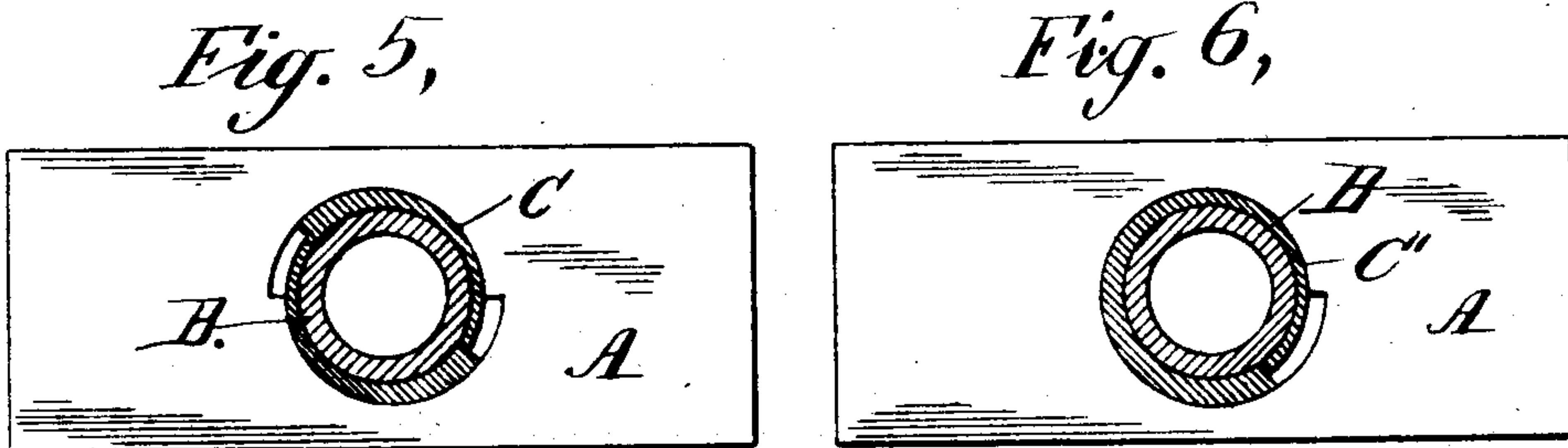
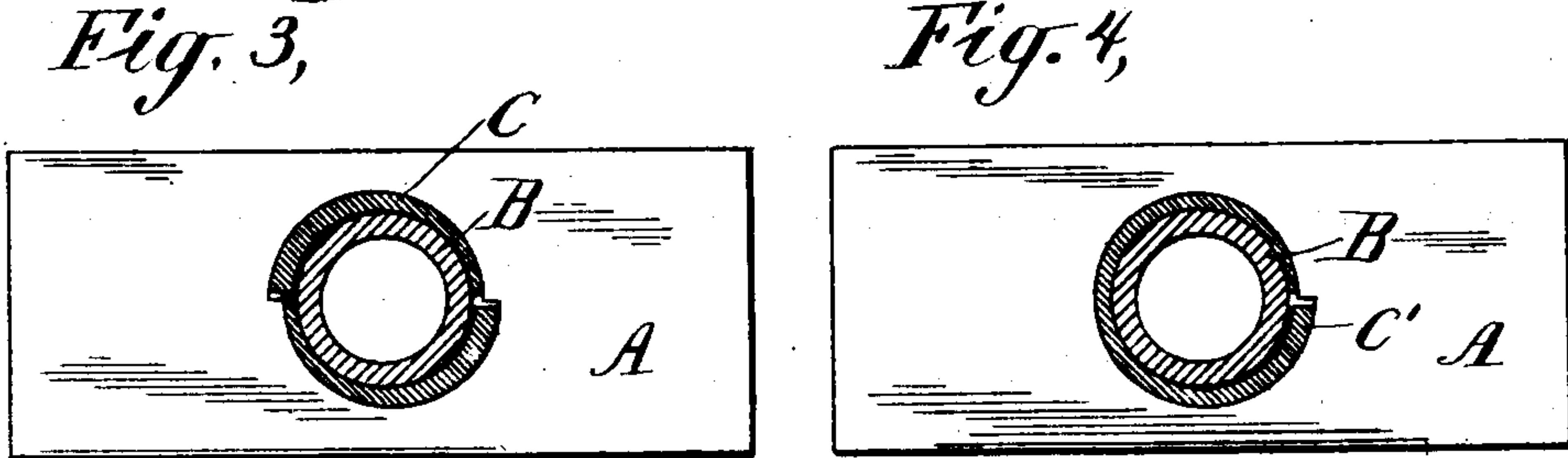
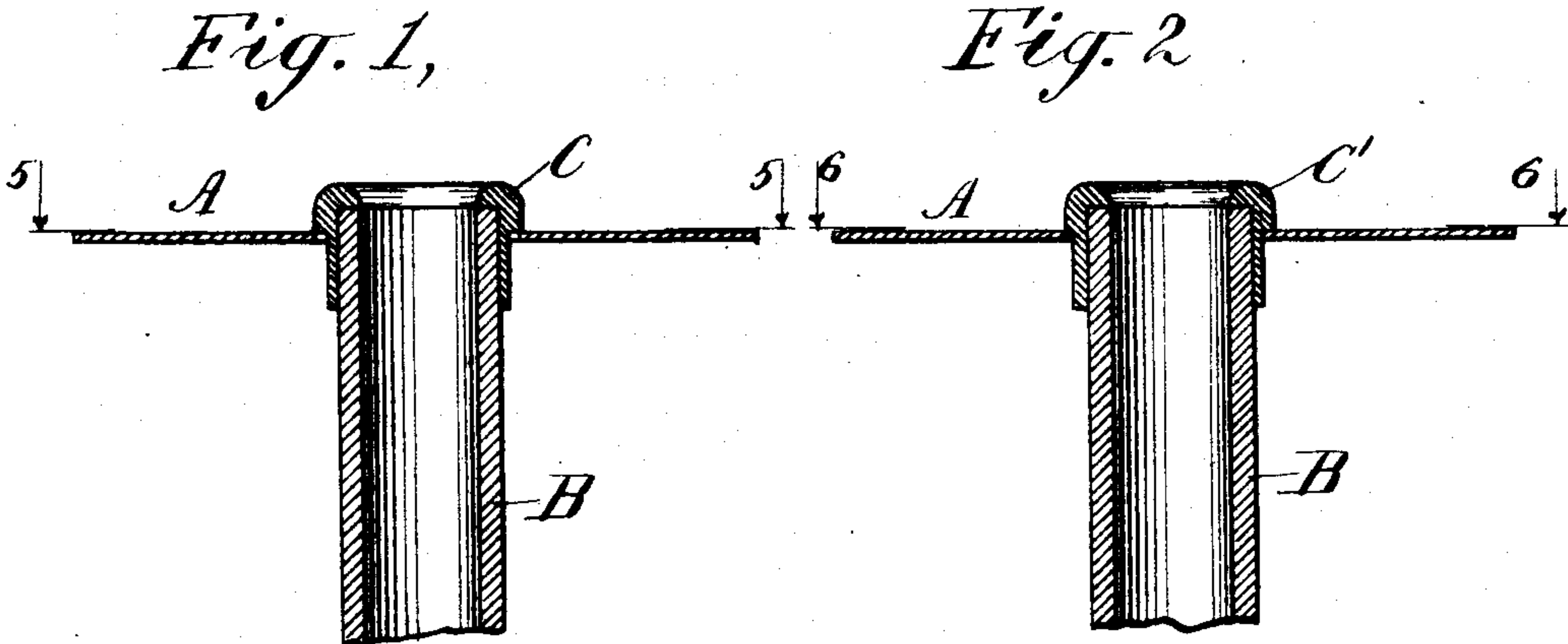


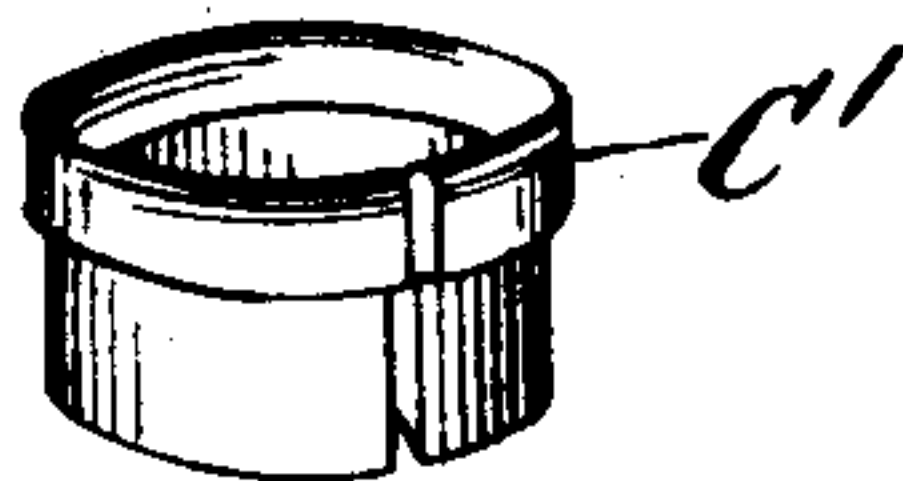
M. MAUER & W. J. BILLINGS.  
BUSHING FOR ELECTRICAL CONDUITS.

(Application filed Feb. 19, 1901.)

(No Model.)



*Fig. 7*



WITNESSES:  
*James A. Cooney*

*M. Mauer*  
*W. J. Billings*  
INVENTORS

BY *Philip H. Thayer*  
ATTORNEY

# UNITED STATES PATENT OFFICE.

MATHIAS MAUER AND WILLIAM J. BILLINGS, OF NEW YORK, N. Y.

## BUSHING FOR ELECTRICAL CONDUITS.

SPECIFICATION forming part of Letters Patent No. 682,215, dated September 10, 1901.

Application filed February 19, 1901. Serial No. 48,028. (No model.)

*To all whom it may concern:*

Be it known that we, MATHIAS MAUER and WILLIAM JAMES BILLINGS, citizens of the United States, residing in the borough of Manhattan, city of New York, county and State of New York, have invented new and useful Improvements in Bushings for Electrical Conduits, of which the following is a specification.

Our invention relates to improvements in attaching bushings to outlet-boxes for electrical conduits; and the object of such invention is to provide a convenient and economical method of securing electrical pipes or conduits in outlet-boxes in such a manner as will enable them to be readily connected or disconnected and will effect a saving in the cost of bushings as at present constructed.

The nature of our invention and the mode in which it is operated are set forth in the following specification and the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view showing pipe and double-cam bushing assembled and in place inside of an outlet-box. Fig. 2 is a similar sectional view showing pipe and single-cam bushing assembled. Figs. 3 and 4 are cross-sections of Figs. 1 and 2, taken on the line of the side of the outlet-box, showing position of the bushings before the same are locked. Figs. 5 and 6 are similar cross-sections showing position of the bushings after being locked. Fig. 7 is a view of a bushing detached from the pipe and the outlet-box.

In the above figures, A is one of the sides of an outlet-box for electrical conduits.

B is a pipe or conduit entering the side A.

C is a double-cam bushing holding the pipe and engaging with an aperture of the same outline in the side A.

C' is a single-cam bushing engaging in a similar way.

The mode of operating the invention is as follows: The bushing C or C', constructed, preferably, of elastic material formed with a longitudinal slit to allow compression, is inserted in an aperture in the side of the box, which aperture is formed with a periphery corresponding to the periphery of the bush-

ing and the pipe is inserted in the bushing. The parts will then be in the position shown in Figs. 3 and 4. The bushing is then revolved until by tight contact of the eccentrics in the bushing and the aperture in the box the bushing is firmly gripped and locked in the side of the box, and the pipe is simultaneously gripped and locked by compression of the bushing. The position assumed by the parts after the locking is shown in Figs. 5 and 6, and the process of securely attaching the pipe to the outlet-box is completed.

From the above description of our invention it will be seen that pipes can by the means shown be securely held in position and readily connected and disconnected, while simplicity and economy in construction are secured by dispensing with the necessity for screw-threaded attachments as at present necessary.

In illustrating our invention we have shown a cam-shaped bushing in which the locking is effected by right-hand rotation of the bushing; but we do not confine ourselves to this particular form of carrying out our invention, as it is obvious that the objects of our invention can be effected in various ways and by different forms and descriptions of eccentricity in the bushing without departing from the scope of such objects so long as the peripheries of the bushing and of the aperture in the box coincide in form.

Having thus described the nature of our invention and the manner in which it is operated, what we claim, and desire to secure by Letters Patent, is—

1. In an outlet-box the combination of an eccentrically-formed or cam-shaped bushing with an aperture of the same form as described and for the purposes specified.

2. The combination with an outlet-box of a pipe leading into such box, a cam-shaped or eccentric bushing formed of elastic material and provided with a longitudinal slit to allow elastic play, and an aperture in the side of the box having a periphery coinciding with that of the bushing as described and for the purposes specified.

3. The combination in an outlet-box of a



compressible bushing engaging with an aperture coinciding in form with the periphery of the bushing and so arranged as to cause a locking action when the bushing is rotated  
5 in the aperture, all as described and for the purposes specified.

In testimony whereof we have signed our names to this specification, in the presence of

two subscribing witnesses, this 28th day of January, 1901.

M. MAUER.  
W. J. BILLINGS.

Witnesses:

A. G. MCCREARY,  
JAS. A. COONEY.