

(No Model.)

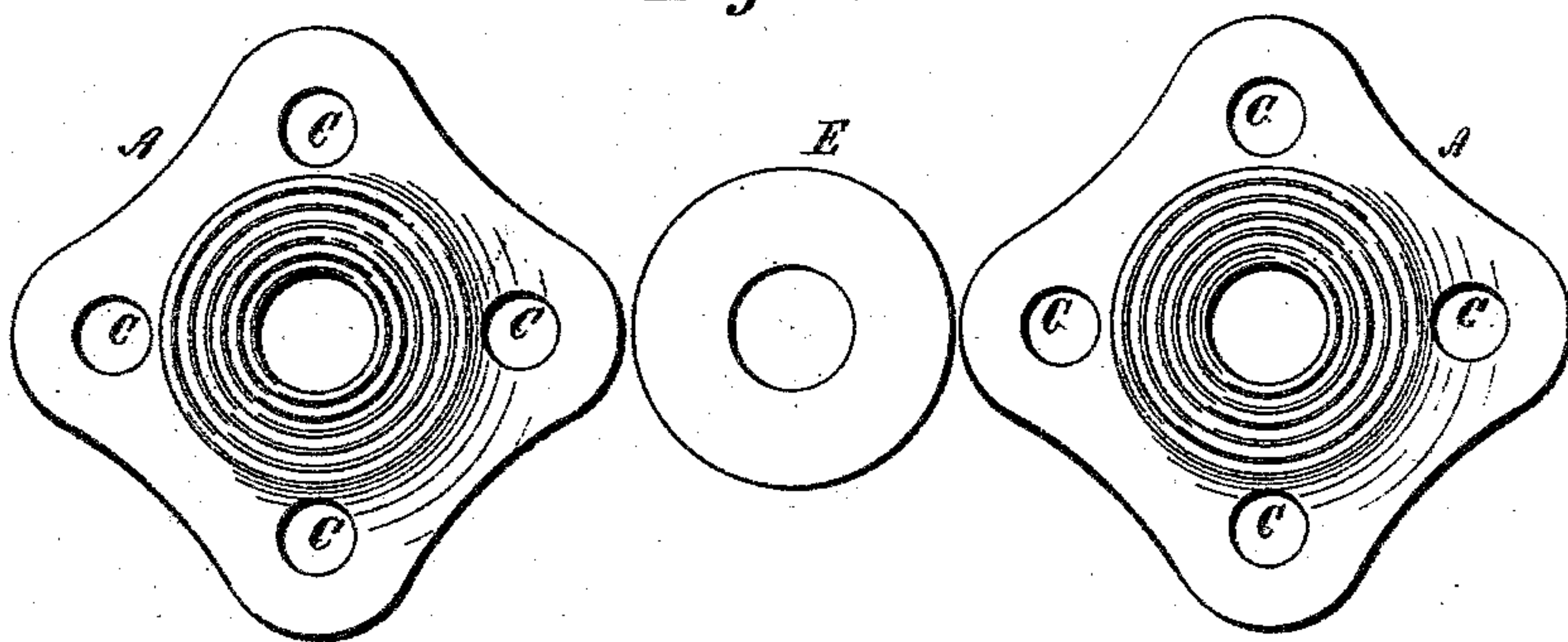
W. M. MIXER.

PIPE COUPLING.

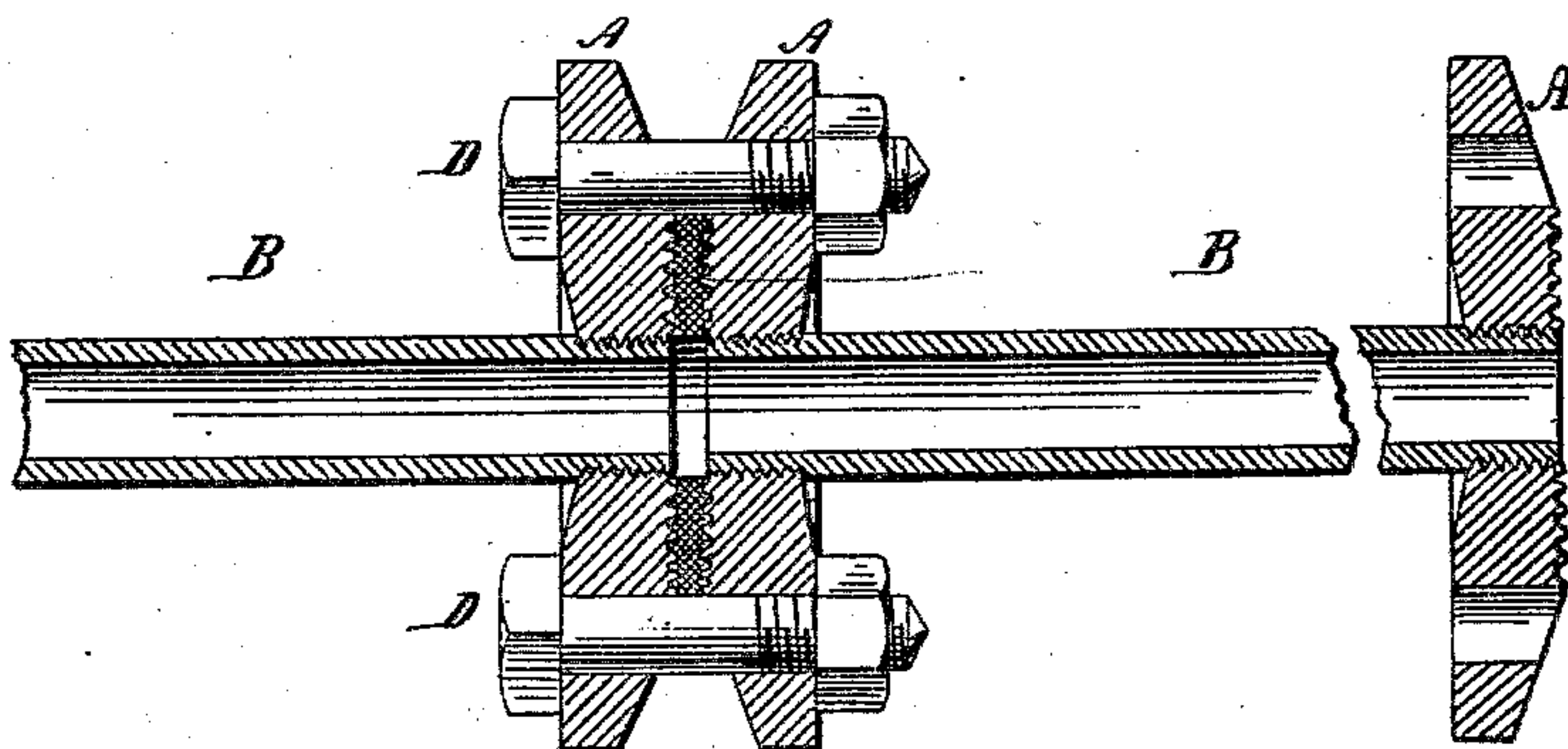
No. 301,512.

Patented July 8, 1884.

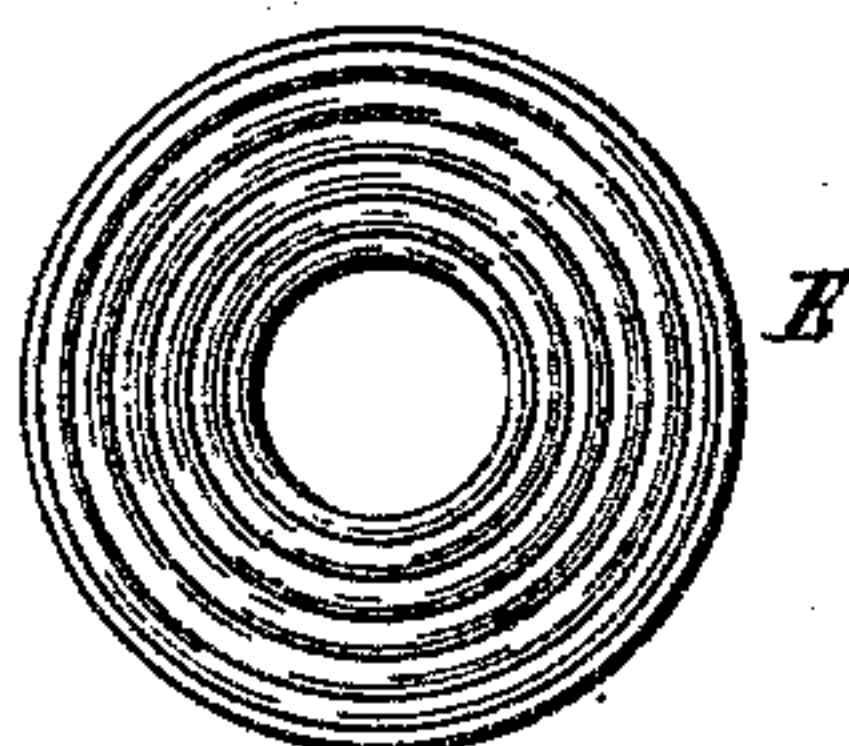
*Figure 1.*



*Figure 2.*



*Figure 3.*



Witnesses:

A. E. Tanomann.

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Inventor:

Wm. M. Mixer

by Foster & Freeman  
attys



# UNITED STATES PATENT OFFICE.

WILLIAM M. MIXER, OF NEW YORK, N. Y.

## PIPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 301,512, dated July 8, 1884.

Application filed December 15, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM M. MIXER, of the city of New York, county of New York, and State of New York, have invented a new and useful Improvement in Pipe-Couplings, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to a simple method of making a tight pipe-coupling. This coupling is so arranged as to be reversible—that is to say, either end of any pipe provided with it can be connected to either end of any other pipe similarly provided. This coupling is especially adapted to the retaining of a gas or liquid under pressure, and is designed for use in connecting the refrigerating-pipes of ice-machines.

My invention will be readily understood from the accompanying drawings, of which Figure 1 represents perspective views of the coupling-plates and lead washer; Fig. 2, a sectional view of the joint completed, and Fig. 3 a view of the lead washer after it has been pressed by the coupling-plates.

A A represent the coupling-plates, which are screwed firmly upon the ends of the pipes B B, making a tight joint therewith. These plates are preferably generally square in section, and are provided with holes C for the reception of the bolts D. The central portions of these plates surrounding the central opening are provided with circular ribs, as shown, while the outer parts around the ribbed portion are preferably cut away or beveled, so as not to interfere with the operation of the lead washer. The lead washer shown in Fig. 1 is circular in section, having an opening corresponding with the opening of the pipe, and when placed in position in making the coupling is held centrally by the bolts D.

In order to make the coupling, the ends of

the pipes provided with coupling-plates are brought together. The ring-washer, which may be made of lead or other compressible material, is placed in situation so that its hole corresponds with the opening in the pipe. The bolts D are placed in position, and are drawn up by their nuts, thereby pressing the washer E into the form shown in Fig. 3. By this operation the lead fills the grooves between the coupling ends, and an absolutely tight joint is insured. The lead in position is visible from the outside, thereby preventing a workman from accidentally omitting it in making a joint. It will thus be seen that the central portion of the coupling-plate, or that portion nearest the tube, having the annular grooves, projects beyond the periphery or edge of the plate, the face of the plate being beveled near its periphery, as shown in Fig. 2.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the coupling-plates A A, each provided with central circular ribs, with lead washer E, filling the grooves between said ribs, substantially as described.

2. The combination of the pipes B B, each having at each end a coupling-plate, A, provided with central circular ribs, the lead washer E, filling the grooves between said ribs, and the bolts D, for centralizing said washer and forcing the coupling-plates against it, substantially as described.

3. The combination of the tubes B B, each having at the end a coupling-plate, with the central portion within a surrounding beveled portion, and with annular grooves in said central portion, and a lead washer, and connecting devices, substantially as set forth.

WILLIAM M. MIXER.

Witnesses:

GEO. H. EVANS;

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