

No. 836,805.

PATENTED NOV. 27, 1906.

A. B. DOZIER.
TELEPHONE OR SWITCHBOARD PLUG.
APPLICATION FILED MAY 10, 1904.

Fig. 6.

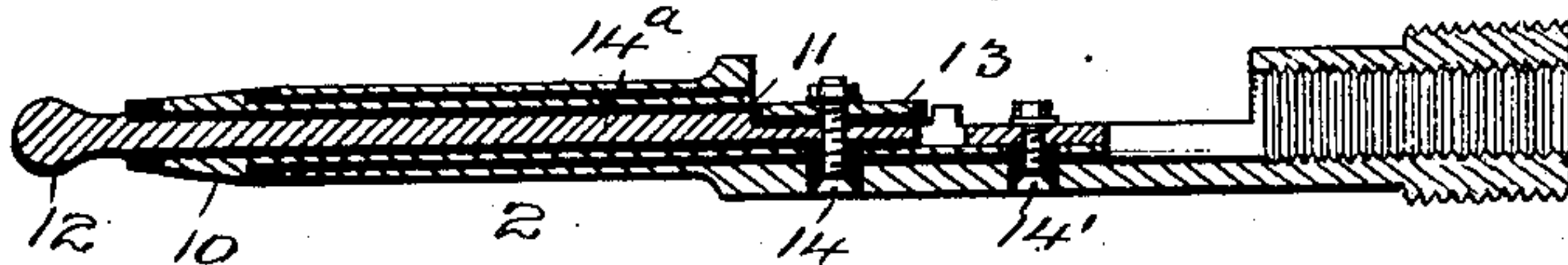


Fig. 1.

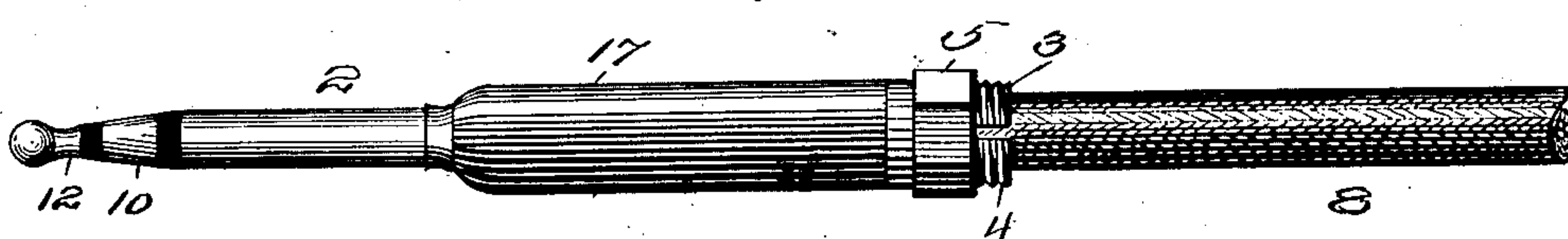


Fig. 2.

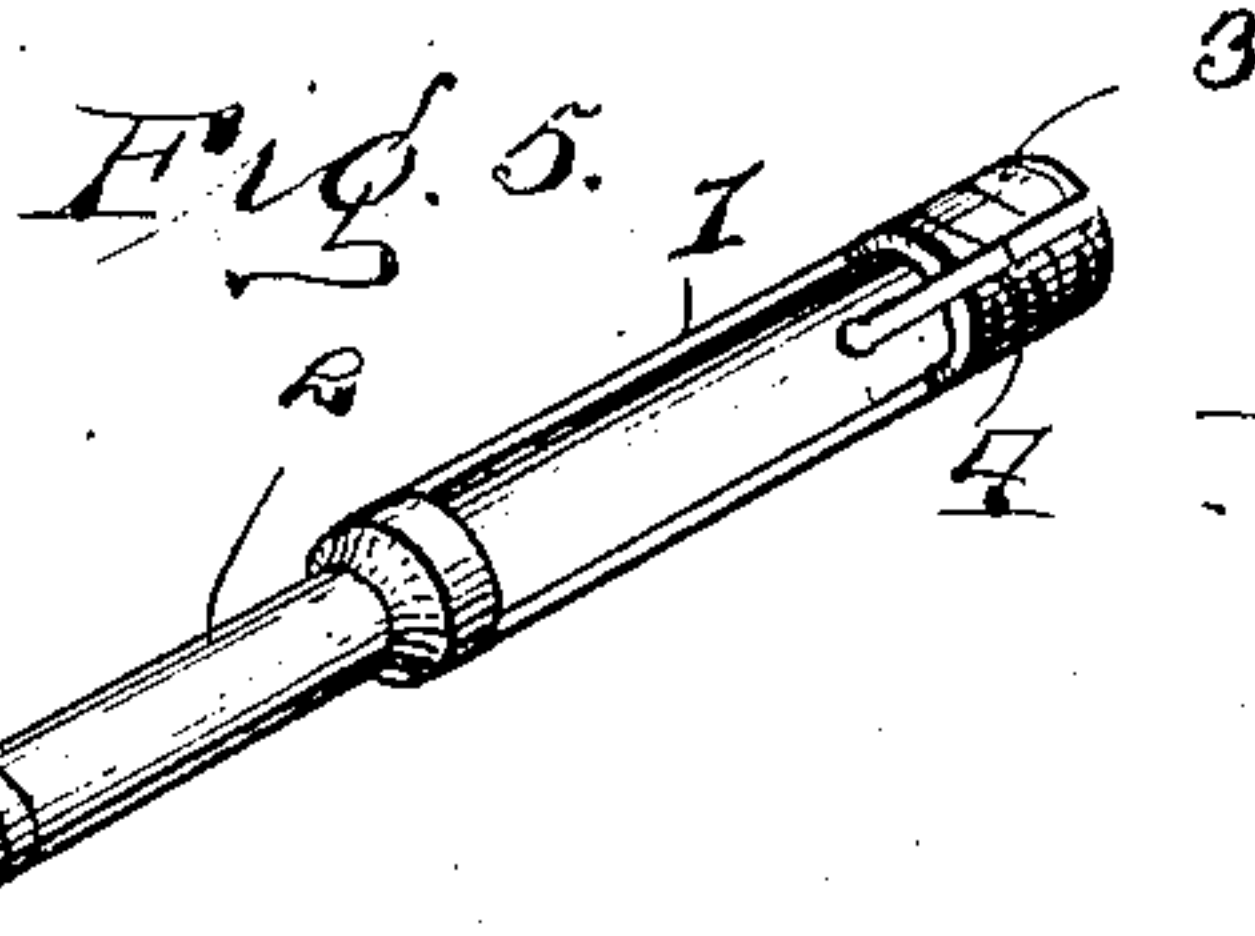
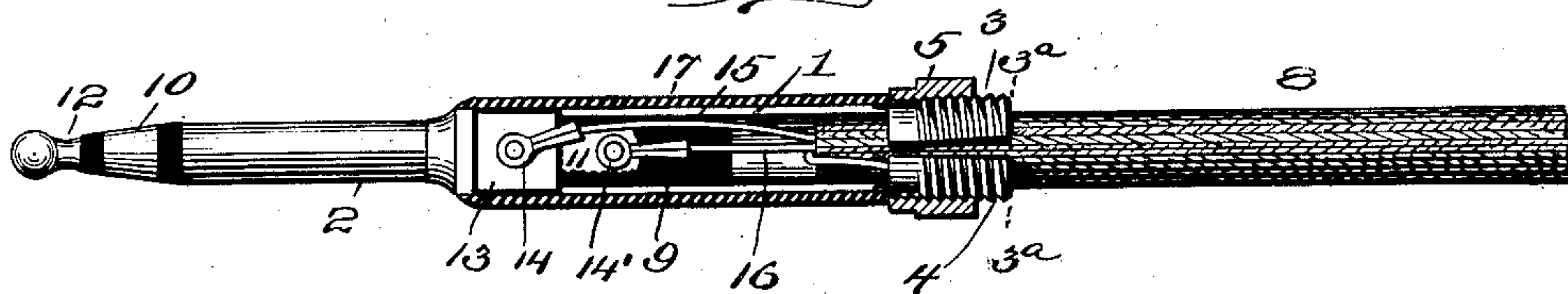


Fig. 3.

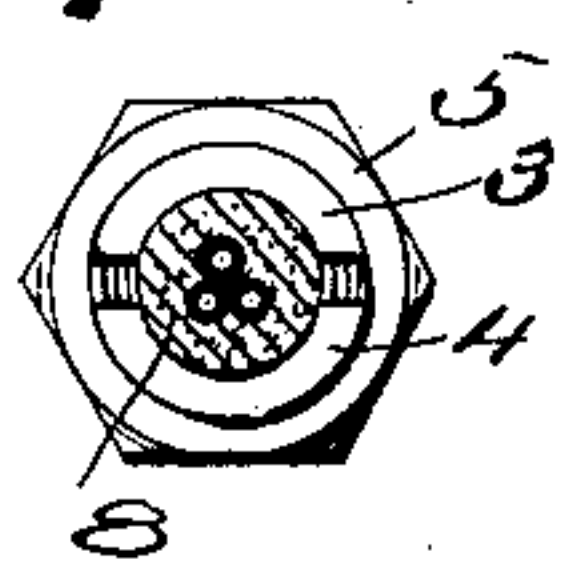
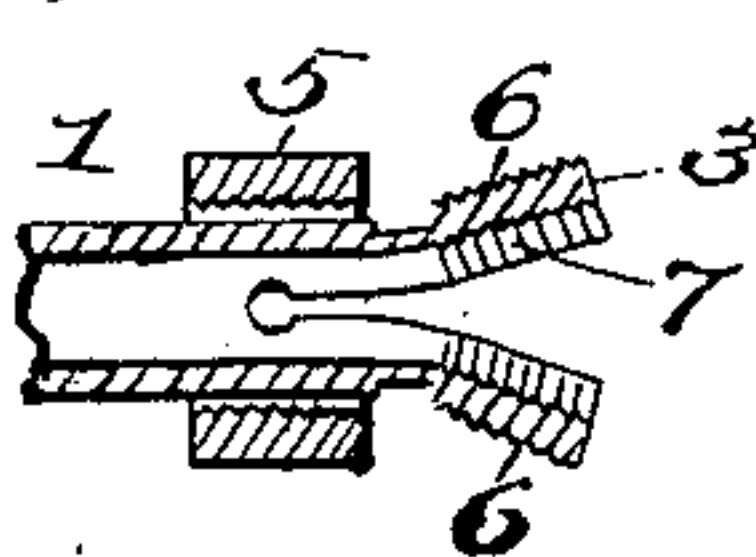


Fig. 4.



Witnesses

J. M. Fowler Jr.
Edwin C. Crooman.

Inventor

Abra B. Dozier

By

Beall & Fenwick

his Attorneys

UNITED STATES PATENT OFFICE.

ALVA BATTIE DOZIER, OF TAYLOR, TEXAS.

TELEPHONE OR SWITCHBOARD PLUG.

No. 836,805.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed May 10, 1904. Serial No. 207,301.

To all whom it may concern:

Be it known that I, ALVA BATTIE DOZIER, a citizen of the United States, residing at Taylor, in the county of Williamson and State of Texas, have invented new and useful Improvements in Telephone or Switchboard Plugs, of which the following is a specification.

This invention relates to improvements in connecting-plugs adapted to be used with spring-jacks of telephone-switchboards, being particularly applicable to connecting-plugs having two or more separate insulated contact portions.

The object of the invention is to construct a terminal plug with means for positively retaining a cord comprising a flexible cover and a plurality of conductors assembled therewith in a rigid position with the body portion of said plug.

Another object of the invention is to provide integral clamping means formed upon the casing of the terminal plug for retaining a flexible electrical cord between said clamping means when said cord is in a fixed position within the plug.

With these and other objects in view the invention consists in the novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the claims hereto appended.

In the drawings, Figure 1 is a side elevation of a terminal plug provided with my improvement and having a flexible electrical cord retained in an assembled position therewith. Fig. 2 is a similar view to Fig. 1, a portion of the plug being provided with clamping means being shown in section. Fig. 3 is a transverse sectional view taken on lines 3^a 3^a, Fig. 2. Fig. 4 is a fragmentary longitudinal sectional view of the plug, showing the integral clamping means ready for the insertion of an electrical cord between the same. Fig. 5 is a perspective view of the semicylindrical casing, which is provided with the integral cylindrical portion 2 upon one end and with the semicylindrical jaws upon the opposite end. Fig. 6 is a vertical longitudinal sectional view of the device depicted in Fig. 1.

Referring to the drawings by reference-numerals, 1 designates a semicylindrical or segmental shell or casing, which is provided with an integral cylindrical casing 2, secured at one of its ends, and at its opposite end

there is provided a plurality of integral resilient clamping members or jaws 3 and 4. The clamping members constitute a cylindrical sectional casing when pressed together by the locking-nut 5, as is shown in Figs. 1 and 2 of the drawings. The said clamping members are provided with a screw-threaded periphery 6, which is constructed for the purpose of permitting of the adjustment of the locking-nut 5 longitudinally thereon.

The members 3 and 4 are provided with a roughened or toothed surface 7 formed upon their inner wall for the purpose of engaging and gripping a flexible electrical cord 8 when said cord is placed between said members and the locking-nut is moved to a position upon said members 3 and 4, similarly to that shown in Figs. 1 and 2.

The casing 1, which is provided with a split end portion having the clamping members 3 and 4, is constructed of such materials as will permit of a resilient action of said clamping members. It will be obvious that such resilient action should not be of any great degree, as the metal employed must be of sufficient rigidity to insure of an efficient and practical device when all the parts are in an assembled position.

The plug is constructed with three contact portions 2, 10, and 12. The semicylindrical casing 1 is formed of metal, and a prolongation of the casing constitutes the contact-surface 2. Within the semicylindrical casing and the prolongation thereof is positioned a tubular casing 11, which is provided with a binding-screw 14'. The casing 11 is provided with the contact-surface 10. Positioned within the tubular casing 11 is a solid core 14^a, which is provided upon its outer end with contact-surface 12 and near its opposite end with binding-screw 14. The core 14^a, casing 11, the prolongation 2, as well as the semicylindrical casing 1, are spaced apart by suitable insulating material. An insulated block 13 is positioned upon the binding-screw 14, constituting a binding-post, and rests upon the flat edges of the semicylindrical casing. It will be noted that the semicylindrical casing permits of the easy adjustment or threading of the cord 8 through the resilient jaws and the securing of the conductors 15 and 16 to the binding-screws 14 and 14', respectively.

After the conductors have been secured to their respective binding-posts, member 17 being removed from casing 1 and clamping-

nut 5 being positioned as shown in Fig. 4, the nut 5 is moved into engagement with the screw-threaded surface 6 of the clamping members 3 and 4, and by causing rotation of the nut 5 the same will ride over the members 3 and 4 and as said member advances it will bring the clamping members into an approximately parallel position, such position being controlled according to the position of the nut 5 upon said clamping members. It will be obvious that if the nut 5 is moved to the extreme outer end of members 3 and 4 said members will be retained in a parallel position. By the closing of the split end portion of casing 1 together the teeth or gripping-surface 7 formed thereon will be caused to engage the removable flexible member 8, which is secured within the split portion of casing 1. As soon as nut 5 is removed from the end portion provided with the clamping members said members will move apart sufficiently to permit of the ready removal of cord 8 from between said members.

From the foregoing description it is to be noted that the integral structure of the semicylindrical casing and the resilient jaws permit of the free adjustment of the cord 8 and the terminals within the casing, as well as the attachment of said terminals to the binding-screws, for the reason that the semicylindrical casing affords ample room for the operator to fix the terminals upon the binding-post before the covering is positioned as shown in Fig. 1, and as the resilient jaws spread apart, Fig. 4, when the locking-nut 5 is not positioned thereon the cord 8 can be adjusted between the jaws freely before the conductors are secured to the binding-screws, and after the securing of said conductors is accomplished cord 8 can be easily tightened and the jaws clamped thereon by threading the nut 5 upon said jaws. It is also to be noted that the flat block 13 is easily positioned upon the edges of the semicylindrical casing.

Owing to the construction of these clamping means, the strain upon the conductors at their end portions, which are secured to the binding-posts or plugs, is entirely removed therefrom and is caused to be exerted upon the split end portion of the casing 1.

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

1. In a device of the character described, the combination of a semicylindrical casing, integral resilient jaws secured thereto, said jaws provided with toothed, inner and screw-

threaded outer surfaces, and an adjusting-nut removably mounted upon said jaws.

2. In a device of the character described, the combination of a semicylindrical casing provided with an integral cylindrical extension, said casing having integral resilient semicylindrical jaws, each of said jaws provided with a roughened, inner surface, and rotatable means removably mounted upon said jaws for closing the same together.

3. In a device of the character described, the combination of a semicylindrical casing provided with an integral, cylindrical, contact-surface formed upon one end and with a pair of resilient semicylindrical jaws of the same thickness formed integral upon the opposite end of said casing, the longitudinal edges of said jaws positioned in a plane at right angles to the horizontal plane in which the edges of the semicylindrical casing is formed, when said jaws are in their normal position for clamping a cord, and longitudinal, adjustable, locking means positioned upon said jaws.

4. In a device of the character described, the combination with a casing, of a pair of resilient semicylindrical jaws secured to said casing, each jaw exteriorly screw-threaded, the screw-threaded portions of said jaws formed upon their outer ends, the outer screw-threaded ends of said jaws of the same thickness throughout their entire length, a locking member positioned upon said semicylindrical casing and capable of longitudinal adjustment upon said jaws for drawing the same into parallel position, so as to place their longitudinal edges in a plane at right angles to the horizontal plane in which the edges of the semicylindrical casing are formed, for clamping a cord.

5. In a device of the character described, the combination of a semicylindrical casing provided with an integral, cylindrical, tapering portion formed upon one end and with semicylindrical jaws formed upon its opposite end, said jaws provided with a gripping portion formed upon their inner surfaces and with a threaded portion formed upon their outer surfaces, and a nut adapted to be positioned upon said jaws for drawing the same into substantially a parallel position for clamping the cord.

Subscribed by me this 26th day of April, 1904.

ALVA BATTIE DOZIER.

Witnesses:

C. C. HOOPER,

J. H. GRIFFITH.