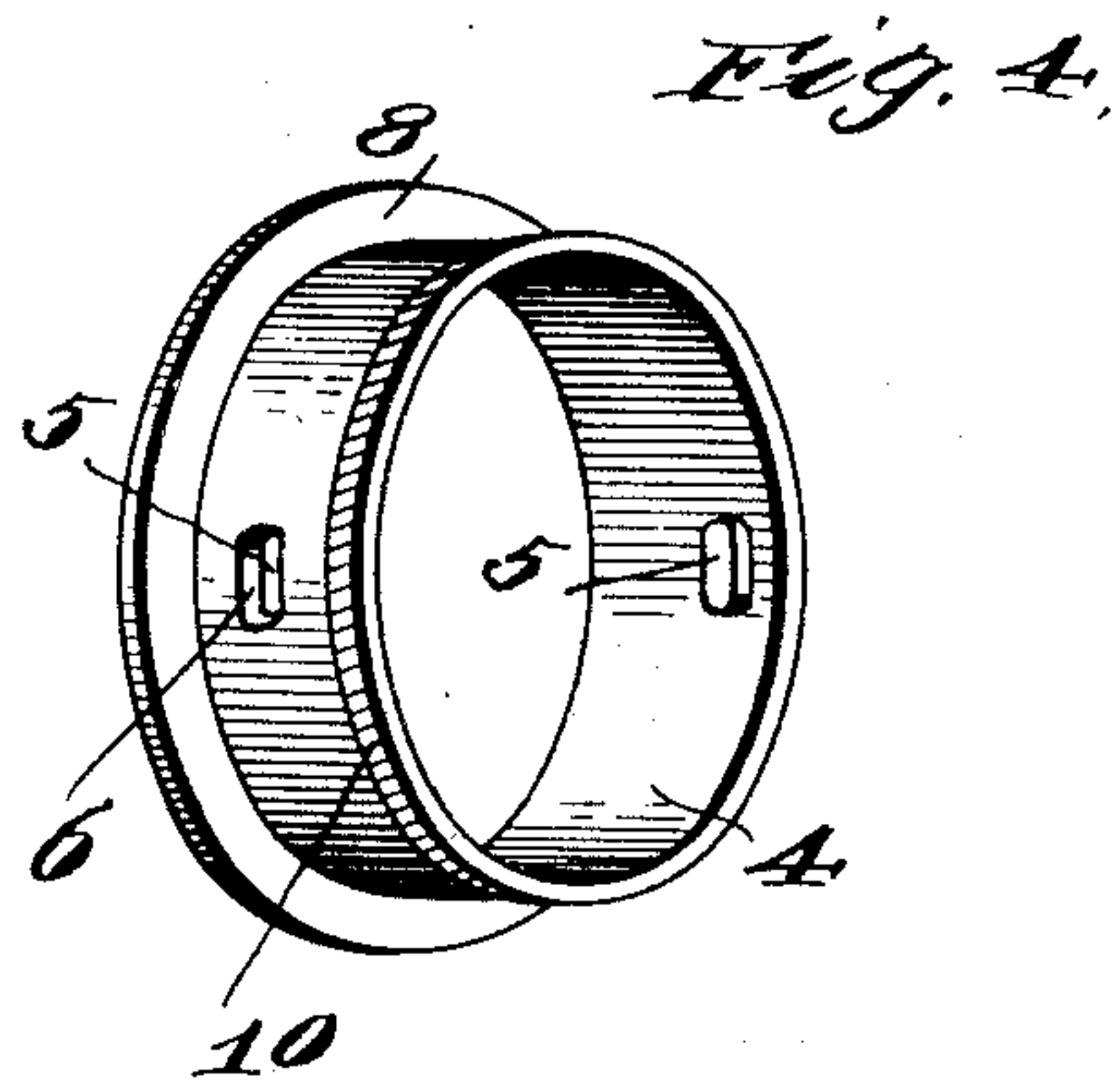
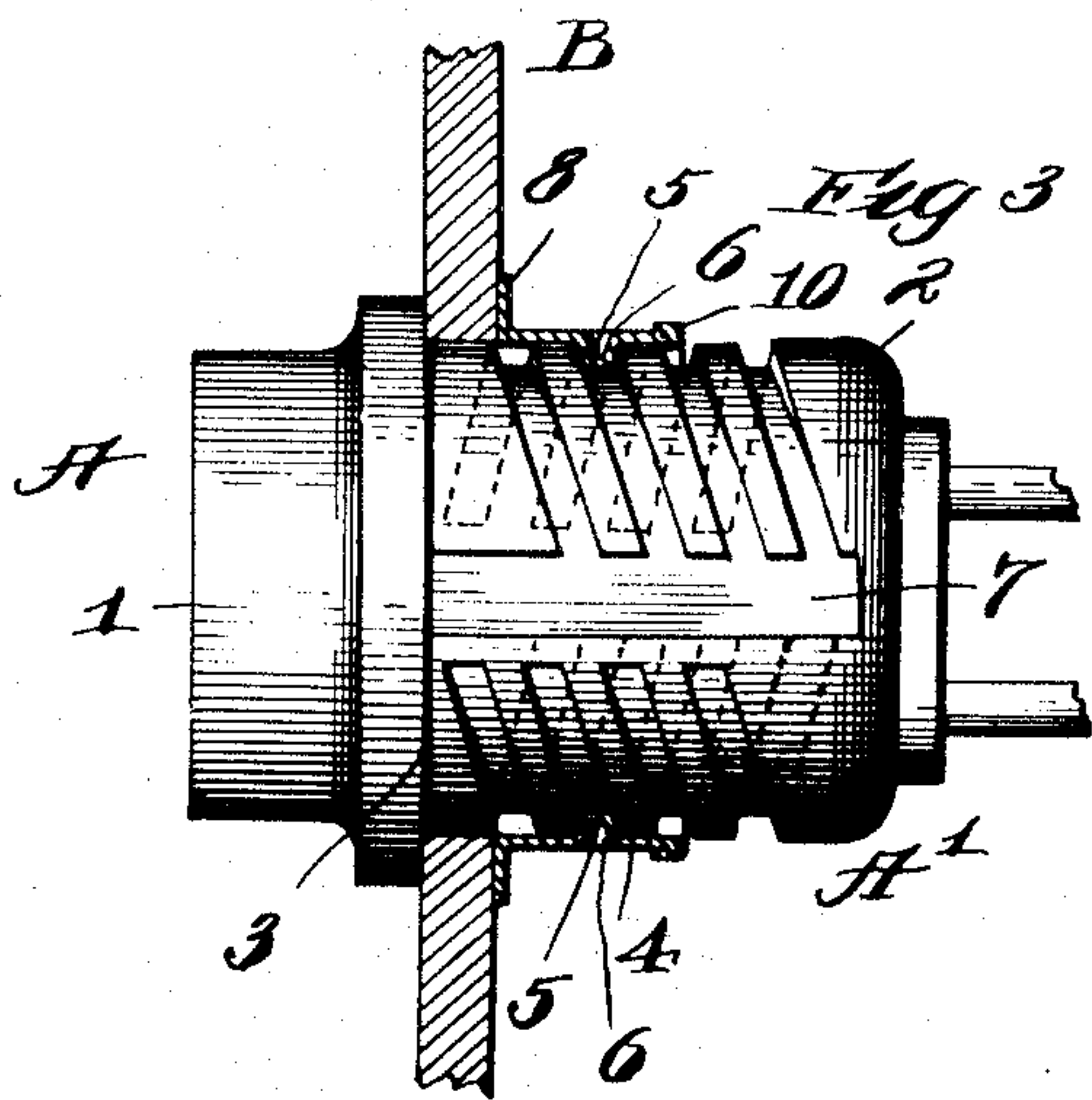
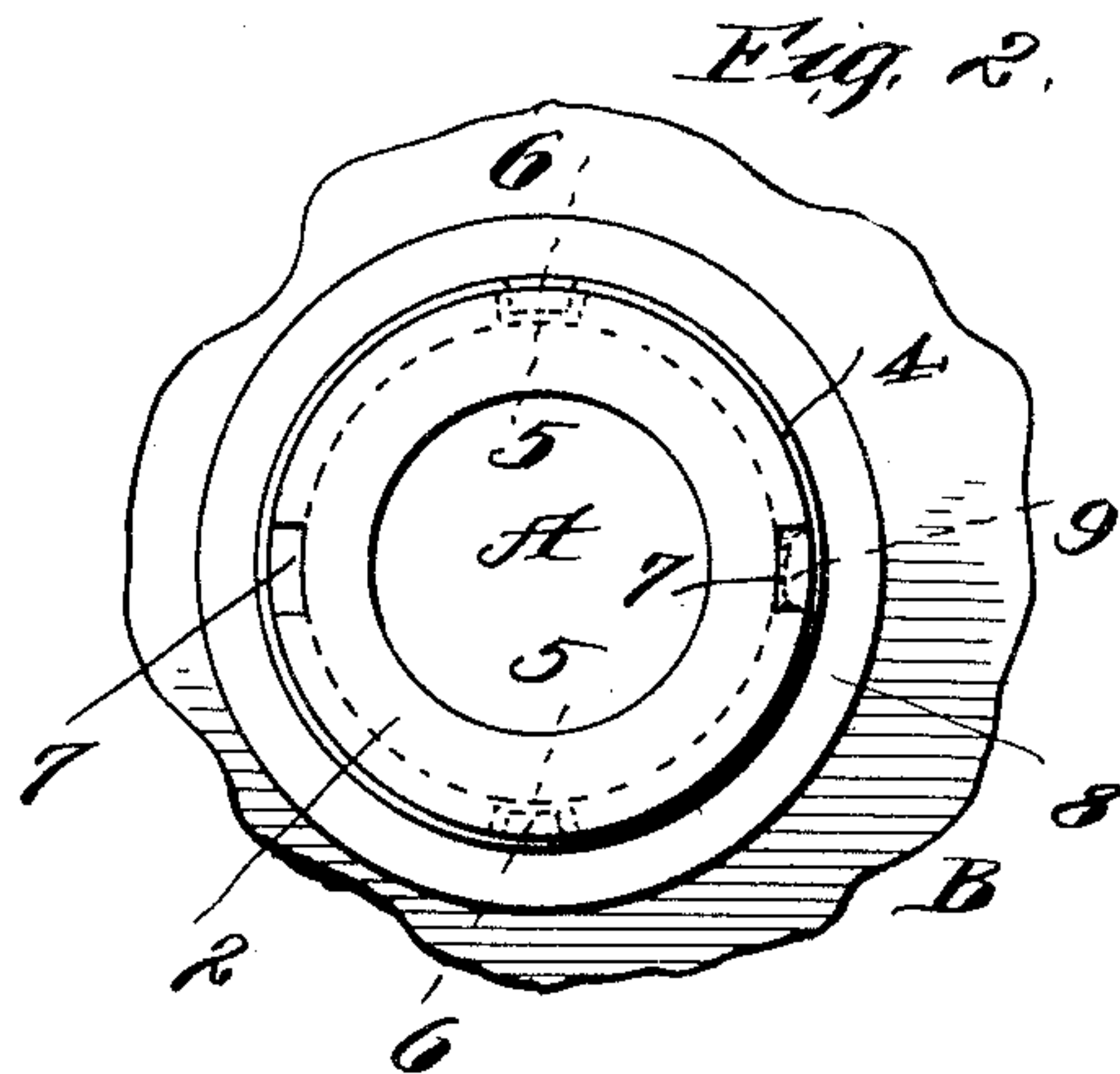
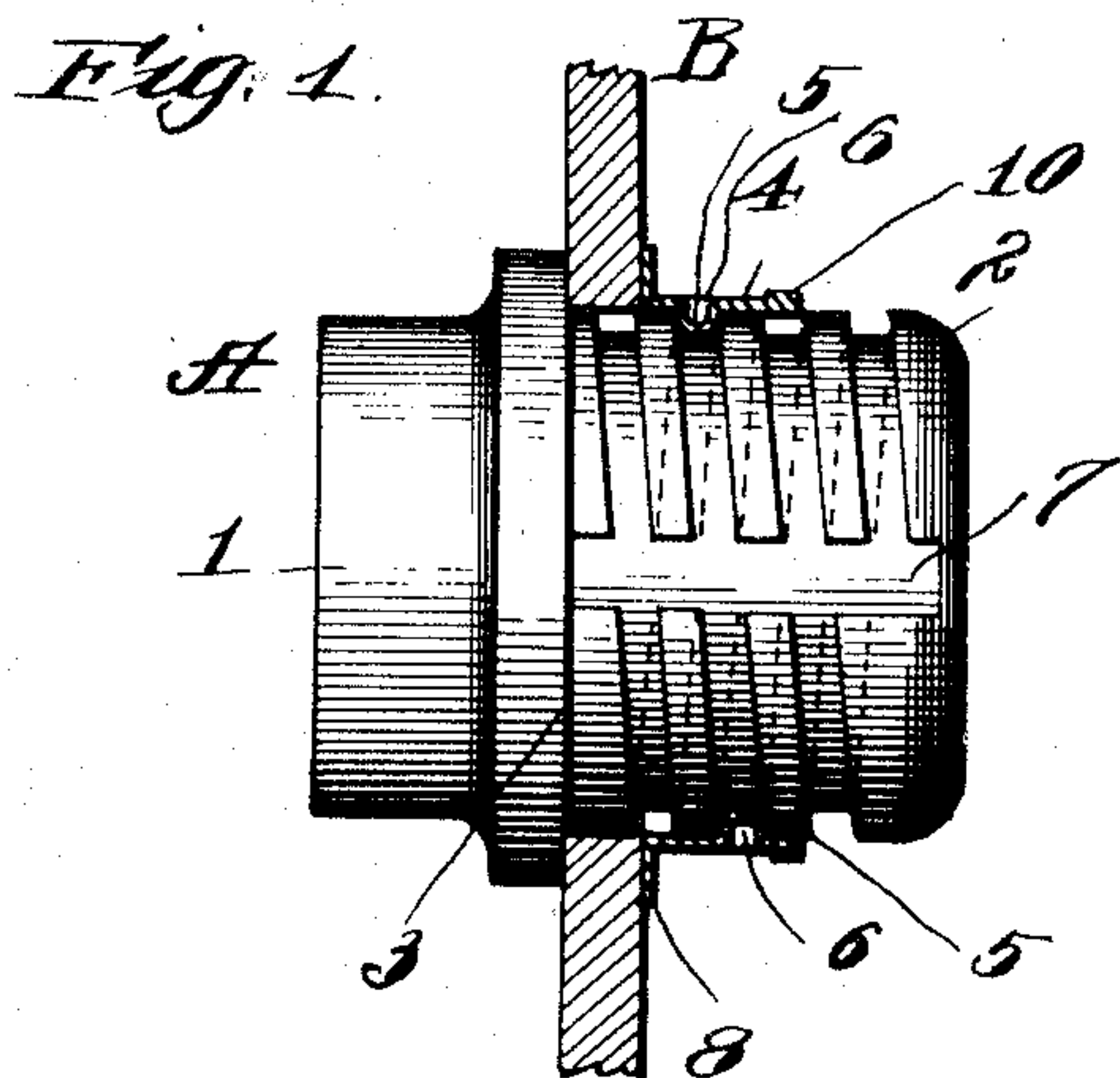


G. B. McBEAN.
INSULATING SUPPORT.
APPLICATION FILED AUG. 26, 1909.

947,185.

Patented Jan. 18, 1910.



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INSULATING-SUPPORT.

947,185.

Specification of Letters Patent. Patented Jan. 18, 1910.

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To all whom it may concern:

Be it known that I, GEORGE B. McBEAN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Insulating-Supports, of which the following is a specification.

This invention relates to insulating supports for incandescent electric lamps, electrical conductors, and the like, such as sockets and insulating bushings, and relates particularly to means for securing the same to a supporting wall or base plate.

The object of the invention is to provide improved and simplified means for securing insulating supports of the character specified to supporting walls or base plates, whereby desired connections may be made very quickly and then rendered positive.

To this end the invention consists of the various features and details of construction hereinafter described and claimed.

In the accompanying drawing, in which my invention is fully illustrated—Figure 1 is a side view, partly in section, of a bushing for insulating electrical conductors, together with means embodying my invention for securing the same to a supporting wall or base. Fig. 2 is a rear end view thereof, illustrating means for locking my improved securing means in adjusted position. Fig. 3 is a view, substantially similar to Fig. 1, of a socket for an incandescent electric lamp embodying a slightly modified form of my improved securing means: and Fig. 4 is a perspective view of the locking ring shown in Fig. 3.

Referring now to Figs. 1 and 2 of the drawings, A designates, as a whole, a usual form of insulating bushing for electrical conductors, said bushing being made of suitable insulating material, as porcelain, or the like, and B designates a supporting wall to which said bushing is secured.

The means for securing the bushing A to the supporting wall B is as follows:—Said bushing A comprises relatively large and small portions 1 and 2, respectively, between which is a shoulder 3. Formed in the supporting wall B is a suitable hole or opening adapted to receive the small end 2 of said bushing, which is of such length that, when the shoulder 3 is in contact with one side of said supporting wall, the small end of said

bushing will project a desired distance through the other side of said opening. The exterior surface of the small end 2 of said bushing is screw threaded, and fitted thereto, so as to slide freely over the screw threads thereon, is a sleeve 4, preferably made of ductile sheet metal, as copper or aluminum. Said sleeve 4 is adapted to be connected to the small end 2 of said bushing and forced toward the shoulder 3 thereon by means of inwardly projecting lugs 5 on said sleeve adapted to engage the screw threads formed on said bushing, said lugs being preferably formed by swaging or stamping sections of said sleeve inwardly, thus providing corresponding recesses 6 in the outer surface of said sleeve adapted for engagement by a suitable tool, as a spanner wrench, for turning and tightening said sleeve. As shown, there are two lugs 5 located substantially opposite to each other. If desired, however, my invention contemplates the use of additional lugs preferably spaced at substantially uniform distances from each other.

Where the screw thread on the small end 2 of the bushing is a single thread, as shown in Figs. 1 and 2, the lugs 5 are located at different distances from the inner end of the sleeve 4, the distances between successive lugs being equal to the pitch of the screw thread divided by the number of lugs, thus providing a proper engagement of said lugs with the screw thread on the insulating support and maintaining the inner end of the sleeve 4 parallel with the shoulder 3.

Formed in the surface of the screw threaded end 2 of the bushing A, are longitudinal grooves 7 which cut through the screw threads thereon and are adapted to receive the inwardly projecting lugs 5 on the sleeve 4, thus providing for sliding the sleeve 4 lengthwise of the threaded end of the bushing A and for engaging the lug 5 with said screw thread at a point closely adjacent to the supporting wall B without screwing it the entire length of said thread, as would otherwise be necessary.

Formed on the inner end of the sleeve 4 is a flange 8, which is opposed to the shoulder 3 on the bushing A, the relation being such that, when the lugs or projections 5 on said sleeve are engaged with the screw thread on said bushing closely adjacent to the wall B and firmly set up or tightened,

said shoulder 3 and flange 8 will embrace opposite sides of said supporting wall B, thereby securing said bushing A firmly in position.

5 With the described construction, it is obvious that insulating supports may be secured to the supporting wall or base B much more quickly and conveniently than would be the case if it were necessary to screw said sleeve the entire length of said bushing and
10 that an equally strong connection will be provided.

After the sleeve 4 has been turned to bring the flange 8 thereon into firm engagement with the supporting wall B, the connection
15 between said sleeve and bushing may be rendered positive by swaging a part or parts thereof which overlie the longitudinal grooves 7 into engagement with either or
20 both of said grooves, as best shown in dotted lines at 9 in Fig. 2.

To provide for conveniently gripping the sleeve for turning the same, said sleeve is provided, adjacent to its outer end, with a
25 knurled section, indicated at 10.

In Figs. 3 and 4 of the drawing, I have illustrated a slightly modified form of my improved securing means applied for secur-
30 ing a socket for an incandescent electric light, designated A¹, to a supporting wall. Except as herein particularly pointed out, the parts and elements shown in Figs. 3 and 4 are the same as in Figs. 1 and 2 and are designated by the same reference characters.

35 The modification shown in Figs. 3 and 4 consists in providing a double screw thread on the small end 2 of the socket A¹, instead of a single thread, as shown in Figs. 1 and 2, the longitudinal slots 7 preferably beginning
40 at the outer ends of said double screw threads, respectively. Where double screw threads are used, the inwardly projecting lugs 5 on the sleeve 4 will be located at equal distances from the inner end of said sleeve.
45 As shown, also, the screw threads on the small end of said socket A¹, instead of being continuous, preferably consist of series of segmental threads which respectively communicate with different longitudinal grooves
50 7 and the inner ends of which are closed. With this construction a full engagement of the lugs 5 on the sleeve 4 will be insured, whereas, if the screw threads run into both longitudinal grooves 7, it might happen
55 that, in tightening said sleeve, said lugs might be turned partly out of the screw threads so as to project into the longitudinal grooves 7, thus very materially weakening the engagement of said sleeve
60 with the insulating support.

I claim:—

1. An insulating support for electrical connections and means for securing the same to a supporting wall, said securing means
65 comprising a screw thread on said insulat-

ing support, a shoulder on said insulating support adjacent to the inner end of said screw thread, a sleeve slidably fitted to the screw threaded portion of said insulating support, and inwardly projecting lugs on
70 said sleeve adapted to engage the screw thread on said insulating support, the screw threaded portion of said insulating support being provided with longitudinal grooves which cut through and communicate with
75 the several threads of said screw thread and are adapted to receive the inwardly projecting lugs on said sleeve, whereby said sleeve may be engaged with said screw thread at any point lengthwise thereof, substantially
80 as described.

2. An insulating support for electrical connections and means for securing the same to a supporting wall, said securing means comprising double screw threads on said in-
85 sulating support, a shoulder on said insulating support adjacent to the inner ends of said screw threads, a sleeve slidably fitted to the screw threaded portion of said insulating support, and inwardly projecting
90 lugs on said sleeve adapted to engage the different screw threads on said insulating support, the screw threaded portion of said insulating support being provided with longitudinal grooves which cut through and
95 communicate with the several threads of said screw threads and are adapted to receive the inwardly projecting lugs on said sleeve, whereby said sleeve may be engaged with said screw threads at any point length-
100 wise thereof, substantially as described.

3. An insulating support for electrical connections and means for securing the same to a supporting wall, said securing means comprising series of segmental screw
105 threads on said insulating support, a shoulder adjacent to the inner end of said screw threads, a sleeve slidably fitted to the screw threaded portion of said insulating support, and inwardly projecting lugs on said sleeve
110 respectively adapted to engage different series of said segmental screw threads on said insulating support, the screw threaded portion of said insulating support being provided with longitudinal grooves which
115 engage and communicate with corresponding ends of different series of segmental screw threads and are adapted to receive the inwardly projecting lugs on said sleeve, whereby said sleeve may be engaged with
120 said segmental screw threads at any point lengthwise thereof, the ends of said segmental screw threads remote from the longitudinal grooves with which they communicate, respectively, being closed, substantially
125 as described.

4. An insulating support for electrical connections and means for securing the same to a supporting wall, said securing means comprising a screw thread on said
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insulating support, a shoulder on said insulating support adjacent to the inner end of said screw thread, a sleeve of ductile sheet metal slidably fitted to the screw threaded portion of said insulating support, and inwardly projecting lugs on said sleeve adapted to engage the screw thread on said insulating support, said lugs being formed by swaging sections of said sleeves inwardly, thus providing corresponding recesses in the outer surface of said sleeve adapted for engagement by a tool for turning said sleeve, the screw threaded portion of said insulating support being provided with longitudinal grooves which cut through

said screw thread and communicate with the several grooves thereof and are adapted to receive the inwardly projecting lugs on said sleeve, whereby said sleeve may be engaged with said screw thread at any point lengthwise thereof, substantially as described.

In testimony, that I claim the foregoing as my invention, I affix my signature in presence of two subscribing witnesses, this 23rd day of August, A. D. 1909.

GEORGE B. McBEAN.

Witnesses:

K. A. COSTELLO,

M. A. REIHANSPERGER.