

No. 696,665.

Patented Apr. 1, 1902.

W. C. BENBOW.
WIRE INSULATOR.

(Application filed Jan. 4, 1901. Renewed Sept. 9, 1901.)

(No Model.)

Fig. 1.

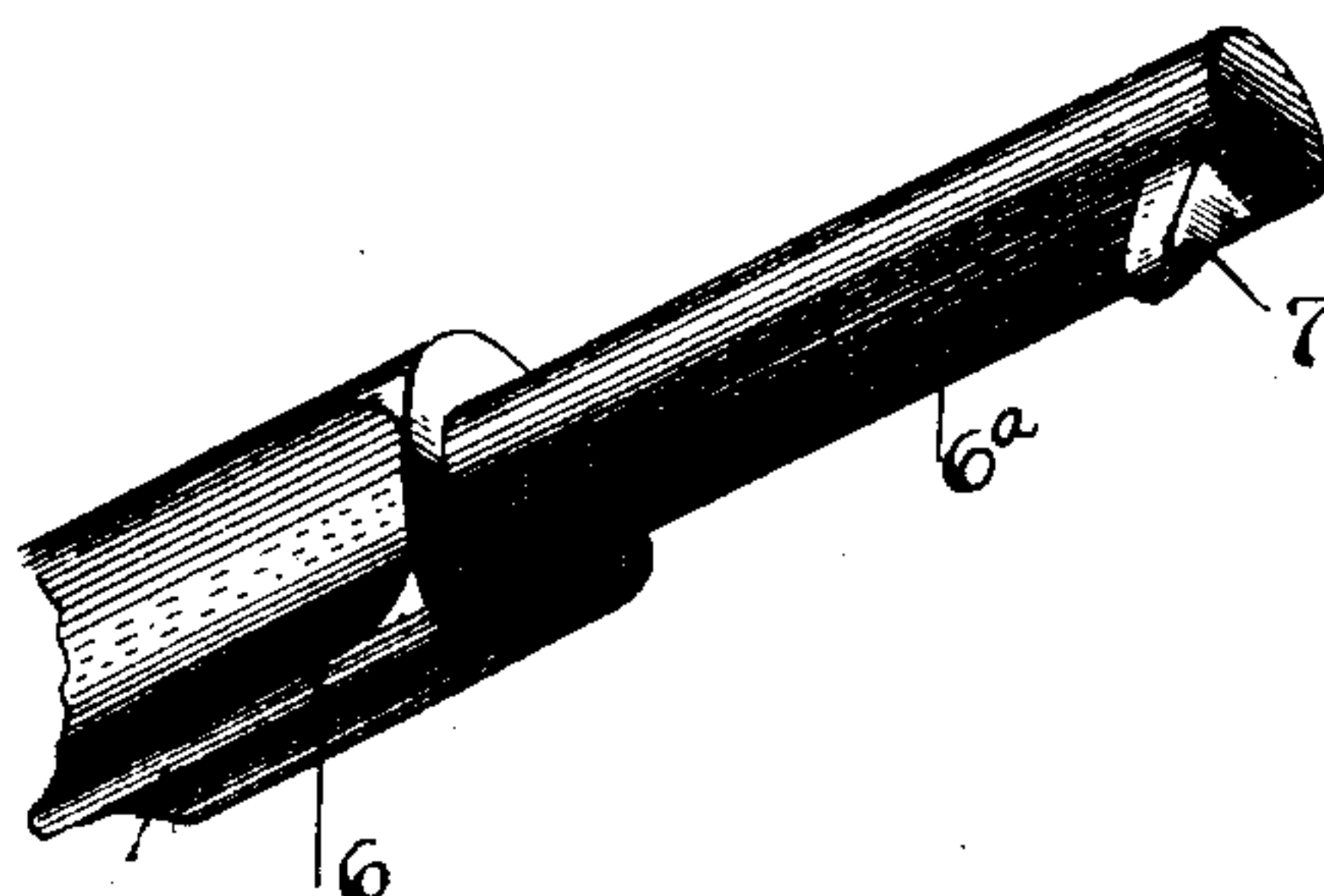
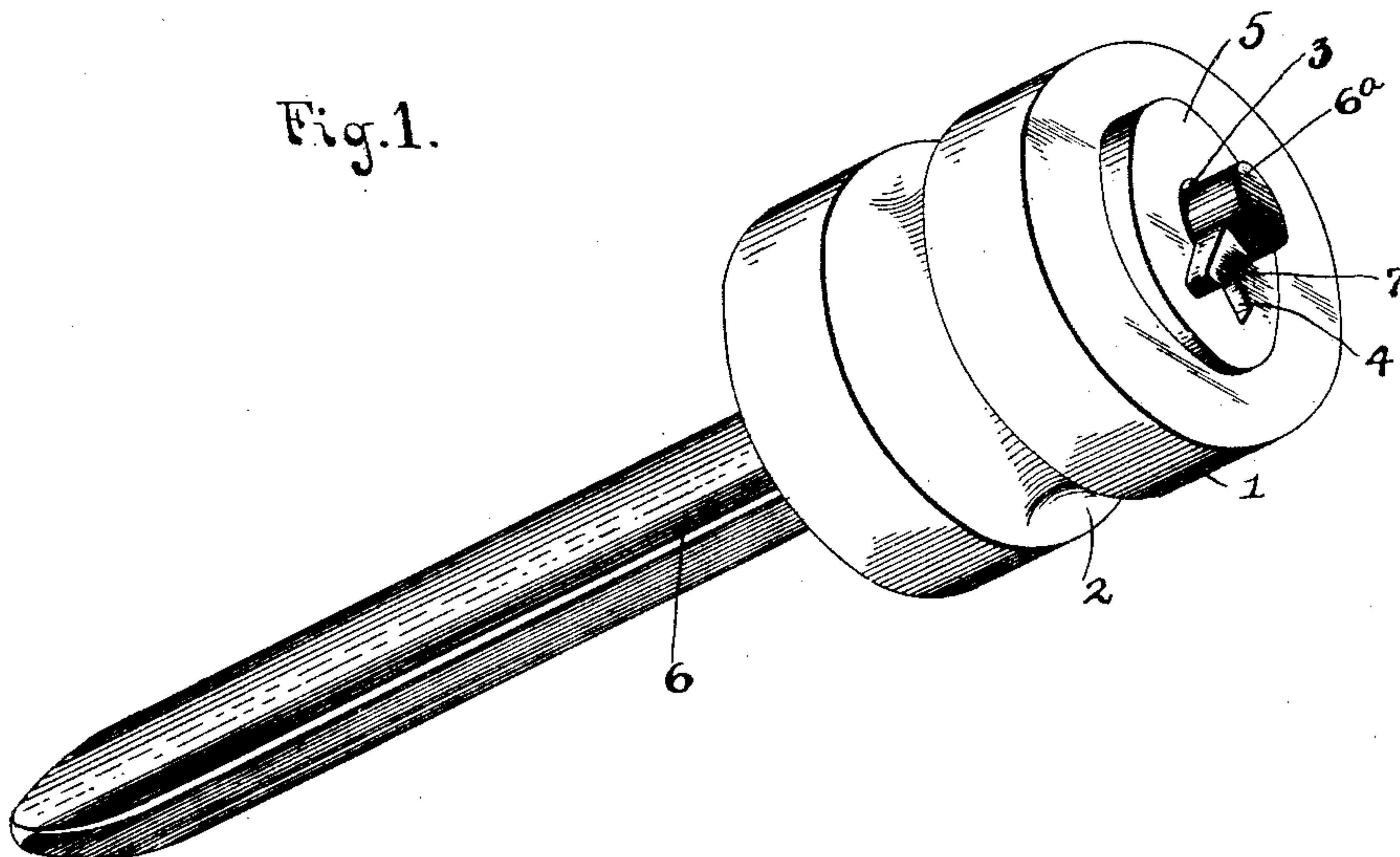


Fig. 2.

WITNESSES:

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WIRE-INSULATOR.

SPECIFICATION forming part of Letters Patent No. 696,665, dated April 1, 1902.

Application filed January 4, 1901. Renewed September 9, 1901. Serial No. 74,708. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. BENBOW, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Wire-Insulators, of which the following is a specification.

My invention relates to the improvement of insulators for mine-wires; and the objects of my invention are to provide a simple, convenient, and inexpensive insulator for this purpose which may be quickly and effectively connected with a wall or other supporting-body and which may be readily disconnected therefrom and to produce certain improvements in details of construction, which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of my improved insulator and its supporting-pin, and Fig. 2 is a perspective view of the outer end portion of said pin.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I provide an insulator-body, which is preferably of the cylindrical form shown at 1, this body being provided with a peripheral wire-receiving groove 2 and produced of any suitable non-conducting or insulating material.

As indicated in the drawings, the central bore or opening 3 of the insulator-body is provided throughout its length with an offset or lateral recess 4. With the outer end of the insulator-body, of less circumference than the latter, and about the central opening 3 I form a short outward extension or boss 5, the outer end or face of which is beveled or inclined to produce the substantially cam-shaped insulator termination shown.

6 represents the supporting-pin of my improved insulator, which is preferably formed of malleable iron, although any suitable material may be employed therefor. This pin, as indicated in the drawings, has the greater portion of its body triangular in cross-section, while its outer end portion is reduced to form a rounded pin extension 6^a, and adjacent to the outer end of this pin extension I form an

outwardly-extending key-lug 7. The pin 6 is adapted to be driven into the coal-wall or other suitable support at the desired point or angle, after which the insulator-body 1 is connected therewith and supported thereon by slipping said insulator-body over the pin extension 6^a, the lug 7 thus being made to travel through the lateral recess 4 or keyway of said insulator until said lug is on the outer side of and adjacent to the more shallow portion of the insulator extension 5. In order to fix the insulator in its position on the pin, said insulator-body is now rotated, causing the inclined surface of the extension 5 to move against the pin-lug 7 until the insulator is firmly clamped between said lug and the shoulder formed at the junction of the pin-body 6 and its extension 6^a.

By the above-described construction and operation it will be seen that exceedingly simple means are provided for connecting with or disconnecting the insulator-body from the supporting-pin and that the construction of my improved insulator and its support is such as to permit said parts being produced at a comparatively low cost.

While it is obvious that my improved insulator is particularly adapted for use in carrying the electric wires of a mine, it will readily be understood that the same may be applied for the support of wires on poles or pole cross-arms, if desired.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a wire-insulator, the combination with a pin 6 having a reduced extension 6^a, said extension being provided with a projecting locking-lug 7, of an insulator-body 1 having a central opening therethrough adapted to receive said pin extension 6^a and an internal keyway 4 communicating with said central opening and an inclined boss or extension 5 on the outer end of said insulator, substantially as specified.

WILLIAM C. BENBOW.

In presence of—

C. C. SHEPHERD,
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