

No. 843,165.

PATENTED FEB. 5, 1907.

J. C. McELROY.
PIPE JOINT.

APPLICATION FILED MAR. 24, 1906.

Fig. 1.

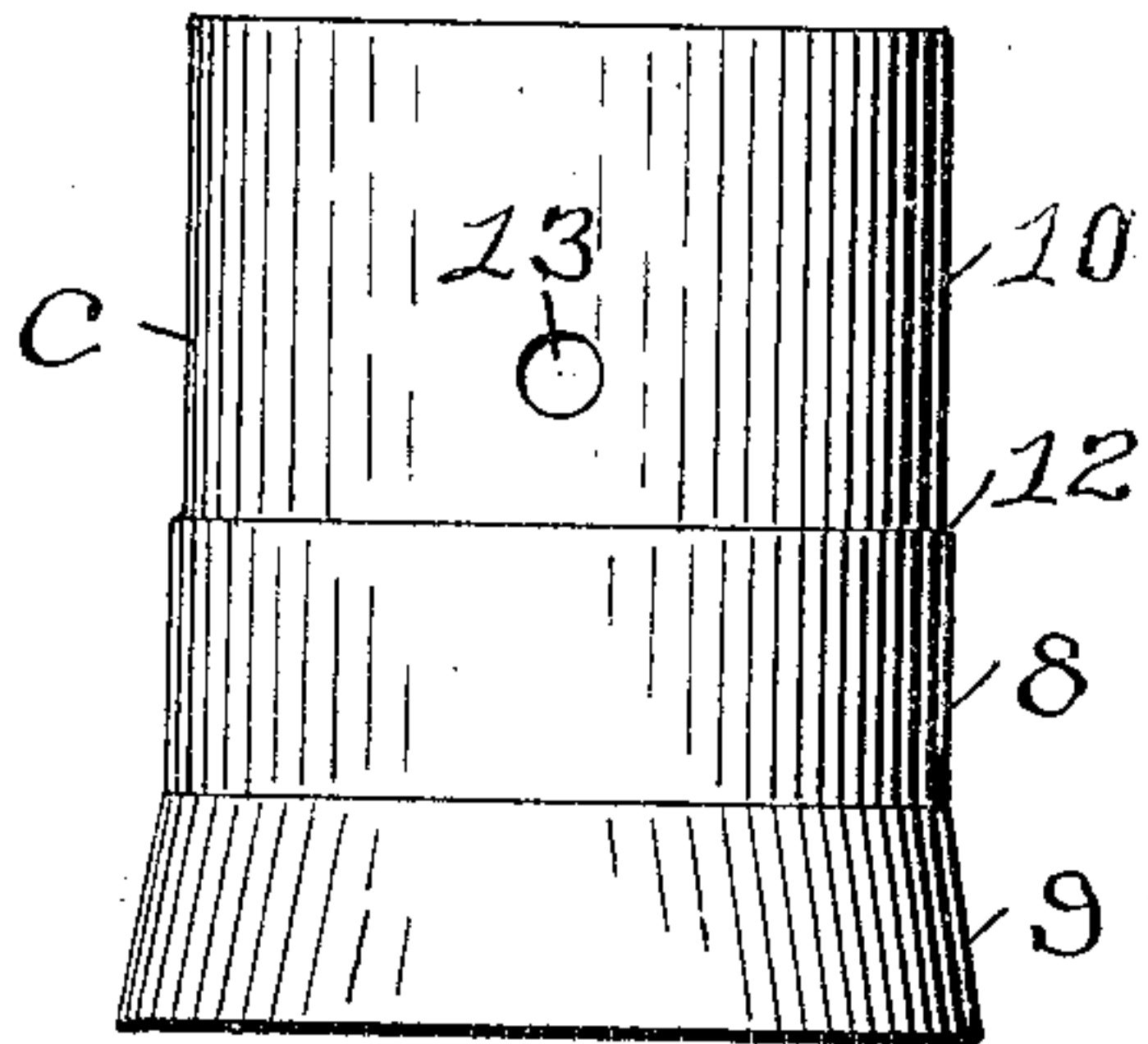


Fig. 2.

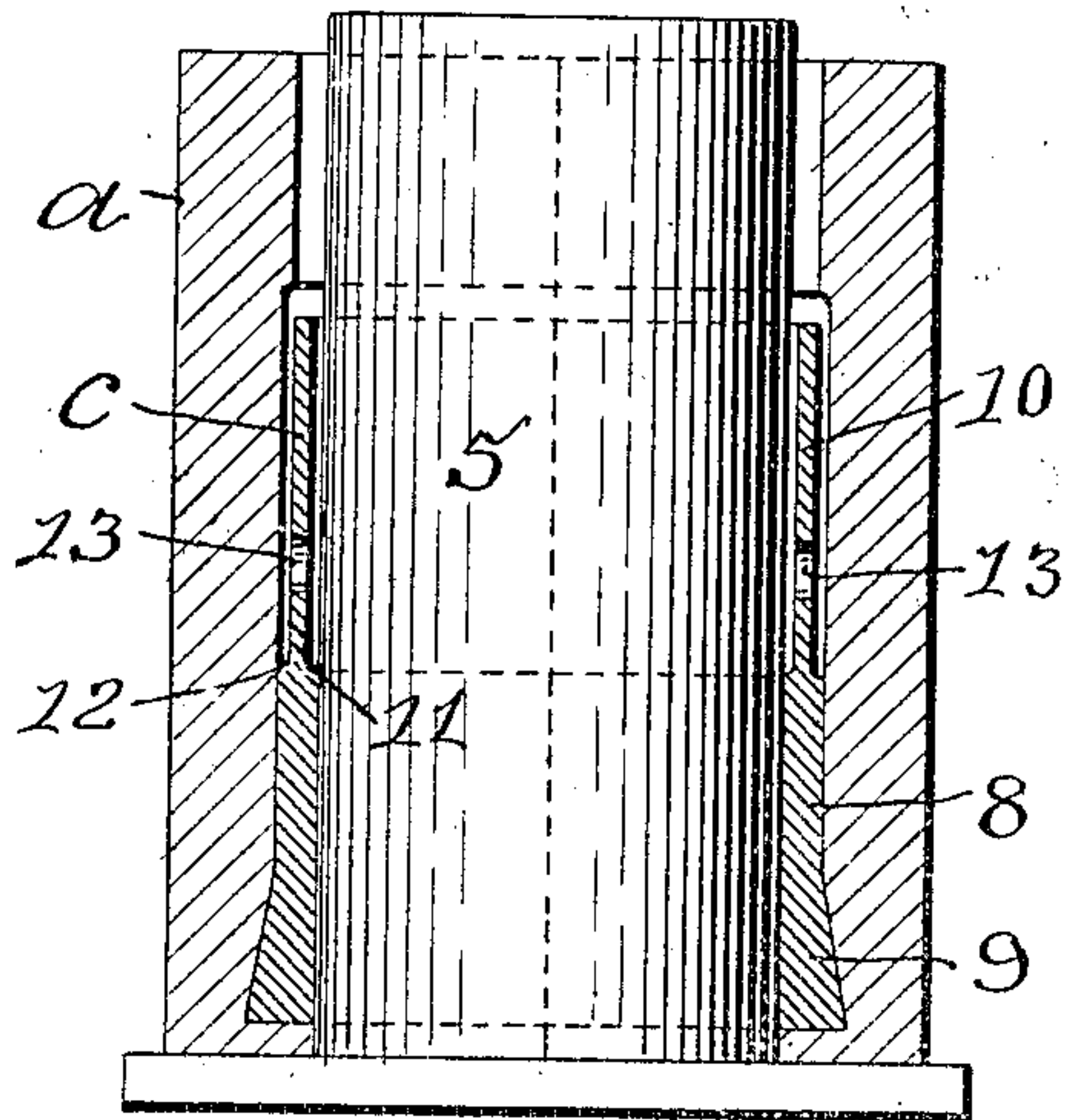


Fig. 3.

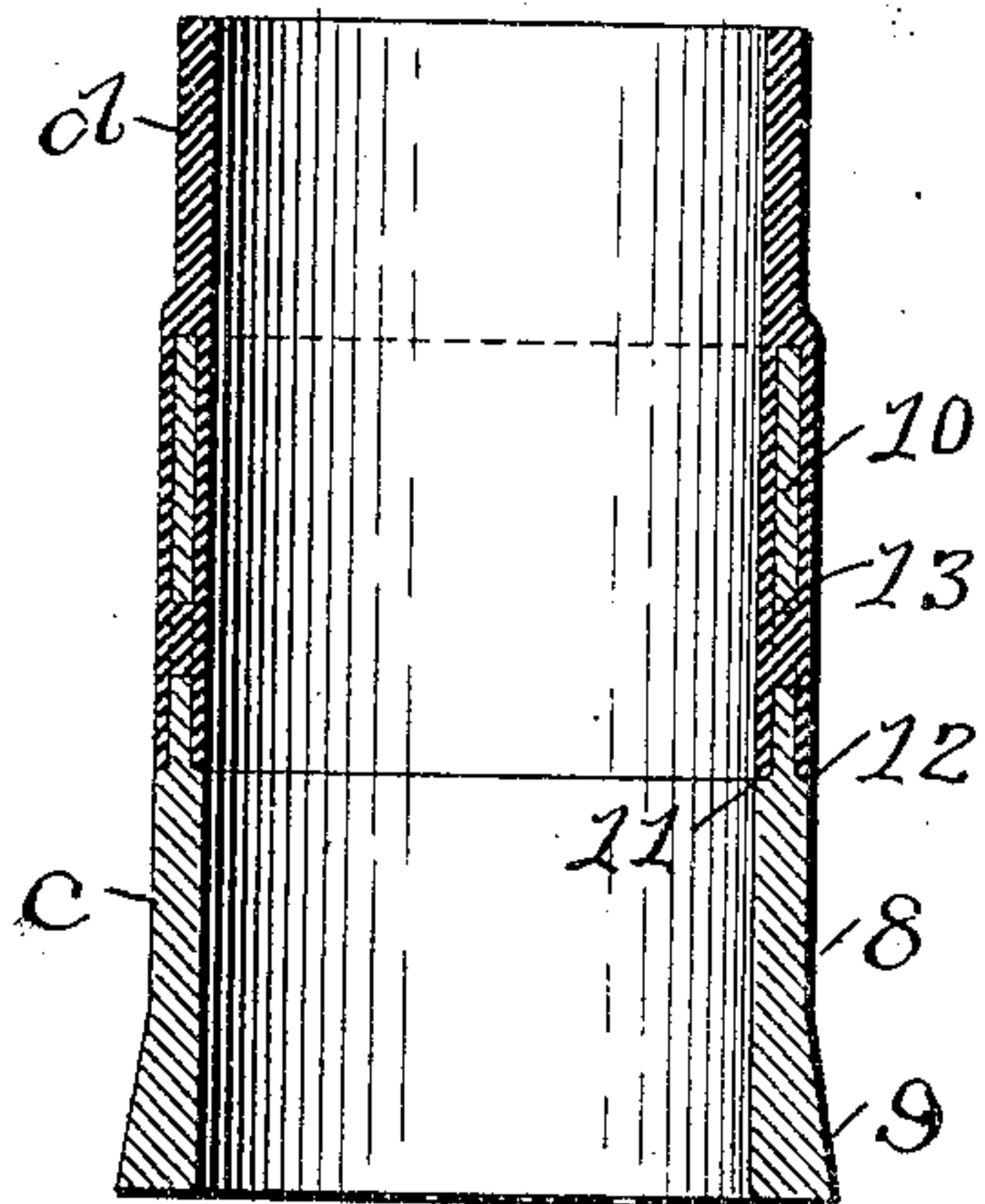
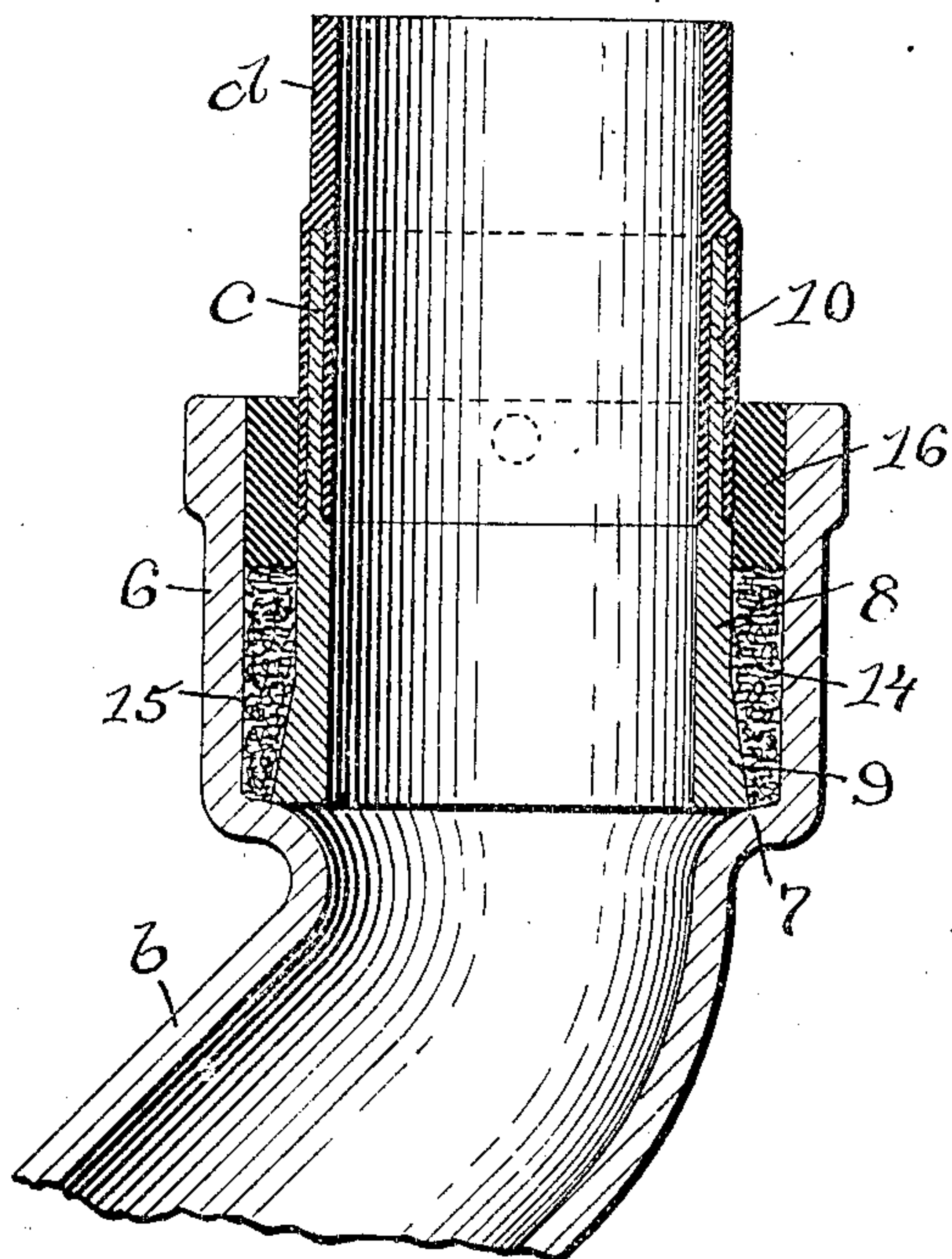


Fig. 4.



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PIPE-JOINT.

No. 843,165.

Specification of Letters Patent.

Patented Feb. 5, 1907.

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To all whom it may concern:

Be it known that I, JOHN C. McELROY, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Pipe-Joints, of which the following is a specification.

This invention has reference to an improvement in pipe-joints, and more particularly to an improvement in that form of pipe-joints in which a lead pipe is secured to an iron pipe.

The object of my invention is to improve the construction of a pipe-joint whereby a lead pipe is more permanently secured to an iron pipe than has heretofore been done.

A further object of my invention is to prevent corrosion between an iron and a lead pipe at the juncture of the lead pipe with the iron pipe.

My invention consists in the peculiar and novel construction of a pipe-joint in which a lead pipe is secured to an iron pipe, with details of construction, as will be more fully set forth hereinafter and pointed out in the claims.

Figure 1 is a vertical side view of my improved pipe-joint thimble before casting on the lead end. Fig. 2 is a vertical sectional view through a mold, showing the thimble in the mold and the shape of the mold for casting the lead end on the thimble. Fig. 3 is a vertical sectional view of the thimble removed from the mold and showing the lead end permanently secured to the iron thimble, and Fig. 4 is a vertical sectional view through the completed pipe-joint.

In the drawings, *a* indicates a mold; *b*, an iron-pipe fitting; *c*, my improved iron thimble, and *d* a lead end cast on the end of the thimble.

The mold *a* has the usual core 5 and is shaped to receive the thimble *c* and form the lead end *d* on the thimble, as shown in Fig. 2. The fitting *b* has the usual enlarged end 6, forming the annular ledge 7; as shown in Fig. 4.

The thimble *c* is cylindrical in form and has the comparatively thick body portion 8, from which extends the truncated cone-shaped end 9 and the reduced cylindrical end 10, forming the inner and outer annular shoulders 11 and 12. A series of holes 13 13

are formed in the side of the cylindrical end 10, as shown in Figs. 1 and 2. The lead end *d* is formed on the thimble *c* by placing the thimble in the mold *a*, as shown in Fig. 2, and pouring molten lead into the mold. The melted lead fills in the space in the mold on each side and on the end of the reduced cylindrical end 10 of the thimble and unites through the holes 13 13, thus positively securing the lead end *d* to the thimble *c*. The lead end *d* has a thickness from the shoulders 11 and 12 outward equal to the thickness of the body 8 to a point beyond the end of the thimble, where it is reduced on its outer circumference to a thickness corresponding to the thickness of the lead pipe to which it is to be secured, thus giving to the thimble a smooth interior surface, as shown in Fig. 3. The iron thimble *c*, with the lead end *d*, is now placed in the enlarged end 6 of the iron fitting *b*, with the cone-shaped end 9 abutting against the ledge 7 on the fitting and secured by tamping oakum 14 or a similar material into the internode 15 and completing the same by flowing lead 16 on top of the oakum, as shown in Fig. 4. A lead pipe may now be united to the lead end *d* of the thimble *c* by the usual cupped or wiped joint. By extending the lead end *d* to cover both the inner and outer surfaces of the reduced end 10 of the thimble *c* corrosion of the thimble at the point beyond the end 6 of the fitting *b* is prevented, and by uniting the lead through the holes 13 13 in the thimble the lead end *d* is positively secured to the thimble.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a pipe-joint, a thimble having a comparatively thick body portion from which extends a truncated-cone-shaped end and a reduced cylindrical end the latter provided with a series of holes, a lead end formed on the reduced cylindrical portion and shaped to cover the inner and outer surfaces thereof, and means for permanently securing the lead end to the thimble consisting of lead within said holes for uniting the parts of said end.

2. In a pipe-joint, a thimble *c* having a comparatively thick body portion 8 from which extends a truncated-cone-shaped end 9 and a reduced cylindrical end 10 the latter forming the inner and outer annular shoulders

ders 11 and 12 and a lead end d cast on the
cylindrical end 10 and shaped to envelop the
cylindrical end to the shoulders 11 and 12,
pass through holes 13 13 formed in said end
5 10 and to extend outward beyond said end,
as described.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

JOHN C. McELROY.

Witnesses:

ADA E. HAGERTY,
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