Dec. 4, 1928. 1,694,056

C. CALKINS

LOCKING PLUG FOR EXTENSION CORDS

Filed June 16, 1927

Fig. 2

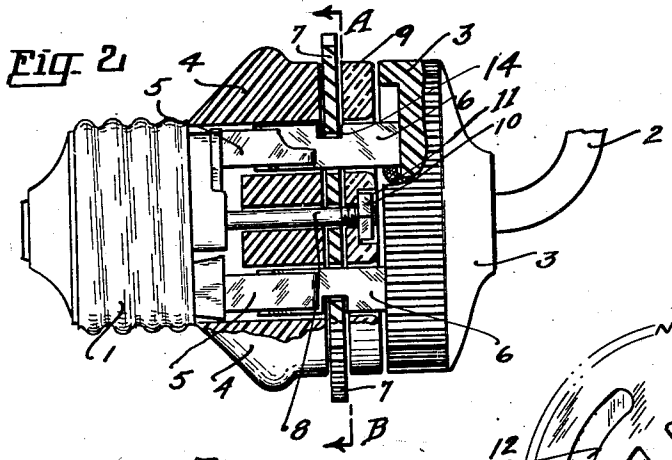


Fig. 3

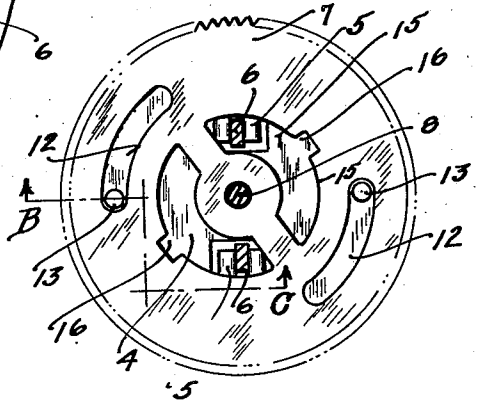
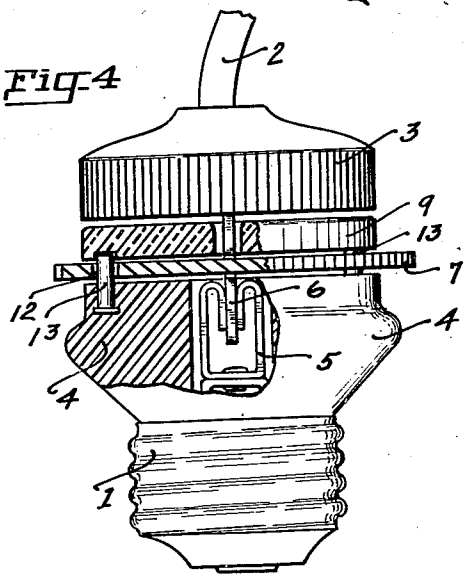


Fig. 4



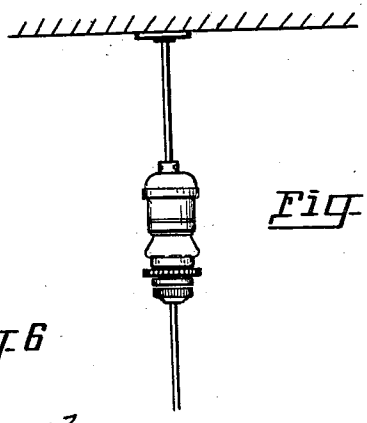


Fig. 1

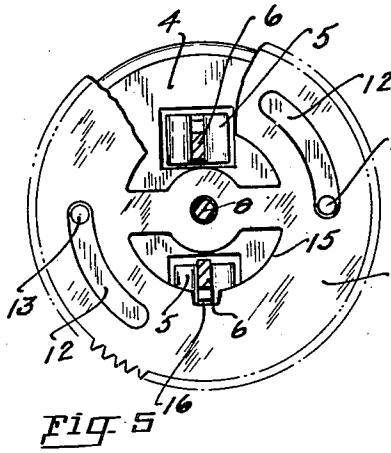
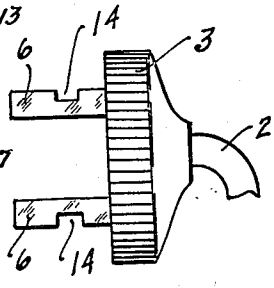


Fig. 5

Fig. 6



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UNITED STATES PATENT OFFICE.

CECIL CALKINS, OF ALBANY, OREGON.

LOCKING PLUG FOR EXTENSION CORDS.

Application filed June 16, 1927. Serial No. 199,334.

My invention relates to extension cords, electric connections, and similar and like devices wherein it is necessary to lock the connection when made, and to prevent the accidental breaking of the connection when made.

A further object of my invention consists in providing simple and efficient means for the locking of electric connections and more particularly those wherein an extension cord is secured to an electric light socket of the push and pull type and wherein the same may then be locked to prevent the same becoming disengaged.

A still further object of my invention consists in providing a locking plug for extension cords, as ordinarily used by mechanics and others and wherein the mechanic using the same may be located in a position wherein it is very difficult of access and difficult to return from the work involved to reconnect the connection if broken and wherein the movement of the cord has a tendency to cause a disengagement of the extension cord secured to the socket.

My invention consists primarily of the socket type, as ordinarily used having disposed therein a revolvable disk permitting the locking of the two together when the connection has been completed and providing further means within the disk to predetermine the amount of rotation that may be imparted thereto and also providing means within the disk associated with the same to permit of the disengagement of the locking plug.

With these and incidental objects in view, the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in the appended claims, and a preferred form of embodiment of which is hereinafter shown with reference to the drawings which accompany and form a part of this specification.

In the drawings:

Fig. 1 is a side elevation of one of my new and improved locking plugs for extension cords, shown in position within the electric circuit.

Fig. 2 is a longitudinal section of the assembled device.

Fig. 3 is a sectional end view, taken on line AB of Fig. 2, looking in the direction indicated, the same being made to show the extension plug in locked position.

Fig. 4 is a side elevation, partially in section, of the assembled device, the same being taken on line BC of Fig. 3.

Fig. 5 is a fragmentary, end, sectional view, taken on line AB of Fig. 2, but the same being made illustrating the assembled device in unlocked position.

Fig. 6 is a side elevation of the assembled male end of the extension cord.

Like reference characters refer to like parts throughout the several views.

1 is the threaded end of the extension cord, adapted to threaded engagement with the lamp socket of the electric connection and 2 is an extension cord secured to the male end 3 of the extension cord. 4 is the body portion of the threaded end of the plug having disposed therein electric connections 5 into which the extension ends 6 of the male end 3 of the extension cord is made to engage. The male end 6 of the extension cord is inserted within the engagement connection 5 and completes the circuit when disposed therein. An annular disk 7 is disposed against the outer end 4 of the body portion and is rotatable about the central axis 8. The central axis 8 not only serves as the center of rotation of the annular element 7, but the same passes through the collar 9, which I have here shown to be substantially equal in outside diameter to the body portion 4, though the same may be made of a smaller diameter if found desirable and the outer end of the central axis 8 has disposed thereon a fastening element 10 disposed within the seat 11 and maintains a working relationship between the body portion 4 and the collar 9. Two arcuate slots 12, are disposed within the disk 7 and each has passed therethrough one of the pins 13, disposed within the body portion 4. The slots 12 limit the amount of rotation of the disk 7. Figs. 3 and 5 show the disk rotated to the full extent to the right and left respectively. The disk 7 has two diametrically opposite recesses 16, which are positioned above a connection 5 when the disk 7 has been rotated to the left, as shown in Fig. 5. When the recesses 16 are in this position relative to the connections 5, the extension ends 6 may readily be inserted in or withdrawn from the connections 5. To permit the rotating of the disk 7 after the ends 6 have been inserted within the connections 5, each end is provided with a recess 14 to afford a clearance between the edge of the disk 7, and which admits of its rotation to the right whereby the

edge portions of the disk enter the aforesaid recesses and thereby prohibit the withdrawal of the ends 6 from the respective connections.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form of embodiment herein shown and described, as it is susceptible of embodiment in various forms, all coming within the scope of the claims which follow.

What I claim is:

1. In a device of the class described, the combination with a plug composed of two separable members, one of said members having projecting extension ends, and the other member having connections within which the aforesaid extension ends are removably inserted, of a disk carried by the last mentioned member, said disk adapted for rotation, and means for limiting the extent of said rotation; each of said extension ends being provided with a groove spaced from the end thereof, said disk when rotated in one direction having portions entering the aforesaid grooves, and when rotated in the opposite direction having portions avoiding said grooves substantially as described.

2. In a device of the class described, the combination with a plug composed of two separable members, one of said members having projecting extension ends, and the other member having connections within which the aforesaid extension ends are removably inserted, of a disk carried by the last mentioned member adapted for rotary movement relative thereto, said disk being provided with a plurality of arcuate slots, a stationary pin projecting through each slot to afford means to limit the extent of rotation of said disk; each of said extension ends being provided with a groove spaced from the end thereof, said disk when rotated in one direction having portions entering the aforesaid grooves, and when rotated in the opposite direction having portions avoiding said grooves substantially as described.

3. In a device of the class described, the combination with a plug composed of two separable members, one of said members having projecting extension ends, and the other member having connections within which the aforesaid extension ends are removably inserted, of a disk carried by the last mentioned member adapted for rotary movement relative thereto, and means for limiting the extent of such rotation, each of said extension ends being provided with a groove spaced from the end thereof, said disk when rotated in one direction having portions entering the aforesaid grooves, and the said disk being provided with two diametrically opposite recesses in the edge thereof, which when said disk is rotated in the opposite direction, oppose the recesses in the extension ends thereby admitting of the withdrawal of the extension ends from the connections substantially as described.

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