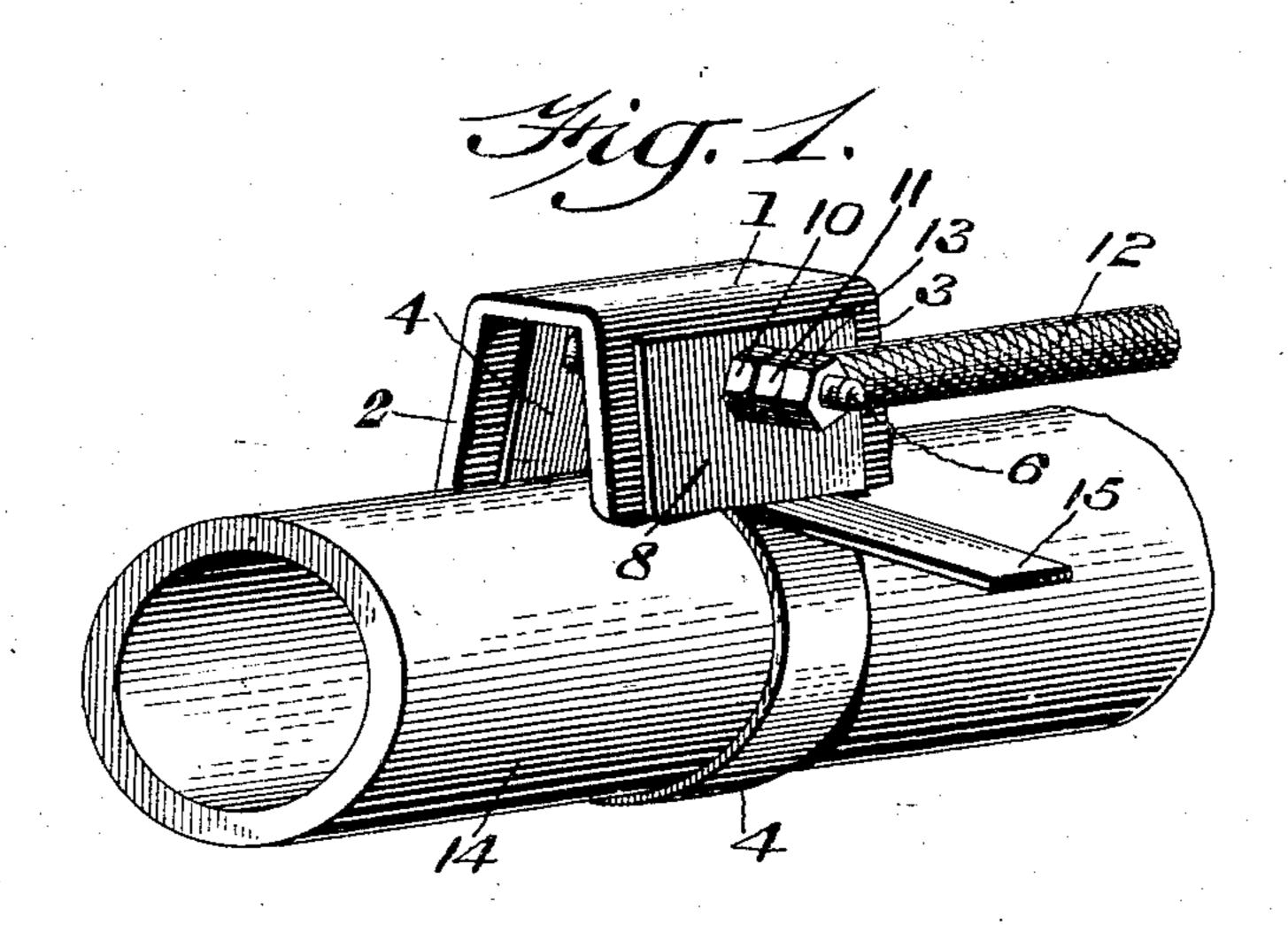
## J. C. VOGEL.

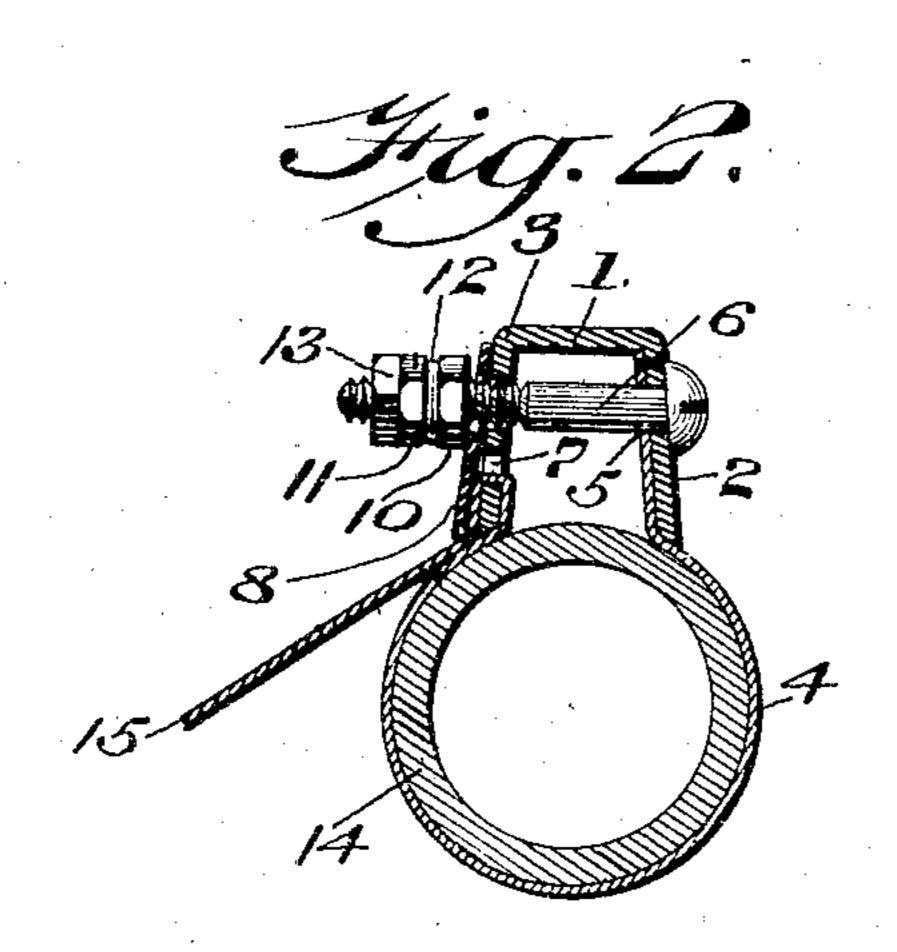
GROUND JOINT CONNECTION FOR ELECTRIC CONDUCTORS.

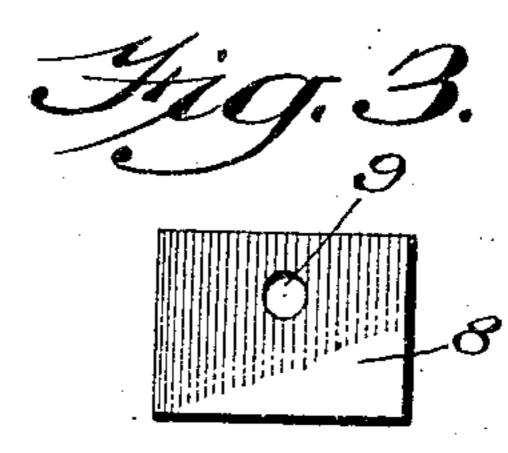
APPLICATION FILED JULY 3, 1908.

907,543.

Patented Dec. 22, 1908.







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Witnesses H. G. Wieterica

P. F. Nagles.

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John 6. Nogel.

Biedersheim & Fairbancs.

## UNITED STATES PATENT OFFICE.

JOHN C. VOGEL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE FAIRMOUNT ELECTRIC AND MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

## GROUND-JOINT CONNECTION FOR ELECTRIC CONDUCTORS.

No. 907,543.

Specification of Letters Patent.

Patented Dec. 22,-1908.

Application filed July 3, 1908. Serial No. 441,793. REISSUED

To all whom it may concern:

Be it known that I, JOHN C. VOGEL, a citizen of the United States, residing in the city and county of Philadelphia, State of Penn-5 sylvania, have invented a new and useful Ground-Joint Connection for Electric Conductors, of which the following is a specification.

My invention relates to a new and useful 10 ground connection and consists of a new and useful means for connecting the same with a pipe, rod or other suitable conductor.

It further consists of other novel features of construction, all as will be hereinafter fully 15 set forth.

Figure 1 represents a perspective view of a ground connection embodying my invention. Fig. 2 represents a vertical sectional view thereof. Fig. 3 represents a view of the ec-20 centric plate or lock for holding the band in position. Fig. 4 represents a perspective view of the body.

Similar numerals of reference indicate cor-

responding parts in the figures.

Referring to the drawings, I have found in practice in the ground connections for electrical conductors now in use that owing to the arrangement of the tightening means, the pipe or other support to which the connec-30 tion is fastened, is apt to be destroyed or injured. My invention is designed to overcome this defect and to provide a new and novel connecting means which can be quickly and easily operated and in the drawings I 35 have shown a construction for carrying out my invention but it will be evident that the arrangement of the parts may be varied and other instrumentalities may be employed which will come within the scope of my in-40 vertion and I do not therefore desire to be

essary. 45 · 1 designates the body of my connection having the side plates 2 and 3 and to one of which is adapted to be connected a band 4 in any suitable manner. I have shown the band having an opening 5 therein through

limited in every instance to the exact con-

struction as herein shown and described but

desire to make such changes as may be nec-

50 which passes a threaded bolt or screw 6 which passes through suitable openings in the side walls 2 and 3, said bolt being adapted to hold the end of the band 4 in proper position with respect to the proper side plate, which in the present instance I have shown 55 as 2. The band 4 is preferably flexible and of any suitable metal or other good conducting material. At a suitable point in the opposite plate from that to which the end of the band 4 is connected, in the present instance 60 the side plate 3, I provide the slot or opening 7 through which the free end of the band is adapted to be passed from the inside.

8 designates an eccentric plate or lock which is mounted upon the screw or pin 6, 65 which passes through an opening 9 in said plate, it being noted that said opening is preferably above the center of the plate, and that the lower portion thereof is adapted to contact with the portion of the band 4, after 70 it has passed through the opening 7 when the said plate 8 is in its normal position.

10 designates a nut which is adapted to be placed upon the end of the screw or pin 6 and between which and a nut 11, is adapted to be 75 secured, a conductor 12, a nut 13 holding the

parts in position.

The operation of the device will be readily apparent: When the nuts 13, 11 and 10 are loose, the plate 8 can be swung around upon 80 the pin or screw 6 from in front of the opening 7. The band 4 is placed around the pipe or conductor 14 and the end thereof is passed. béneath the side plate 3 of the body portion 1, and through the opening 7 from the inside, 85 the end 15 of the band extending outwardly. The plate 8 is now returned to its proper position in front of the opening 7 and the lower: portion thereof abuts the portion of the band 4 in front of the plate 3. By tightening the 90 screws the plate 8 is forced against the band holding or locking the same firmly in position while the two side plates 2 and 3 are compressed or caused to approach each other and movement of the free end 15 of the band is 95 prevented by reason of its engagement with the side plate 3 and the lock 8. The band 4 is thus tightened around the conductor or pipe 14 and the connection is firmly and positively held in position. It will be seen that 100 the device is easily and quickly placed in position by simply loosening the nuts 13, 11 and 10 a suitable amount and that the device is adapted for use upon any sized pipe or conductor 14 as any part of the band 4 can be 105 engaged by the side plate 3 and the lock 8.

Having thus described my invention, what I claim as new and desire to secure by Let-

ters Patent, is:—

1. In a device of the character described, a 5 body portion, a flexible band having one end adapted to be connected with a suitable part of said body portion, means for compressing said body portion for tightening the band around a suitable support and a lock for con-10 necting the free end of the band with the

body portion.

2. In a device of the character described, a body portion, a flexible band having one end thereof connected with a suitable part of said 15 body portion, a lock carried by said body and adapted to hold the free end of said band in engagement with said body portion and means for compressing said body portion for tightening the hand around a suitable sup-20 port and for holding said lock in proper position.

3. In a device of the character described, a body portion, plates thereon, a band adapted to pass around a suitable support, one end of 25 said band connected with one of said plates, means for drawing said plates together, and a lock carried by the opposite plate for connecting the free end of said band with the plate.

4. In a device of the character described, a body portion, side plates, a band having one end secured to one of said side plates, means for drawing said side plates together, an opening in one of said side plates through 35 which the other end of the band is passed, and a lock carried by said plate adapted to

lock said free end with respect to said plate. 5. In a device of the character described, a body portion, a flexible band having one end 40 secured to one of said side plates, a screw

passing through said side plates for compress. ing the same, an opening in one of said side plates through which the free end of the band is passed and an eccentric plate or lock carried by said side plate adapted to be swung 45 out of position for allowing the free end of the band to be passed through the opening and suitably actuated for locking said free end to said side plate.

6. In a device of the character described, a 50 body portion, plates thereon, a band having an opening, a screw passing-through said side plate and said opening in said band, a plate or lock mounted on said screw, one of said side plates having an opening therein through 55 which the free end of the band is adapted to pass, and a nut carried by said screw adapted to be tightened for compressing the side plates and for holding the lock in proper position for locking the free end of the band to 60 the plate, whereby the said band is tightened around the support.

7. In a device of the character described, a body portion comprising top and side plates, a flexible band fastened thereon, a bolt or 65 screw passing through said side plates, one of the side plates having an opening therein through which the free end of the band is adapted to pass, a plate carried by said bolt and adapted to clamp the free end of the 70 band against said body portion, and nuts carried by said bolt for compressing the side plates, holding the free end of the band in

position and drawing the band tight around the support.

JOHN C. VOGEL.

Witnesses:

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WM. CANER WIEDERSEIM, C. D. McVAY.