

No. 689,171.

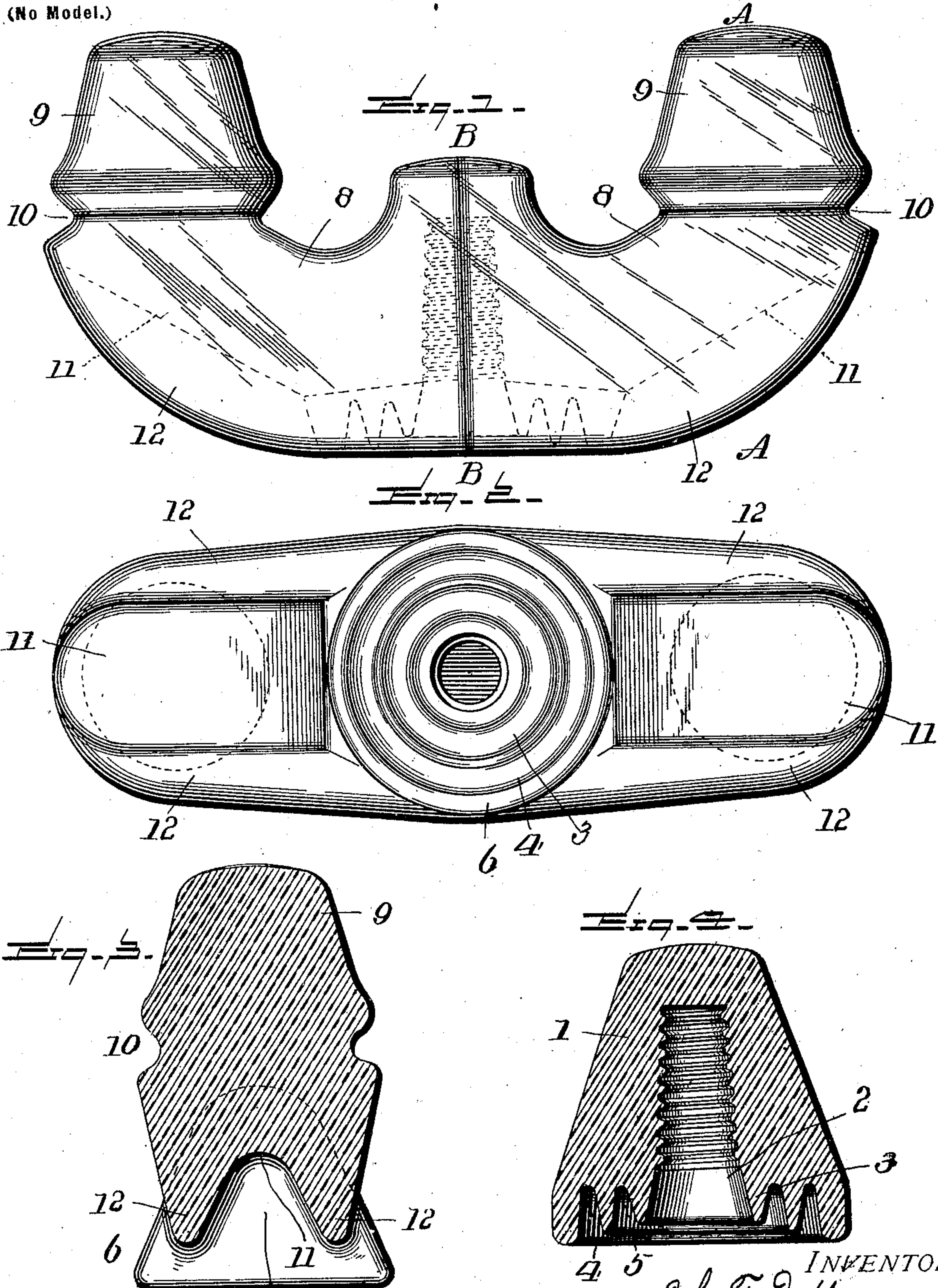
Patented Dec. 17, 1901.

J. F. DUFFY & H. B. HERSHEY.

INSULATOR.

(Application filed June 12, 1901.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN F. DUFFY AND HENRY BRUNER HERSHEY, OF SCRANTON,
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INSULATOR.

SPECIFICATION forming part of Letters Patent No. 689,171, dated December 17, 1901.

Application filed June 12, 1901. Serial No. 64,268. (No model.)

To all whom it may concern:

Be it known that we, JOHN F. DUFFY and HENRY BRUNER HERSHEY, citizens of the United States, and residents of Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Insulators, of which the following is a specification.

The object of our invention is to construct an insulator of glass to supplant the "pipe-arm" insulator in use at the present time. The pipe-arm, as its name implies, is made of pipe so designed as to bolt through the cross-arm of the pole and support two wooden pins, on which are screwed two glass insulators. In order to place one of them in position, it is necessary for the lineman to drill a hole in the cross-arm and bolt the pipe-arm on, whereas in the use of our insulator it is only necessary to remove the single insulator on which the wire is tied and replace it, screwing our insulator on the same pin.

Our invention consists of a double-knob integral insulator, as will be more fully hereinafter set out.

In the drawings, Figure 1 is a front elevation of our improved invention. Fig. 2 is a bottom plan thereof. Fig. 3 is a vertical section on the line A A, Fig. 1. Fig. 4 is a vertical section on the line B B, Fig. 1.

1 represents the central portion of the insulator, having a screw-threaded opening extending from the bottom upward to a point near the top of the same. A portion of the lower end of this opening is flared outwardly, as at 2, said flaring wall forming a depending annular flange 3 entirely around the bottom of said opening.

4 is an annular depending flange around and of greater diameter than the flange 3, whereby a space 5 is formed between them.

6 is an annular depending flange formed around the circumference of the bottom of the central portion which extends below the horizontal plane of both of the flanges 3 and 4. There is a space 7 between the flanges 4 and 6, as clearly seen in Fig. 4.

8 represents laterally-extending arms integral with the central portion surmounted by the caps 9 9, having the usual groove 10 10, in which the line and the wires are se-

cured in the well-known manner. The bottoms of these arms are sloped or inclined, as at 11, as shown more clearly by the dotted line in Fig. 1, to a point about the top of the flange 6 on the central portion.

12 represents depending flanges extending from each side of the bottom of the arms 8 8, as clearly shown in Figs. 1, 2, and 3.

From the above it will be seen that the double insulator may be attached to a cross-arm by means of a single pin of the kind now in use for the single insulators.

In case it is desired to break the main-line wire and put in a loop it is only necessary to remove the single old style insulator from its pin and replace it with our improved double insulator on the same pin.

It is of course the object of the flanges at the bottom of the central portion and at the bottom of the arms to shed water, &c., to prevent short-circuiting.

What we claim, and desire to secure by Letters Patent, is—

1. An insulator of the character described, comprising a central portion having a central screw-threaded opening, and laterally-extending integral side arms surmounted with knobs and a groove formed at the juncture of said arms and knobs.

2. An insulator of the character described, comprising a central portion having a central screw-threaded opening, laterally-extending integral side arms surmounted with knobs and a groove formed at the juncture of the arms and knobs, depending flanges integral with each side of the base of said arms.

3. An insulator of the character described, comprising a central portion having a central screw-threaded opening, depending annular flanges spaced apart around said opening, laterally-extending arms integral with the central portion surmounted with knobs, a groove formed at the juncture of the arms and knob, and depending flanges at each side of the bottom of said arms, said arms having a slanting bottom.

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Witnesses:

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