

E. T. BANES.
TELEPHONE CORD PROTECTOR.
APPLICATION FILED JAN. 23, 1908.

912,778.

Patented Feb. 16, 1909.

Fig. 1.

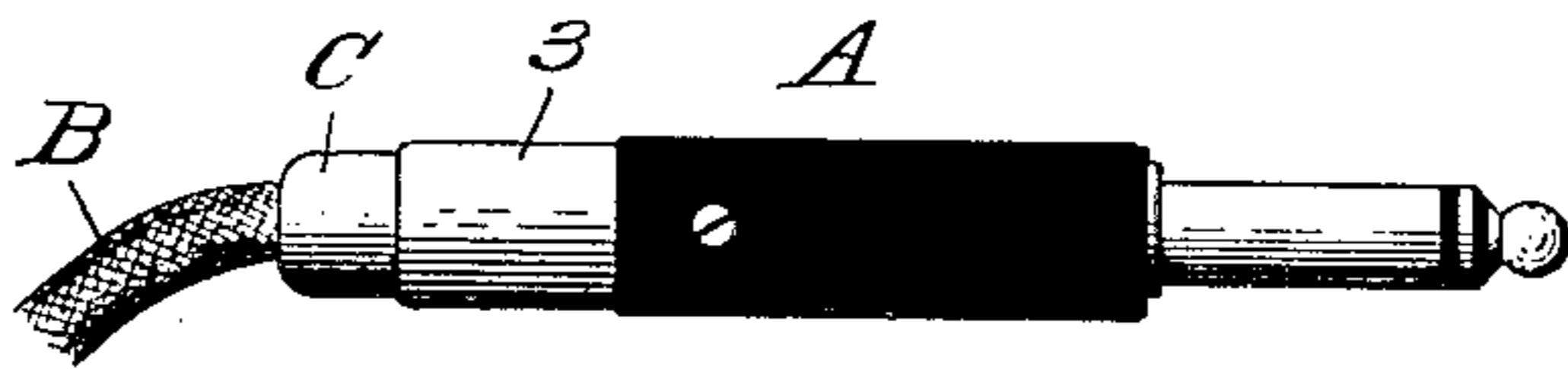


Fig. 2.

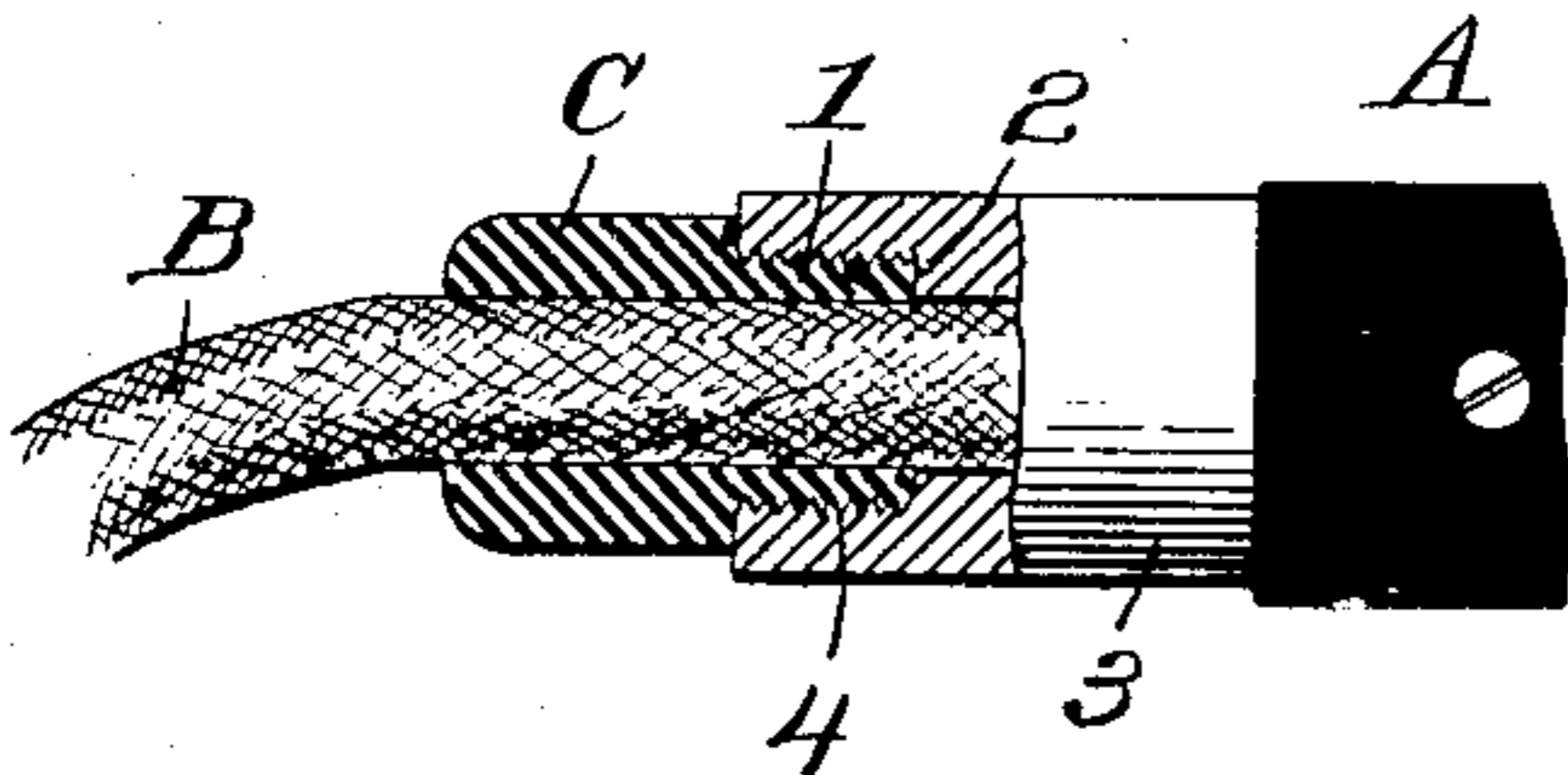


Fig. 3.

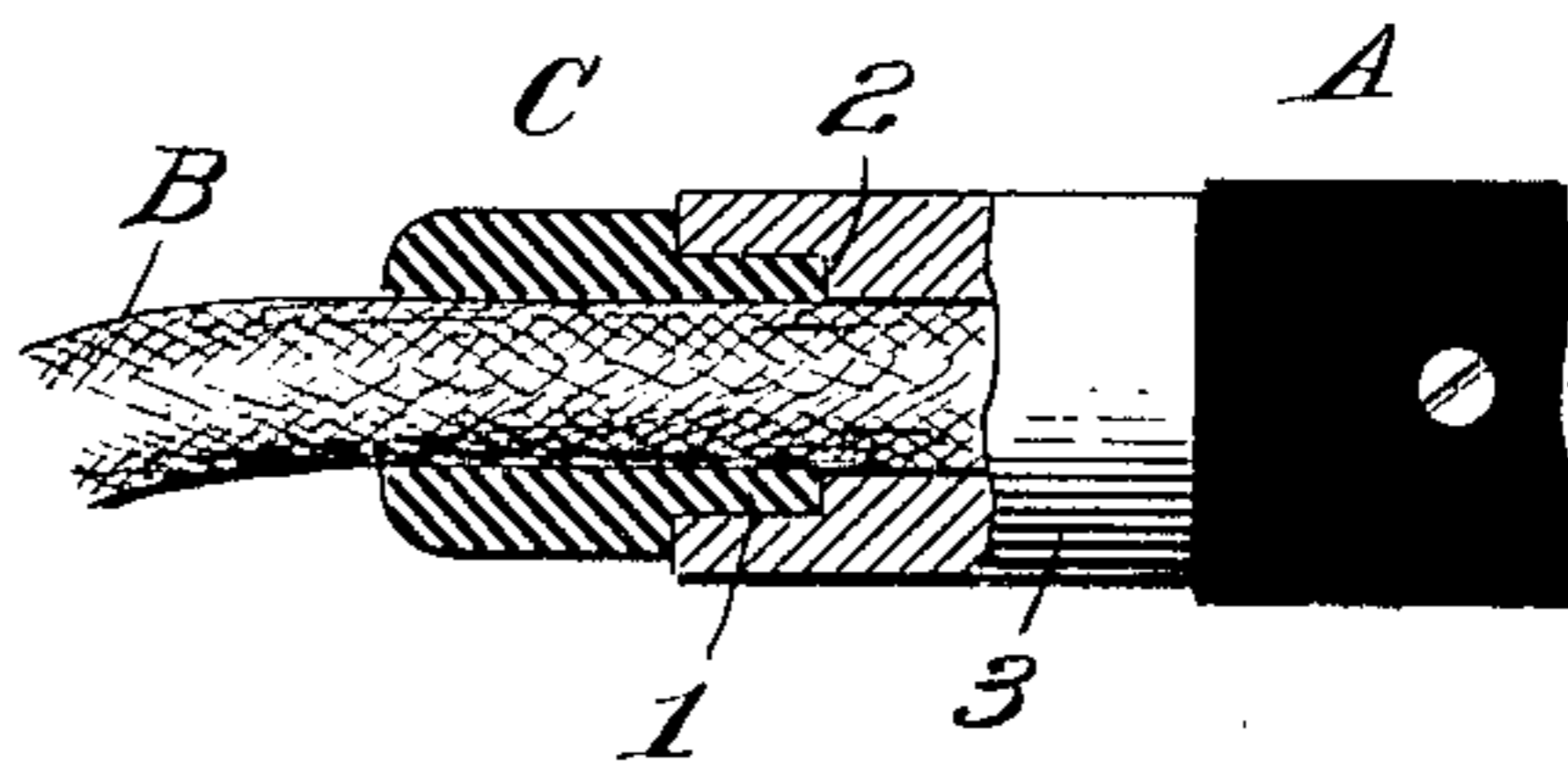


Fig. 4.

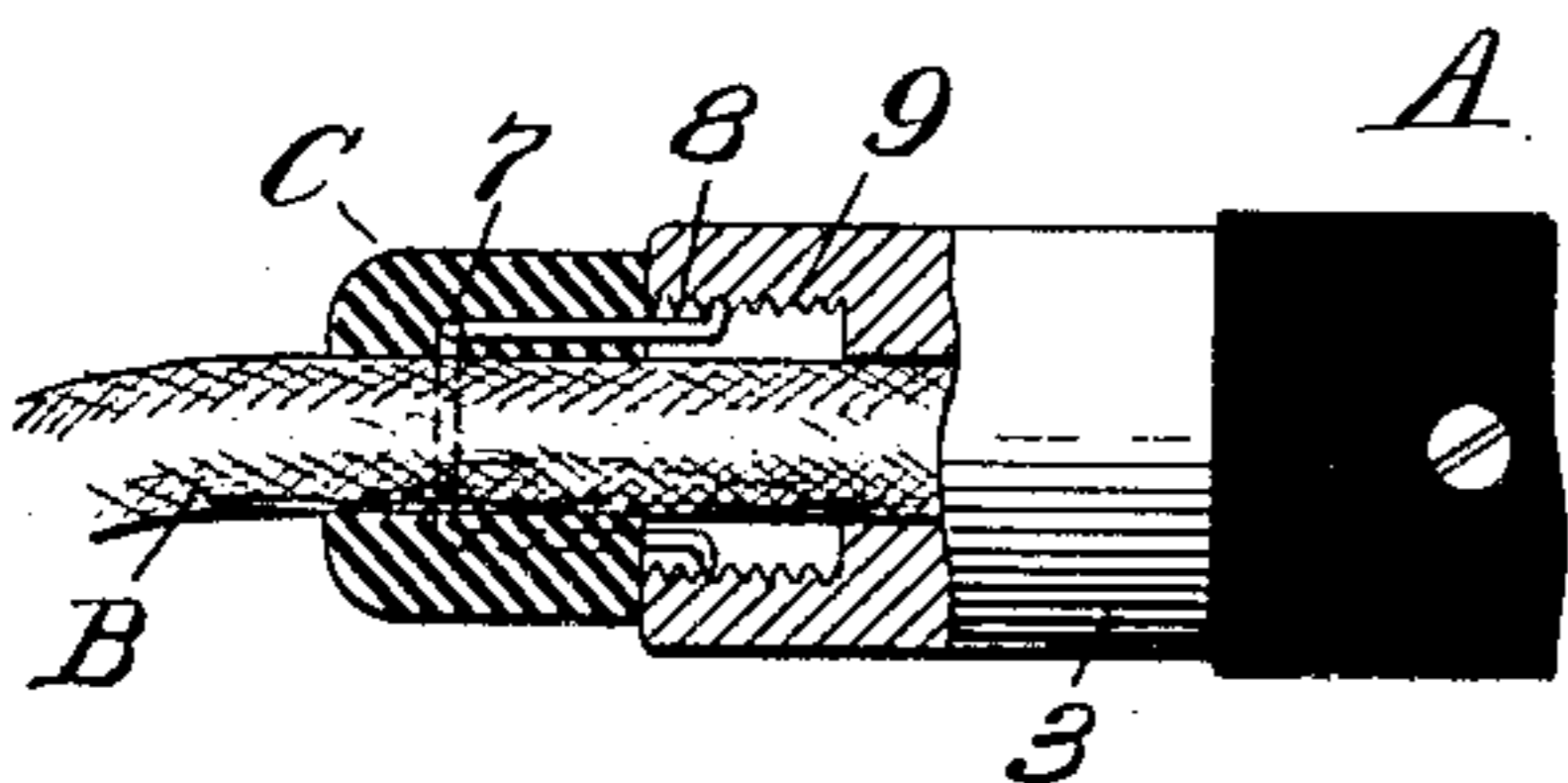


Fig. 5.

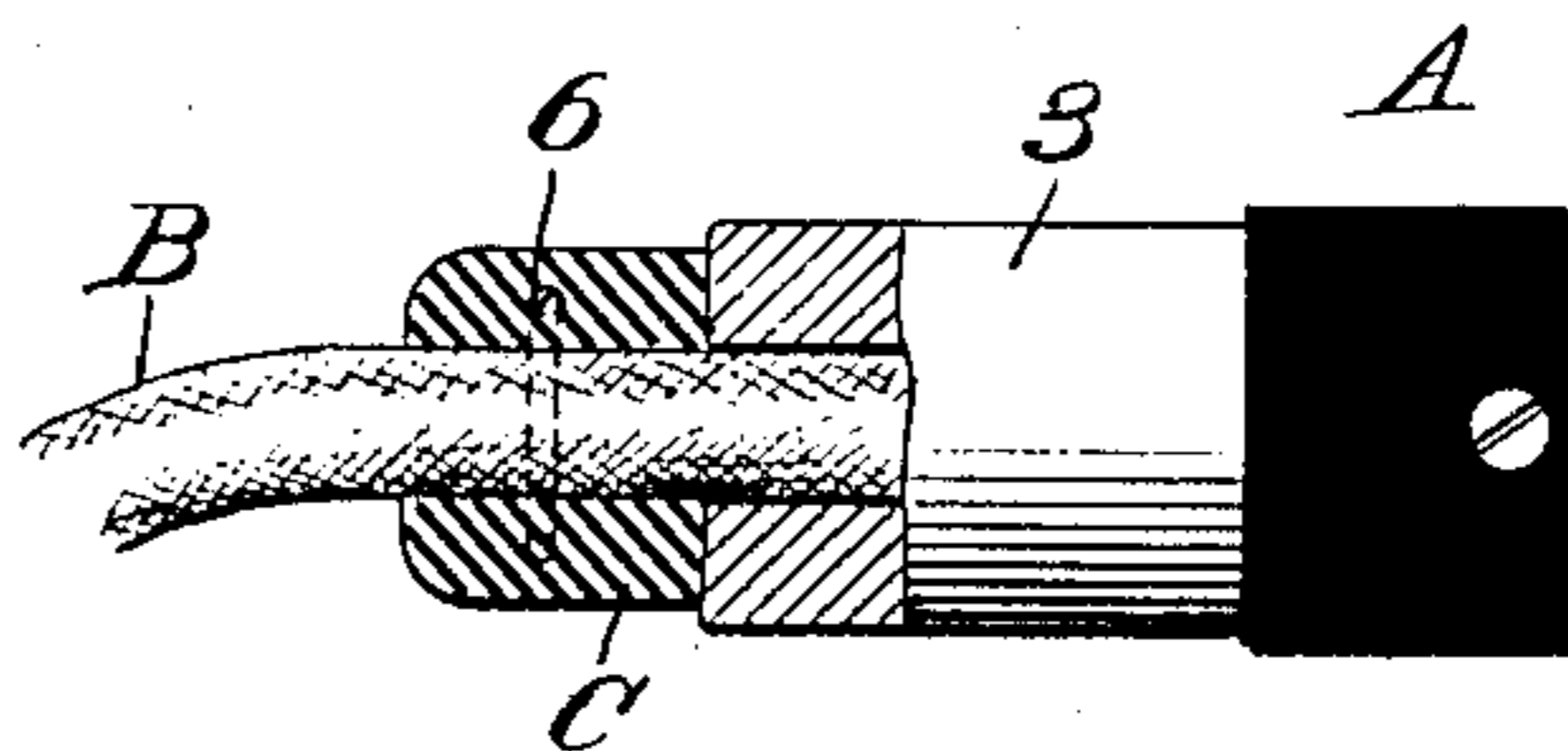


Fig. 6.

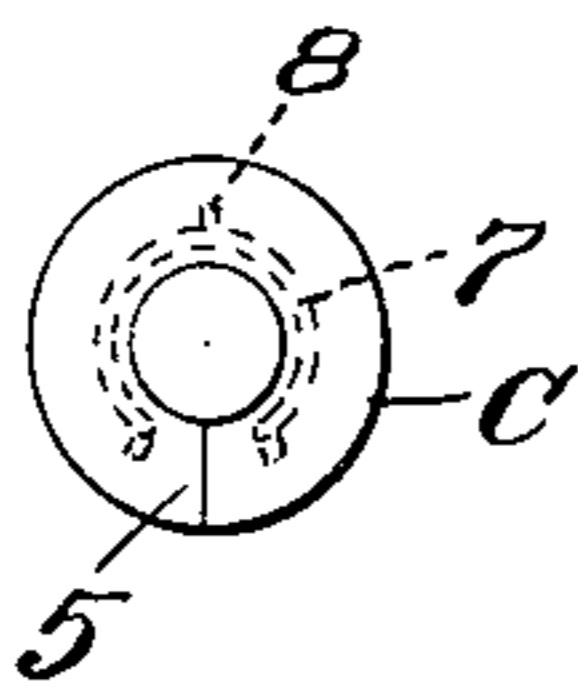


Fig. 10.

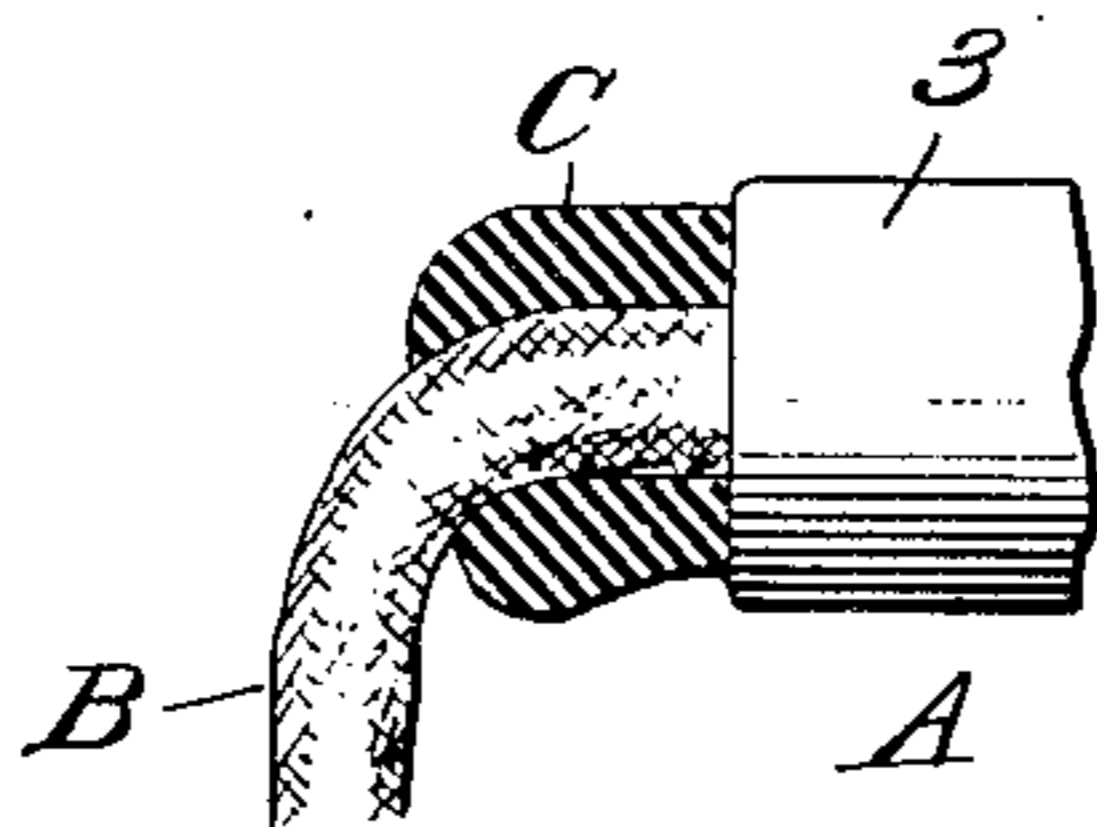


Fig. 7.

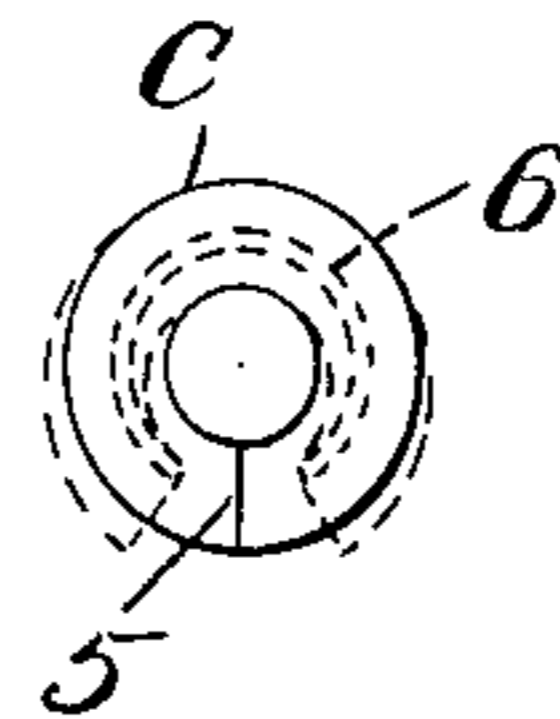


Fig. 8.

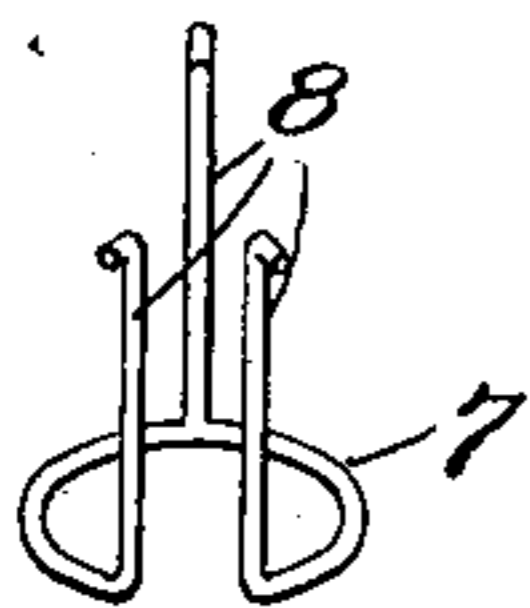


Fig. 11.

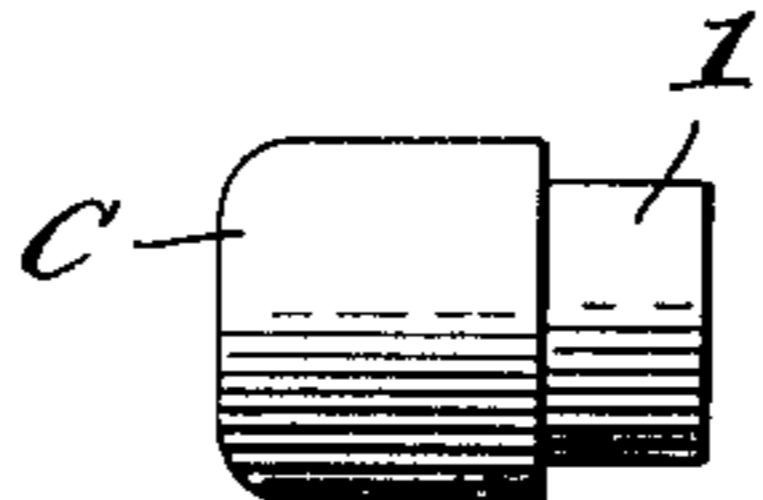
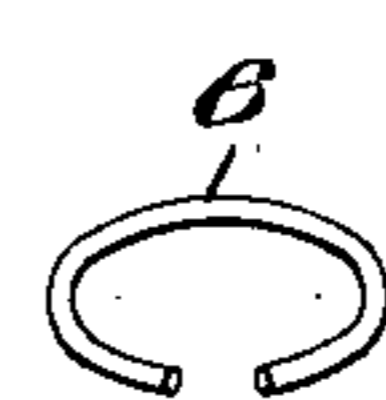


Fig. 9.



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UNITED STATES PATENT OFFICE.

EDWARD T. BANES, OF PHILADELPHIA, PENNSYLVANIA.

TELEPHONE-CORD PROTECTOR.

No. 912,778.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed January 23, 1908. Serial No. 412,281.

To all whom it may concern:

Be it known that I, EDWARD T. BANES, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Telephone-Cord Protectors, of which the following is a specification.

This invention relates to a protecting device intended for use in connection with jack plugs for telephone switch-boards for the purpose of preventing wear of the plug cords at the points of connection between the cords and the plugs.

The invention has for one of its objects to provide a device of this character which is of comparatively simple and inexpensive construction, and which can be readily applied to jack plugs of ordinary design.

A further object of the invention is the provision of a protecting device in the nature of a sleeve or bushing of resilient material which prevents the cord from wearing by contact with the metal part of a plug, as when the plug is inserted in a jack and the cord drawn taut by its usual retracting weight, the resiliency of the sleeve serving to cushion the shock when the plug is released by the operator and dropped upon the table of the switch-board, and also serving to reduce noise by the striking of the plug upon the table.

Another object of the invention is to so design the protecting device that it can be used as an attachment and be readily applied to telephone cords already in use without detaching the cord from the plug.

With these objects in view and others as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates certain of the embodiments of the invention, Figure 1 is a side elevation of a jack plug and cord with the protecting device applied thereto. Figs. 2 to 5 inclusive, are fragmentary sectional views of various modifications of the protecting device. Fig. 6 is an end view of the device shown in Fig. 4. Fig. 7 is a similar view of the protector shown in Fig. 5, the protector being illustrated as spread open, by the dotted lines. Fig. 8 is a perspective view of the combined reinforcing

and attaching device for the form of protector shown in Fig. 4. Fig. 9 is a perspective view of the reinforcing device used in connection with the protector illustrated in Fig. 5. Fig. 10 is a detail view illustrating the position of the rubber or resilient protector when the cord is under tension, due to its retracting weight. Fig. 11 is a side elevation of the form of protector shown in Fig. 3.

Similar reference characters are employed to designate corresponding parts throughout the several views.

Referring to the drawing, A designates a plug for a jack switch used in connection with an ordinary cord circuit of a telephone exchange or switch-board, the plug being of any approved design and connected with the cord B in the usual manner. Applied to the cord B at the point where it enters the plug is the protecting device C which, in the present instance, is illustrated as a sleeve or bushing of soft rubber or the like.

In the forms shown in Figs. 2, 3 and 11, the protector has its inner end reduced to form a collar portion 1 that is adapted to enter the counterbore 2 of the metallic part or sleeve 3 of the plug A, and this reduced portion may be secured in position by threads 4 on the part 3, as shown in Fig. 2, or it may be cemented to the metallic part 3 and also to the cord B, so as to firmly secure the protector in position. The unsplit form of the protector, just described, is preferably used by manufacturers in making the cords and plugs.

In order to apply the protectors to plugs and cords already in use, the form is preferred which can be readily applied to the cord without requiring the latter to be detached from its plug. To this end, the protector is slit longitudinally at 5, as shown in Figs. 6 and 7, so that the sleeve or bushing can be spread open as indicated by dotted lines in the latter figure for enabling the protector to be assembled over the cord. It may be desirable to employ a split ring of spring metal to form a reinforcing or clamping means to securely hold the split sleeve in place. In the protector shown in Figs. 5 and 7, a simple ring 6 is embedded in the rubber with its ends disposed at opposite sides of the slit 5 so that the protector can be spread open, and to hold the protector in place it may be secured to the cord by cement or the like. The reinforcing or clamp-

ing ring 7 shown in Figs. 4 and 8, is provided with spring gripping members 8 that have their free ends extending out of the protector and bent laterally so as to grip the internal threads 9 of the metal part 3 of the plug; as shown in Fig. 4.

A protecting device of this character serves to prevent the cord from bearing against the metal part or butt end of the sleeve 3 of the plug when the latter is in its jack, and the cord is under tension due to its usual retracting weight. The covering of the cord is thus prevented from wearing so that danger of the conductors of the cord short-circuiting on the sleeve of the plug is effectively prevented. Furthermore, the protector forms a cushioning device or buffer for the plug when the latter is released by the operator and permitted to drop upon the table of the switch-board, and it also reduces the sound usually occasioned by the plugs striking on the table when permitted to drop by the operator.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claims.

Having thus described the invention, what I claim is:—

1. The combination of a telephone jack plug, a flexible conductor cord attached to the jack, and a sleeve of soft rubber surrounding the cord at a point where the latter enters the plug and arranged with its internal surface in frictional contact with the cord

by the contractile tendency of the sleeve and secured to the jack to assist in retaining the sleeve in place.

2. The combination of a telephone jack plug, a cord attached thereto, and a combined protecting and cushioning device in the form of a sleeve disposed around and gripped on the cord at the inner end of the plug and bearing directly on the latter, said device being in the form of a resilient body of current non-conducting material.

3. The combination of a telephone jack plug, a cord attached thereto, a sleeve of resilient material applied around and gripped on the cord at the inner end of the plug, and means permanently connected with the sleeve for attaching the latter to the plug.

4. The combination of a telephone jack plug, a cord attached thereto, and a split sleeve of elastic material on the cord at the inner end of the plug.

5. The combination of a telephone jack plug, a cord attached thereto, a split sleeve of elastic material on the cord at the inner end of the plug, a reinforcing member on the sleeve, and means for securing the sleeve in place.

6. An attachment for telephone cords comprising a split sleeve of elastic material.

7. An attachment for telephone cords comprising a split sleeve of elastic material, and a spring reinforcing member embedded in the sleeve.

8. An attachment for telephone cords comprising a split sleeve of yielding material, an openspring ring embedded in the material, and attaching members on the ring projecting from the sleeve.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD T. BANES.

Witnesses:

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JOHN A. HEYSER.