

(No Model.)

C. F. PIKE.
PNEUMATIC DESPATCH TUBE.

No. 573,037.

Patented Dec. 15, 1896.

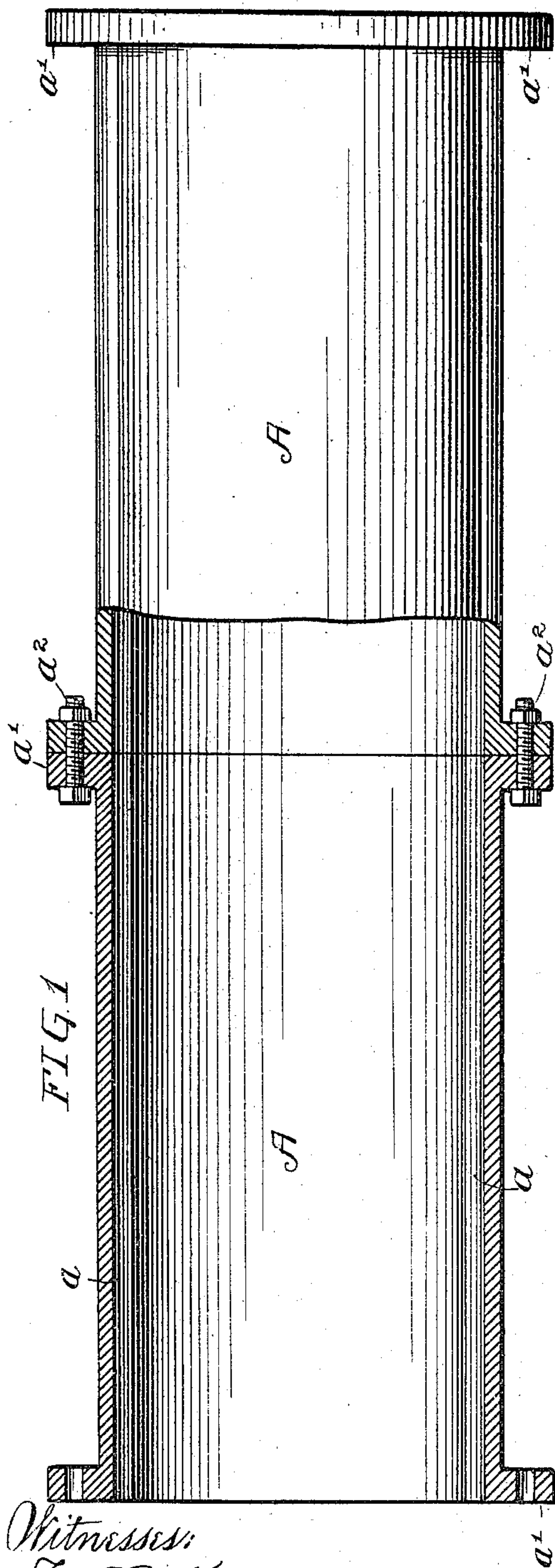


FIG. 3

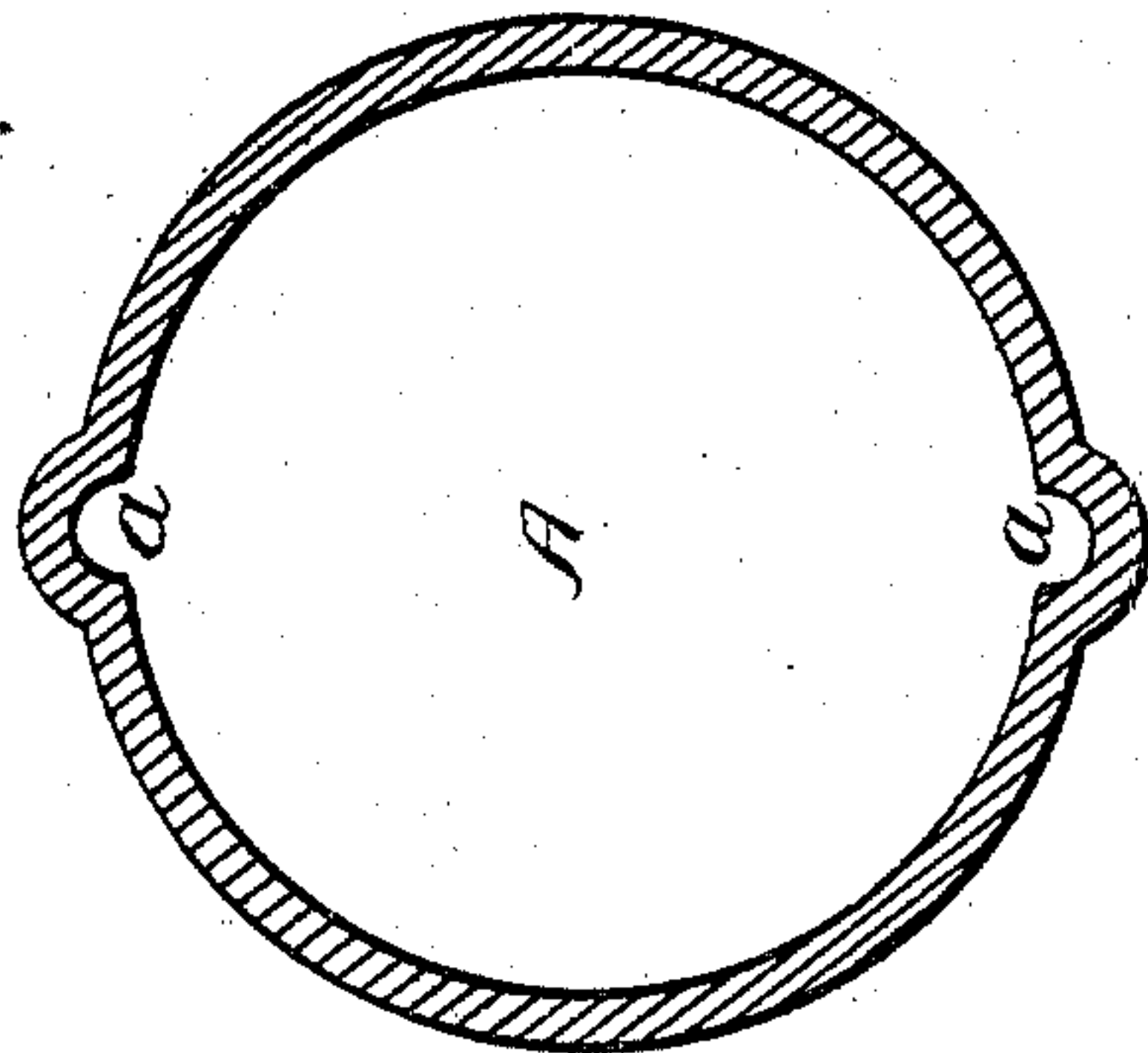
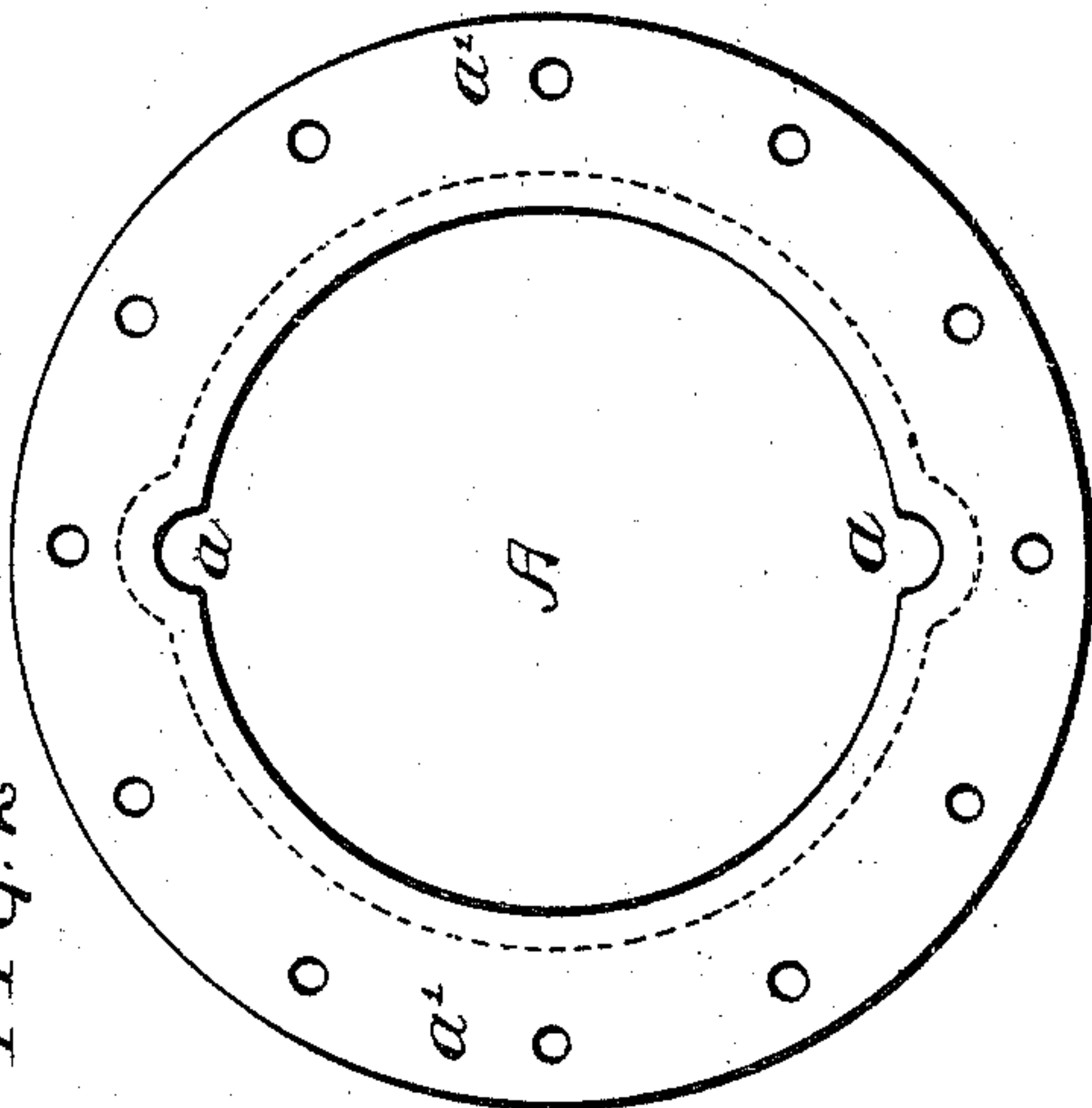


FIG. 2



Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

CHARLES F. PIKE, OF PHILADELPHIA, PENNSYLVANIA.

PNEUMATIC-DESPATCH TUBE.

SPECIFICATION forming part of Letters Patent No. 573,037, dated December 15, 1896.

Application filed May 31, 1895. Serial No. 551,219. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. PIKE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Pneumatic-Despatch Tubes, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has relation to the construction of pneumatic-despatch tubes, and more particularly to that class of pneumatic-despatch tubes which have a trackway for the carriers. The cost of rails and the expense of securing them in position within the tube increases the cost of construction to such an extent that in many cases it prohibits the use of pneumatic-despatch tubes. In securing the rails in position in said tubes it becomes necessary to employ rivets or bolts, which, through the action of the carriers, and especially so when traveling on curves and grades, causes the rivets or bolts to become loosened and the rails, in consequence thereof, disarranged, the carriers wrecked and broken, and the tube blocked, whereby the system is crippled and becomes inefficient. When the tube is buried, there is no way in which the condition of the rail can be ascertained except in a tube of sufficient diameter to enable a man to crawl through, in which case there is great waste of time and continual expense.

The object of my invention is to produce a tube that is cheaply made and so constructed as to render the disarrangement of the trackway impossible.

My invention accordingly consists of a pneumatic-despatch tube constructed as hereinafter more particularly described in the specification and pointed out in the claims.

Reference is had to the accompanying drawings, wherein—

Figure 1 is a side elevation of two sections of the tube, part in section. Fig. 2 is an end view of the tube. Fig. 3 is a cross-sectional view of the tube with the grooved trackway.

A A represent tube-sections.

a is the grooved trackway.

a' a' are flanges formed on the ends of the tube.

a² a² are bolts employed to secure the flanges together.

The tube-sections shown are made of cast-iron. The trackway is depressed and in the form of a groove, both top and bottom, each in vertical line with the other and diametrically opposite, extending longitudinally the entire length of the tube, and is cast in and forms part of the tube. This arrangement and construction avoids the additional expense heretofore mentioned, and, being a part of the tube, it cannot be disarranged unless the tube itself is destroyed. The trackway being in the form of a groove allows the tube to be cast of equal thickness of iron, which reduces the breakage when cast to a minimum. In casting one hundred and sixty-six twelve-foot sections twenty-four inches in diameter, all of which have been operated, none were lost in casting. A track-groove of this formation secures and allows the use of a carrier of maximum diameter relatively to the bore of the tube. Where the trackway is laid in the tube, it necessarily decreases the diameter of the carrier. The wheels of the carrier traveling in the grooved trackway have a convex periphery conforming to the curvature of the groove, which reduces the amount of friction from running therein to a minimum, especially in rounding curves, and necessarily requires less power for propelling the carrier at a higher rate of speed, which is thereby obtained.

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

1. A pneumatic-despatch tube having a smooth bore and trackways consisting of depressed longitudinally-disposed grooves sunk in the inner walls of the tube, substantially as described.

2. A pneumatic-despatch tube having a smooth circular bore and trackways consisting of two depressed longitudinally-disposed wheel guides or grooves provided integrally in the body of the tube, said wheel guides or

grooves being depressed in the walls of the tube beyond the line of the inner diameter of the tube, one groove being disposed diametrically opposite the other, substantially as described.

5 3. A pneumatic-despatch tube consisting of a main carrier-chamber circular in cross-section and grooved trackways integrally provided longitudinally in the walls of the said
10 tube opposite each other, said grooved track-

ways having rounded inner walls opening into said main chamber and disposed beyond the line of the inner wall of the main chamber, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

CHARLES F. PIKE.

Witnesses:

THOS. S. RODGERS,

JOHN H. HUDSON.