

No. 657,372.

Patented Sept. 4, 1900.

J. W. WIGGINS.  
JOINT FOR PIPING.

(Application filed May 17, 1900.)

(No Model.)

Fig. 1. F G H

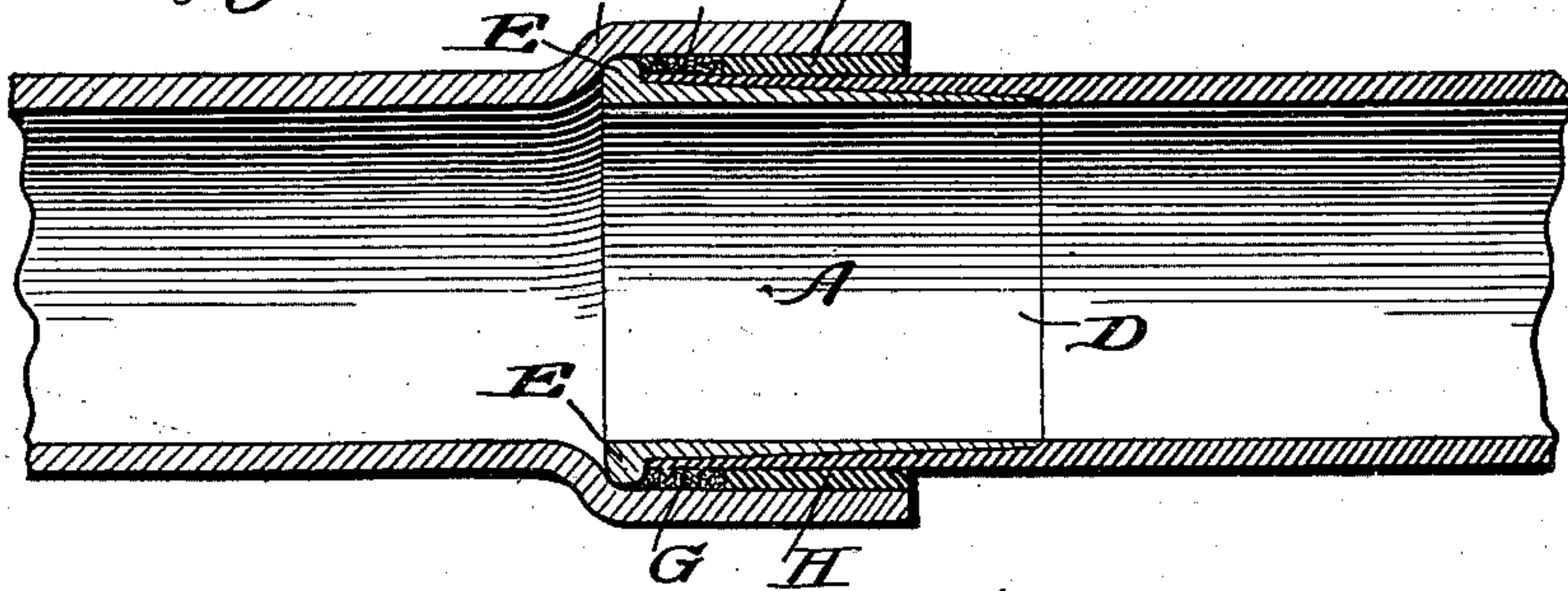


Fig. 2. E E'

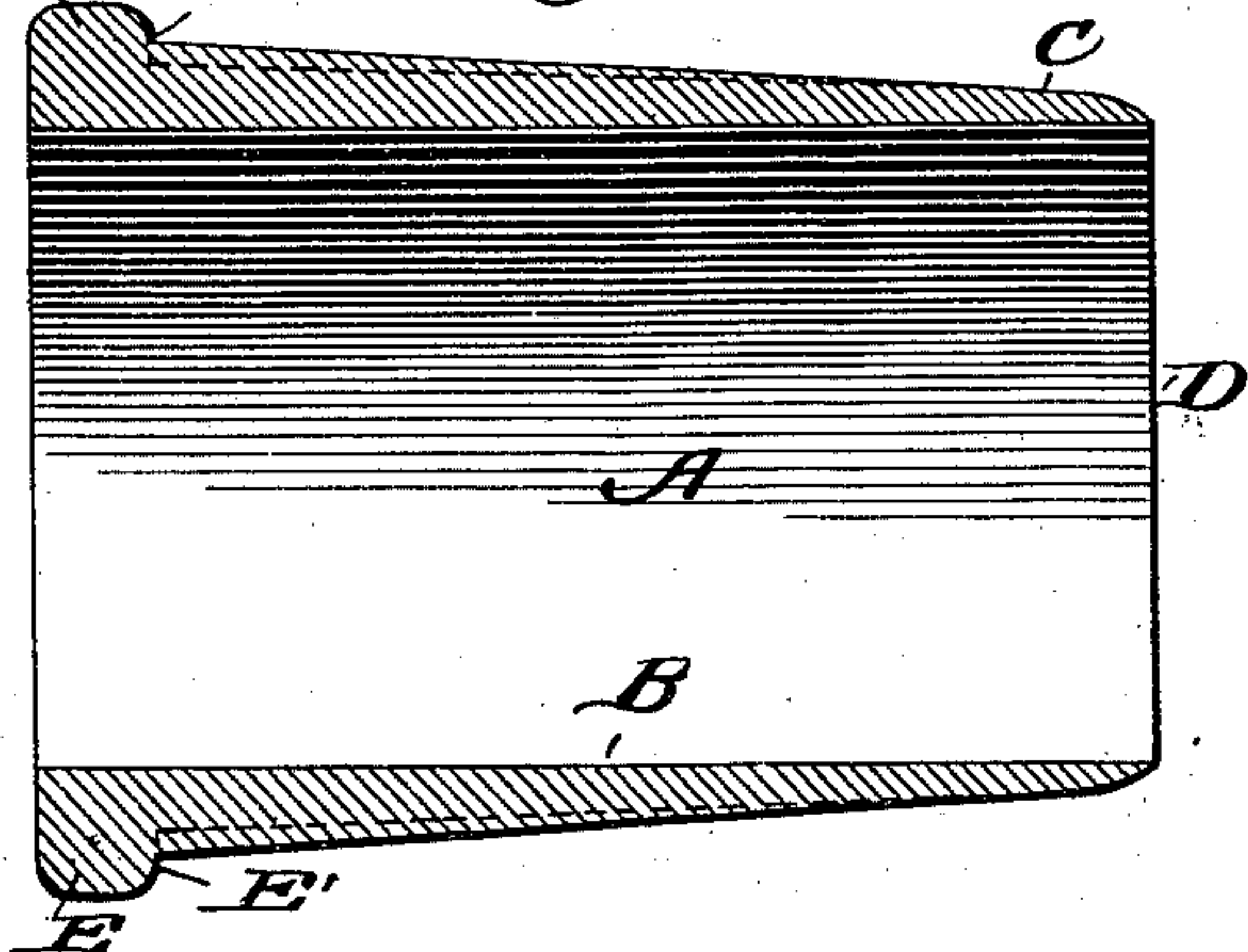


Fig. 3. E' 4

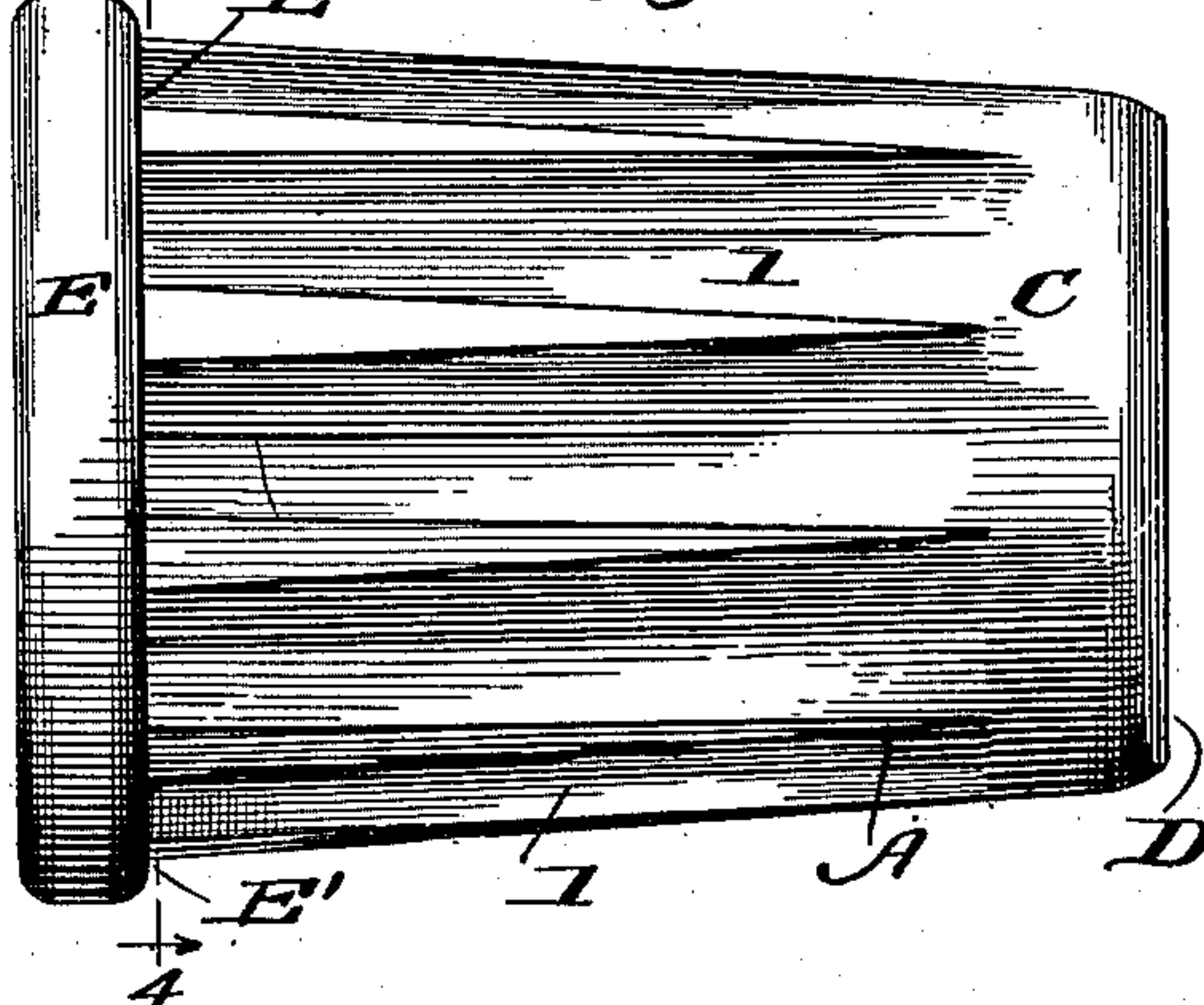


Fig. 5

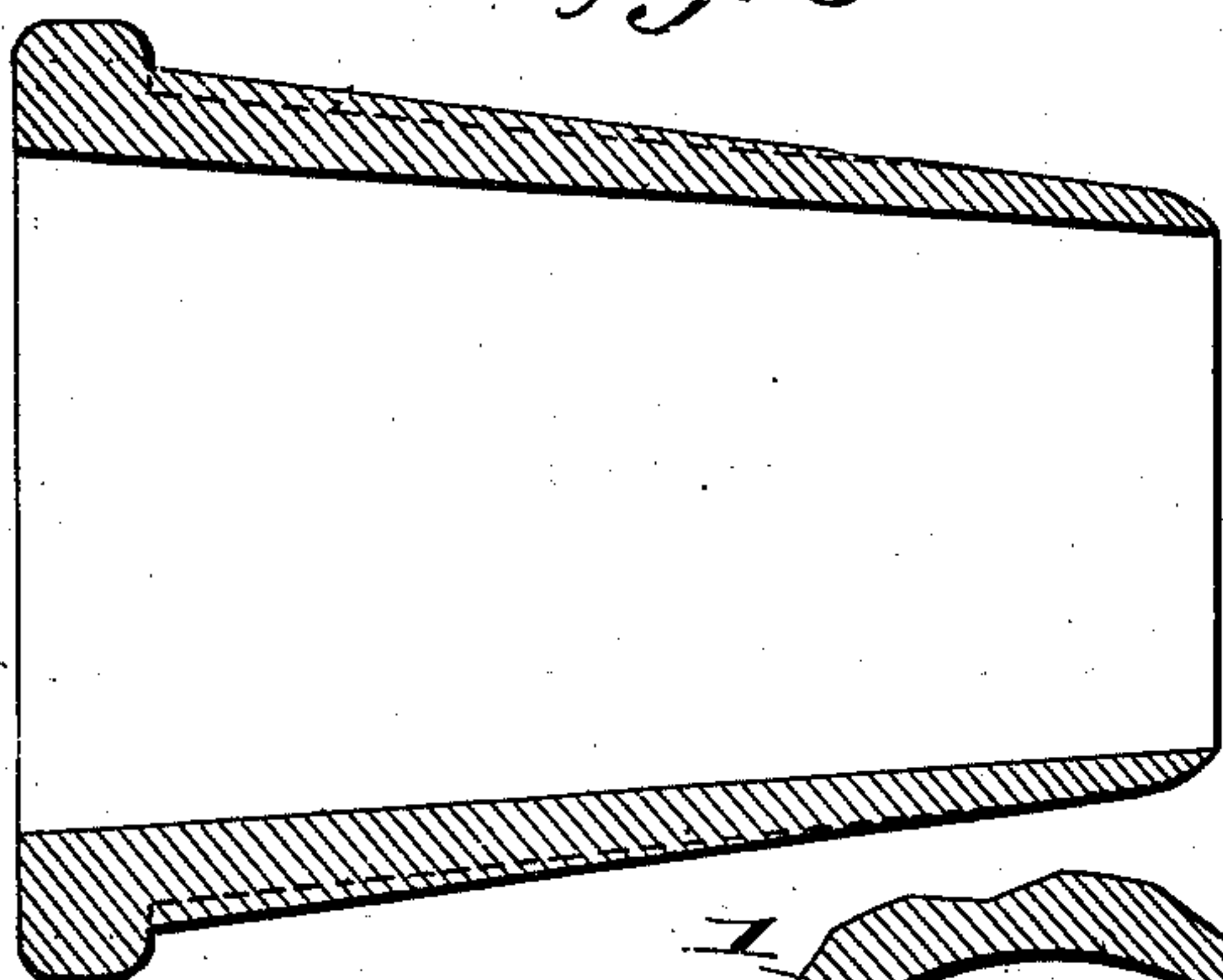


Fig. 6.

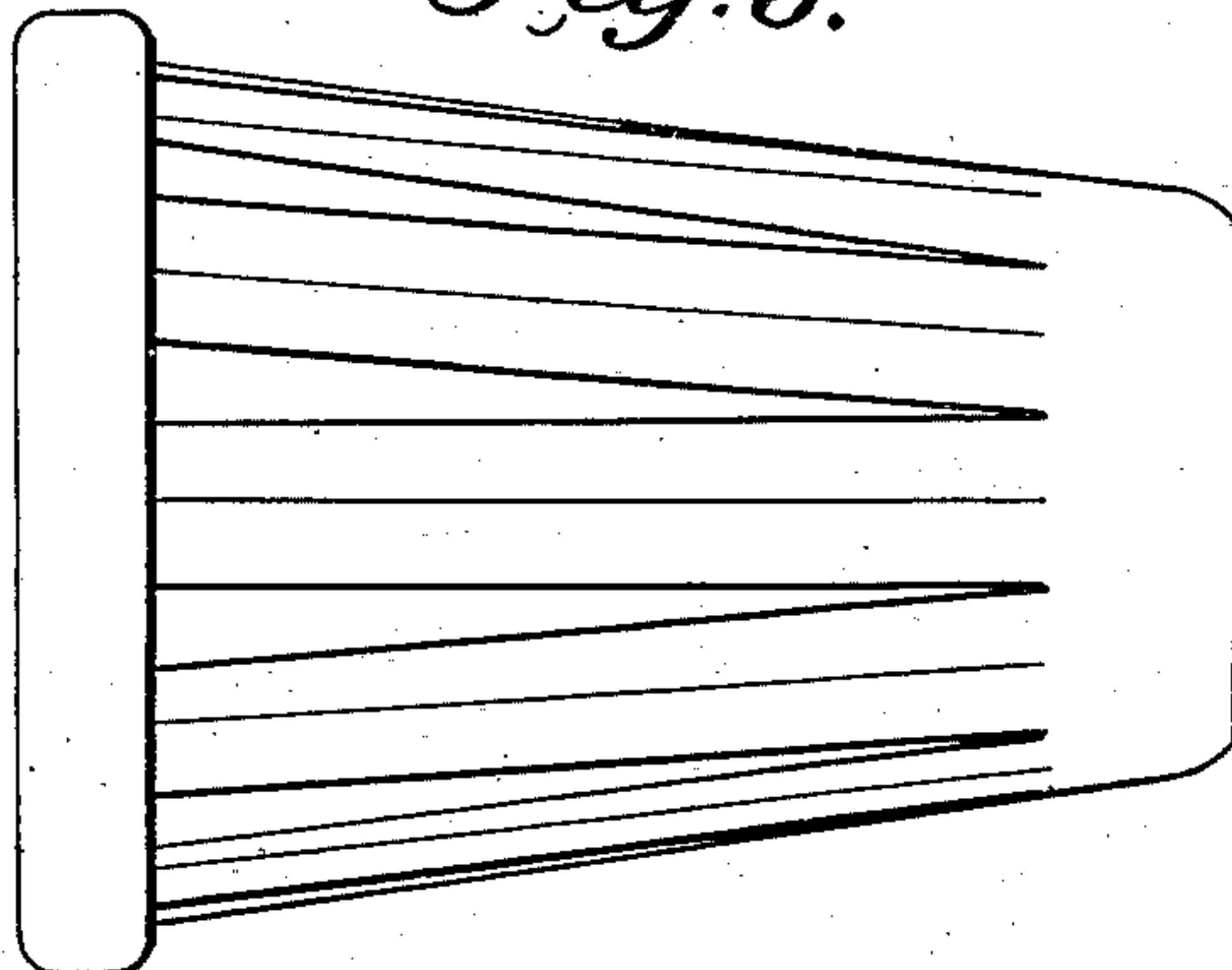
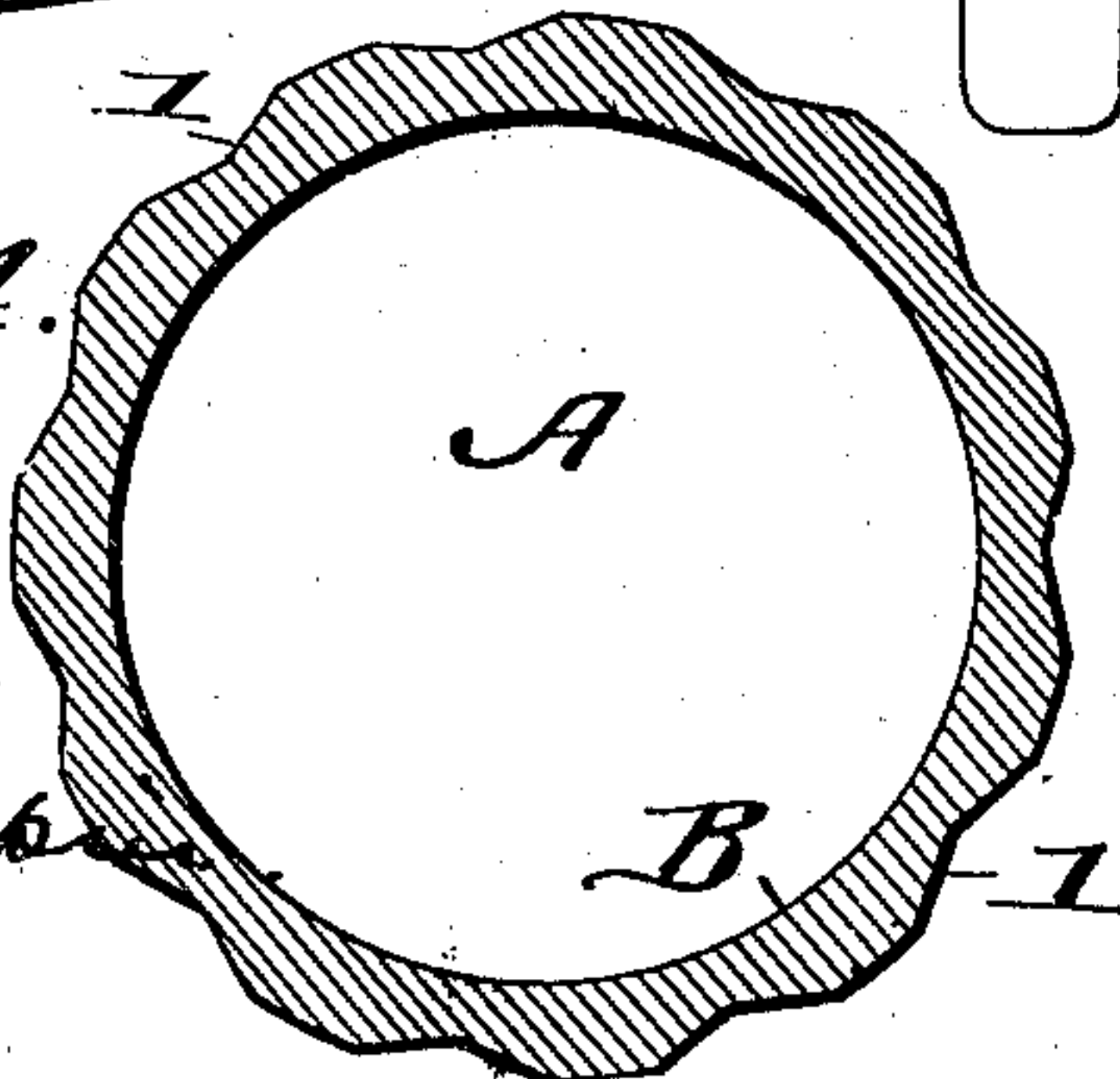


Fig. 4.

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# UNITED STATES PATENT OFFICE.

JOHN WILLIAM WIGGINS, OF SAVANNAH, GEORGIA.

## JOINT FOR PIPING.

SPECIFICATION forming part of Letters Patent No. 657,372, dated September 4, 1900.

Application filed May 17, 1900. Serial No. 17,063. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WILLIAM WIGGINS, residing at Savannah, in the county of Chatham and State of Georgia, have made  
5 certain new and useful Improvements in Joints for Piping, of which the following is a specification.

My invention is an improvement in joints for piping for use in the plumbing business  
10 for connecting pipes, such as lead and cast-iron soil and vent pipes, together; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

15 In the drawings, Figure 1 is a vertical longitudinal section of a joint embodying my invention. Fig. 2 is a detail longitudinal section of a joint-ferrule having its bore of uniform diameter. Fig. 3 is a side view of the  
20 ferrule shown in Fig. 2. Fig. 4 is a cross-section on about line 4 4 of Fig. 3, and Figs. 5 and 6 are respectively longitudinal section and side views of a joint-ferrule having a tapering bore.

25 The ferrule A may be made of brass, cast-iron, or other suitable metal that will stand the test and requirement of the city in which the ferrule is to be used. In practice it is my purpose to make the ferrule of different metals  
30 to meet all the requirements of the different city ordinances, and in light, standard, and extra-heavy weight to meet all requirements.

The ferrule A (shown in Figs. 2 and 3) has its bore B of uniform diameter and is provided at one end with the exteriorly-smooth surface C for a short distance from its point  
35 D and tapers gradually from its point D, enlarging toward its head or flange E. This flange E provides a shoulder E' at its inner  
40 edge, which forms a stop in driving the ferrule into a lead pipe and also forms a seat for the calking material in the production of the joint shown in Fig. 1. The portion of the ferrule between the smooth ring C and the  
45 flange E is corrugated or ribbed longitudinally at 1, producing a roughened surface for engagement by the interior of the lead pipe when the ferrule is applied thereto, as shown in Fig. 1.

50 In Figs. 5 and 6 the ferrule is shown substantially of the same construction as in Figs.

2 and 3, except that the bore is tapered, gradually reducing toward the point end of the ferrule, and a greater inclination or taper is given to the exterior of the ferrule.

55 In the use of the invention I heat one of the ferrules until it is quite warm and slip it inside the end of the lead pipe, which has been previously prepared to receive it, and drive the ferrule in until it reaches a point where  
60 the end of the lead pipe abuts the bead or shoulder of the head of the ferrule and then paste a piece of paper around it, when it is ready to be calked in the fitting F. (Shown in Fig. 1.) It will be noticed that the ferrule by  
65 reason of its construction is quite rigid within the lead pipe before the yarn is inserted at G before calking at H; also, that the end of the ferrule is so made that when the connection is completed the joint is perfectly smooth on  
70 the inside, which is an important feature from a sanitary standpoint and an improvement over the wiped joint, for it is seldom that a plumber gets a uniform surface on the inside of a wiped joint, and a small obstruction is  
75 liable to catch anything passing through the pipe. The longitudinal ribs or corrugations 1 operate to keep the ferrule rigidly in position and prevent it from moving rotarily in the lead pipe, as well as materially strengthen  
80 the ferrule, while the tapered exterior of the ferrule enables it to be readily fitted to any ordinary size of lead pipe.

The joint may be effected as shown in Fig. 1, wherein the lead pipe, with the attached  
85 ferrule, is inserted in the fitting F and the yarn G and calking H applied to complete the joint, as shown in the said figure.

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

1. A joint substantially as described comprising the pipe-sections, the ferrule tapered from end to end and having an end flange or shoulder and inserted in one of the pipe-sections and fitted therewith in the fitting of the  
95 other pipe-section, and the calking completing the joint substantially as set forth.

2. The joint herein described comprising the pipe-sections one of which has a fitting,  
100 the ferrule inserted in the end of the other pipe-section, tapered longitudinally on its



outer side and having a flange or bead at its large end, a smooth ring C at its small end and longitudinal ribs between said ring and flange, and the calking completing the joint  
5 substantially as set forth.

3. A ferrule for pipe-joints having its exterior tapered longitudinally and provided

with longitudinally-extended ribs substantially as set forth.

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Witnesses:

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