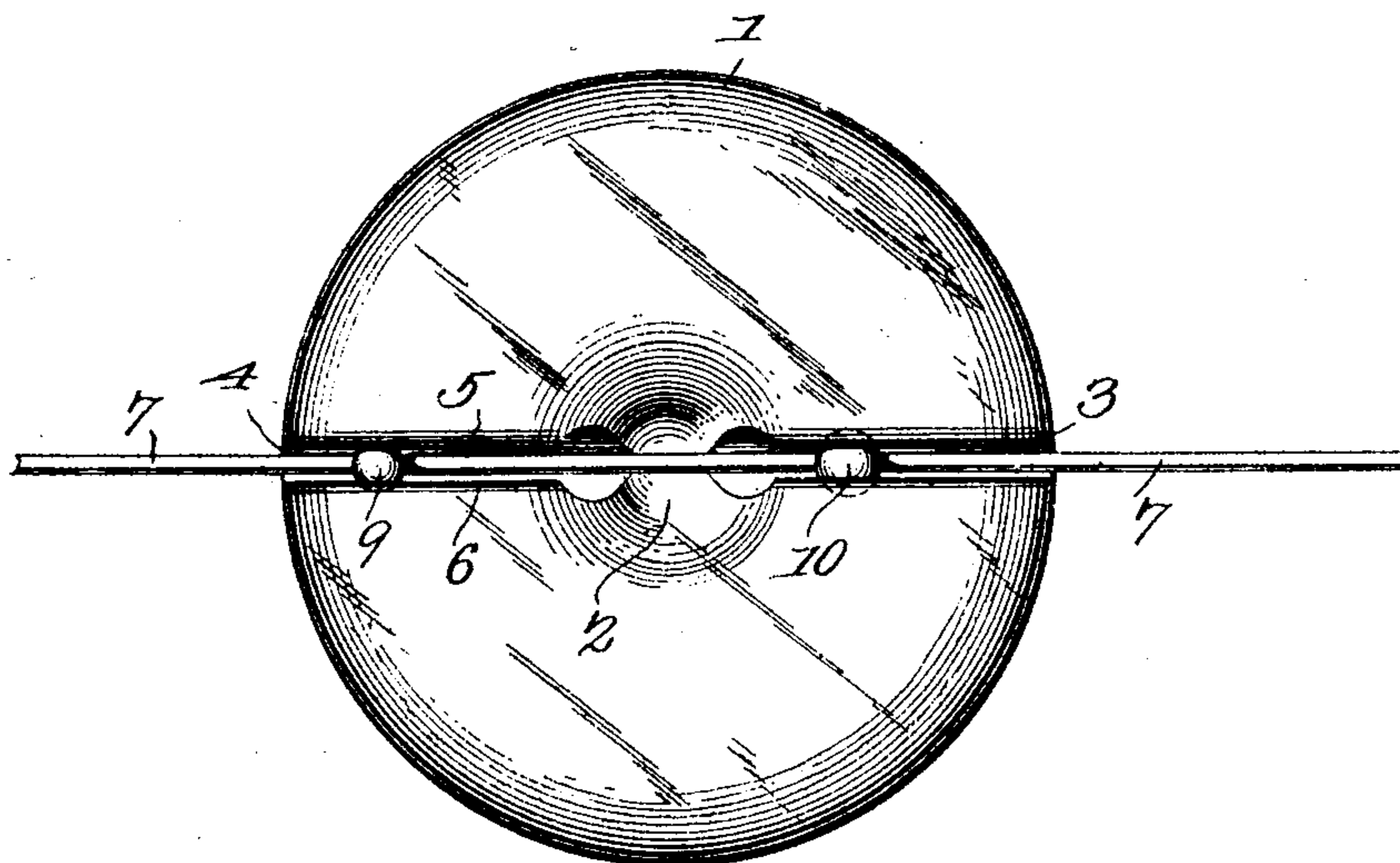


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM R. TWIGGS, OF SANDUSKY, OHIO.

INSULATOR.

No. 798,235.

Specification of Letters Patent.

Patented Aug. 29, 1905.

Application filed May 9, 1904. Serial No. 207,091.

To all whom it may concern:

Be it known that I, WILLIAM R. TWIGGS, a citizen of the United States, residing at Sandusky, in the county of Erie and State of Ohio, have invented a new and useful Insulator, of which the following is a specification.

This invention relates to insulators.

One object of the invention is to improve the construction of such devices by rendering them capable of holding the line-wire securely without the use of tie-wires or similar fastening devices.

Other objects of the invention are to simplify and cheapen the construction of insulators.

With these objects in view the invention resides in an insulator formed with a central depression from which lead off in opposite directions a plurality of downwardly-inclined slots which taper toward their outer ends and are adapted to receive the line-wire, said wire being held in the slots by balls inserted through the central depression and engaging said line-wire.

The invention will be more clearly described hereinafter, with reference to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a sectional view, partly in elevation, of the improved device. Fig. 2 is a view in elevation at right angles to Fig. 1. Fig. 3 is a plan view.

The numeral 1 indicates the body of the improved insulator, which may be made of glass or other suitable insulating material. Formed in the upper end of the insulator 1 is a central depression 2. Communicating with the central depression 2 are oppositely-extending slots 3 4, each of which is tapered or contracted toward its outer end. The upper portion of each slot 3 4 is narrowed, as shown at 5 6, only sufficient width being given to the slot to permit the insertion of the line-wire 7. A groove 8 of sufficient size to receive the under portion of the line-wire 7 is formed along the bottom of each slot 3 4 and across the bottom of the depression 2. Balls 9 10, of suitable insulating material, are placed one in each of the slots 3 4, said balls being adapted to rest upon the wire and hold it securely in the groove 8. It will be observed from the drawings that the slots 3 4 in addition to being tapered are inclined downwardly toward their outer ends. By reason of this construction the balls 9 10 when they are placed in the central depression 2 will

roll down the tapered slots 3 4 until they become jammed therein, the jamming of the balls being further facilitated by any movement of the line-wire.

The method of using the improved insulator will be understood from the foregoing description, taken in connection with the drawings. The wire 8 is inserted through the narrow upper end of the slots 3 4 and fitted into the groove 7. The balls 9 10 are then inserted into the slots 3 4, respectively, where they serve to hold the line-wire securely in place, preventing not only its withdrawal from the insulator, but also any longitudinal movement thereof.

The balls 9 10 may be made in different sizes to permit the use of large and small wires. If desired, a large and a small ball may be used with each insulator. When it is desired to remove the wire from the insulator for any reason, the small ball may be easily taken out of its tapered slot first and then the large ball afterward.

By reason of the fact that a longitudinal pull on the wire 8 causes the ball on the side from which the pull is exerted to become jammed in its tapered slot, and thus securely hold the wire, said wire may be stretched properly when first applied to the insulator to prevent it from having excessive slack between the supporting-poles, and the improved insulator will prevent it from sagging after having been once properly stretched.

It is preferred to construct the insulator and the balls from glass; but it will be understood that any other suitable material may be used for this purpose. Furthermore, the insulator is adapted to be used upon any kind of electric wires or systems.

The improved insulator, as before stated, is designed to hold the electric wire without the use of binding or tie wires. In this manner the time and labor of applying the tie-wires, to say nothing of the expense of the tie-wires themselves, is saved and the line-wire may be strung much cheaper and quicker than heretofore.

Changes in the precise details of construction illustrated and described may be made within the scope of the following claims without departing from the spirit of the invention.

Having thus described the invention, what is claimed is—

1. An insulator comprising a body portion having a depression formed in the top there-

of, diametrically-disposed downwardly-inclined slots radiating from said depression and adapted to receive a line-wire, and removable locking members disposed within said slots for engagement with said wire.

5 2. An insulator comprising a body portion having a depression formed in the top thereof, a plurality of diametrically-disposed downwardly-tapered slots radiating from
10 said depression, and removable locking members disposed within said slots and adapted to engage said wire.

3. An insulator comprising a body portion the top of which is provided with a plurality
15 of diametrically-disposed slots inclined downwardly from the center thereof and adapted to receive a line-wire, and locking members disposed within said slots and adapted to engage said wire.

20 4. An insulator comprising a body portion the top of which is provided with a plurality

of diametrically-disposed slots inclined downwardly from the center thereof and each having a groove in its lower wall adapted to receive a line-wire, and removable locking
25 members disposed in said slots and adapted to engage said wire.

5. An insulator comprising a body portion provided with a depression having a plurality of diametrically-disposed slots radiating
30 therefrom, a seating-groove formed in the bottom wall of each slot for the reception of a line-wire, and balls disposed in the slots and adapted to engage said wire.

In testimony that I claim the foregoing as
35 my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM R. TWIGGS.

Witnesses:

JOSH B. DAVIS,
JOSEPH EBNER.