

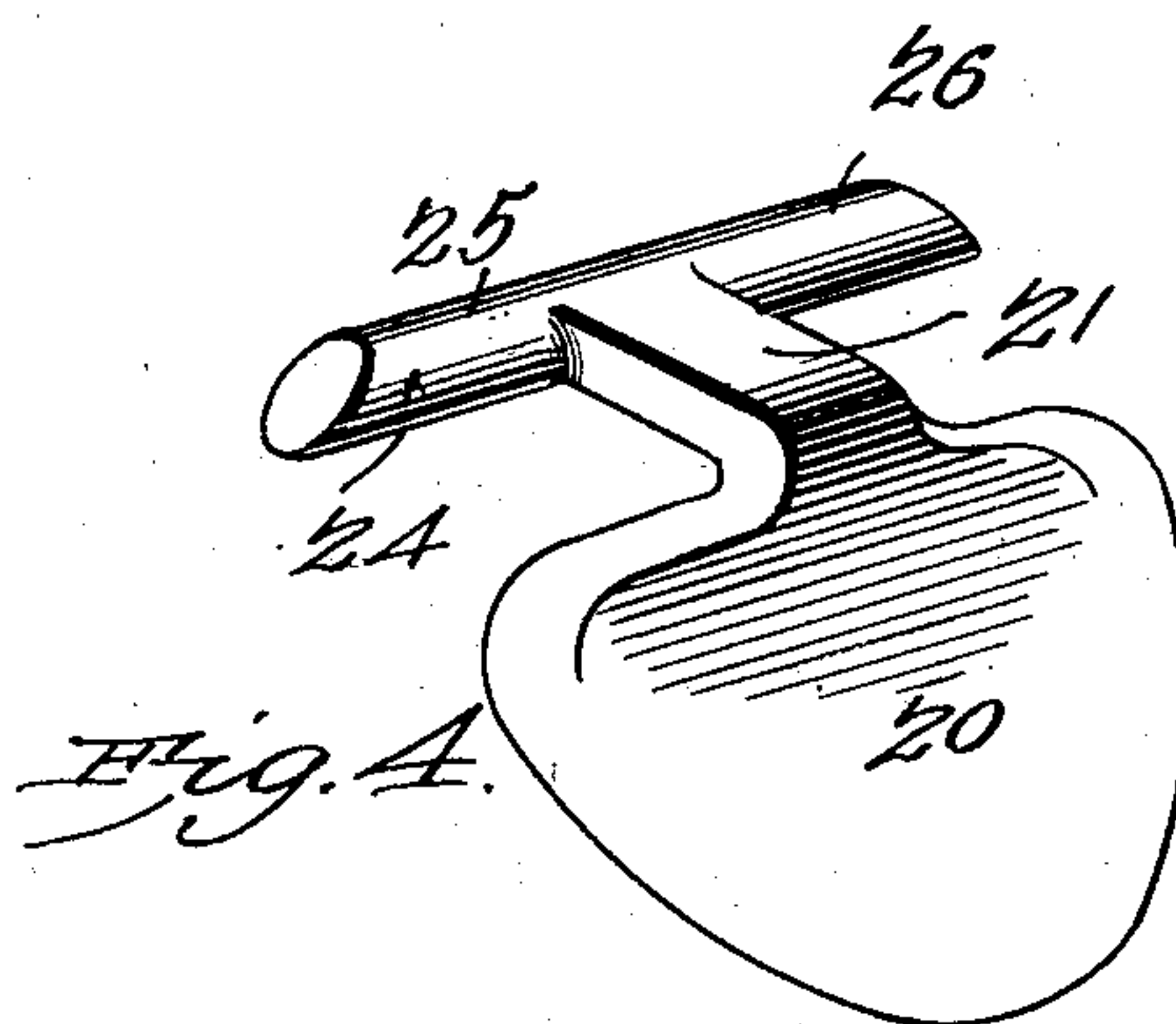
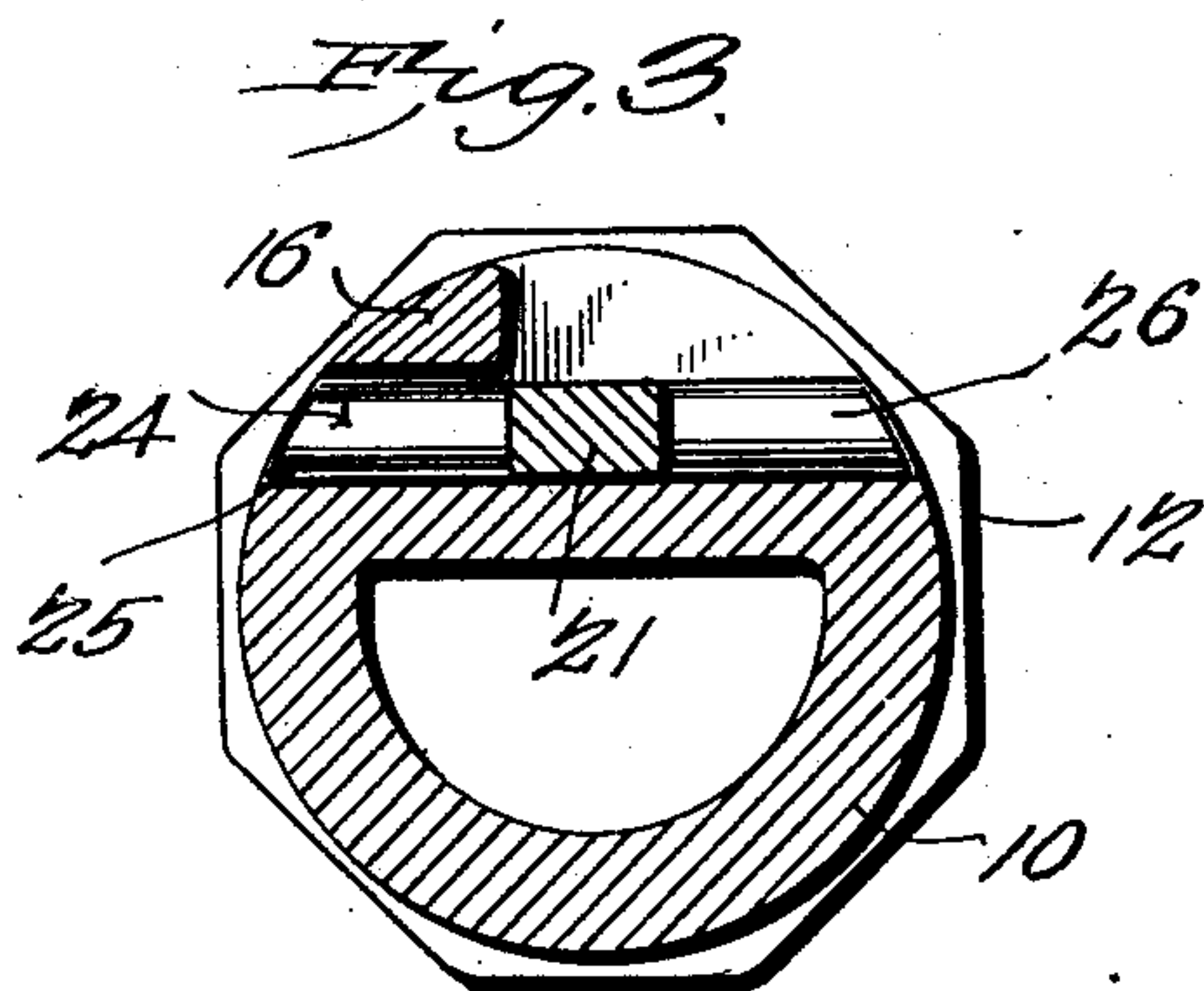
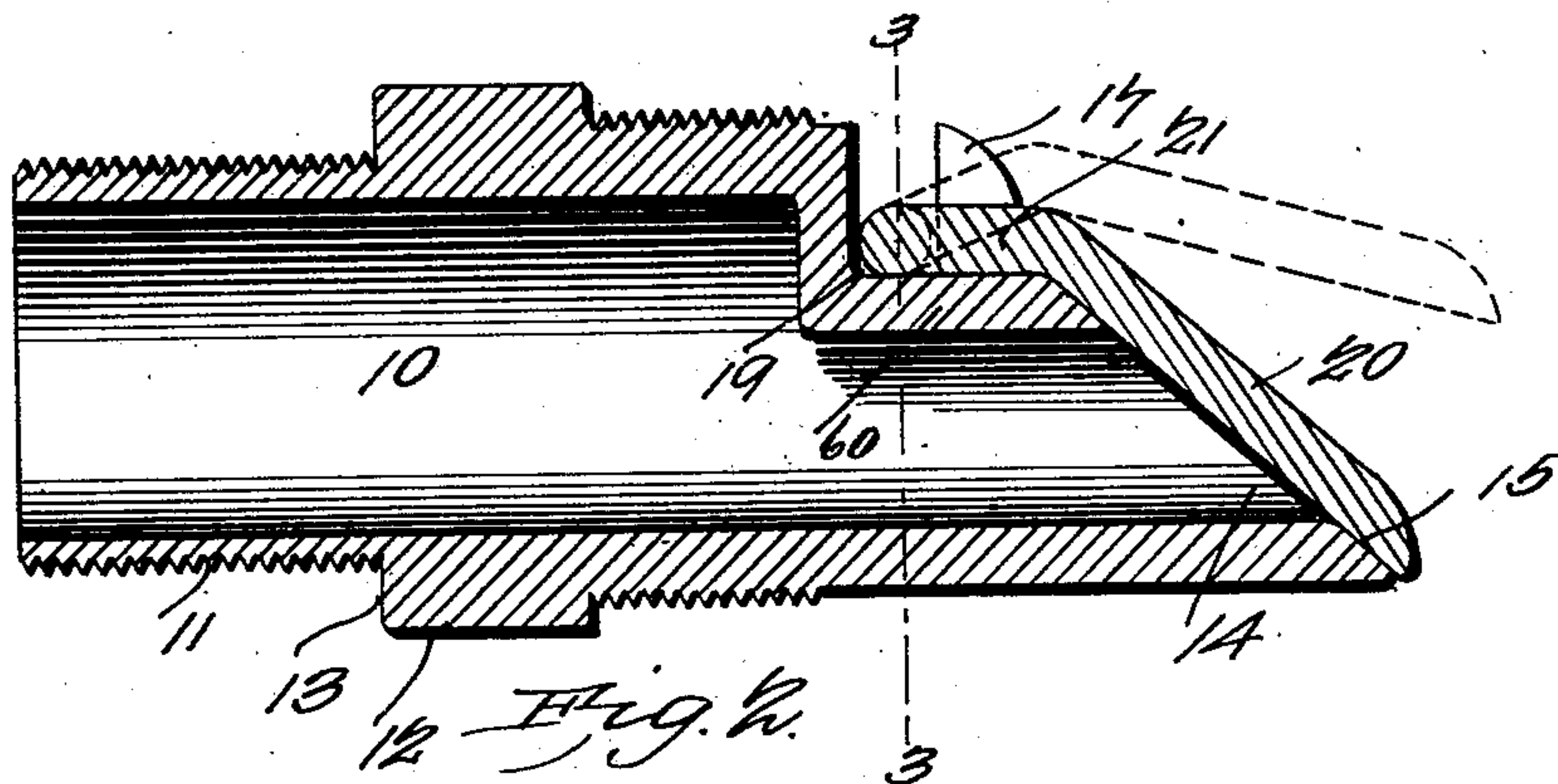
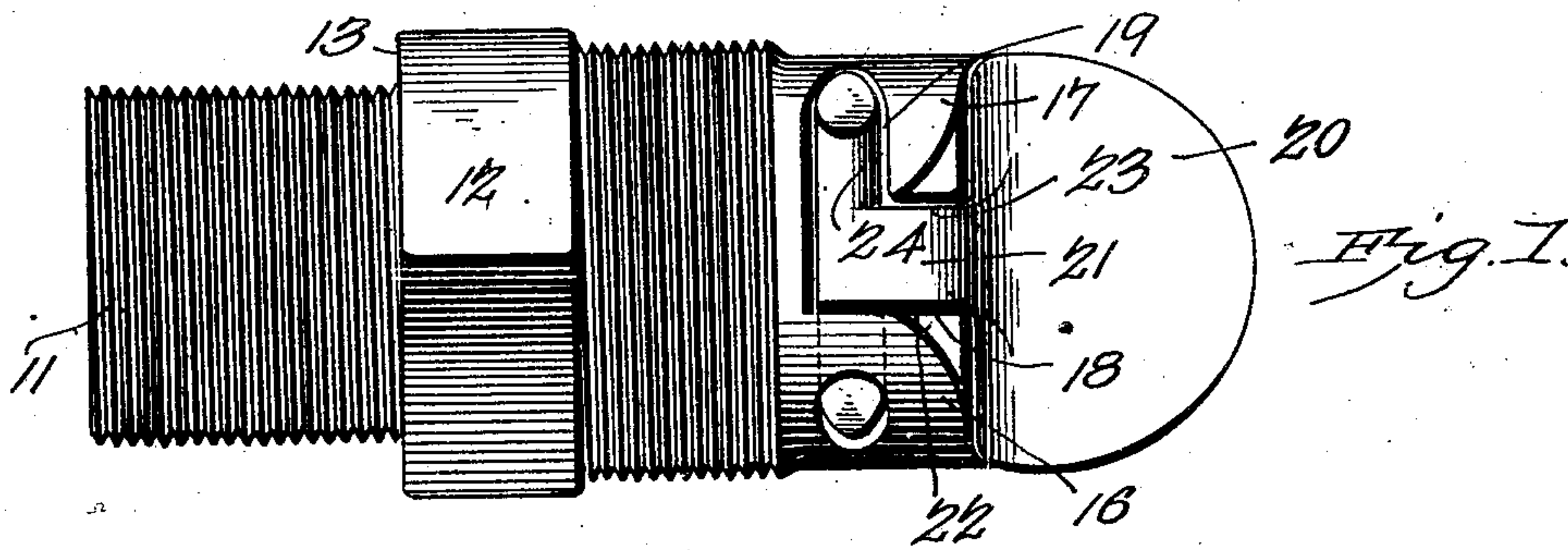
No. 705,255.

Patented July 22, 1902.

F. W. LEIDECKER.
CHECK OR CLACK VALVE.

(Application filed Jan. 4, 1902.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK W. LEIDECKER, OF MARIETTA, OHIO.

CHECK OR CLACK VALVE.

SPECIFICATION forming part of Letters Patent No. 705,255, dated July 22, 1902.

Application filed January 4, 1902. Serial No. 88,461. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. LEIDECKER, a citizen of the United States, residing at Marietta, in the county of Washington and State of Ohio, have invented a new and useful Check or Clack Valve, of which the following is a specification.

This invention relates to back-pressure valves, commonly known as "clack-valves."

10 The object of the invention is to provide a valve which is freely movable in its bearings and which has a peculiarly-constructed hinge which is especially adapted to this form of valve.

15 Figure 1 of the accompanying drawings represents a plan view of a pipe-section with this improved clack-valve applied thereto. Fig. 2 represents a longitudinal vertical section thereof, the open position of the valve 20 being shown in dotted lines. Fig. 3 represents a transverse section taken on line 3-3 of Fig. 2. Fig. 4 represents a perspective view of the valve detached.

The same reference-numerals indicate corresponding parts in all the figures.

25 In the form shown in the drawings the valve is shown applied to an exteriorly-screw-threaded pipe-section 10, which is adapted to be screwed into any form of pipe either directly or through the medium of a pipe-coupling. It is preferred to make these valves in connection with such a section, which may be made and sold as a separate article of manufacture and applied to any desired pipe 30 with which it is desired to use it, either in a gas-pipe or in a water system.

35 The pipe-section 10 is preferably made with a reduced exteriorly-screw-threaded portion 11, and near the center an enlarged collar 12 is formed, which provides an abutting shoulder 13 for the inner end of a pipe to be connected with said reduced portion. The collar 12 is preferably provided with angular faces, adapted to be engaged by a suitable 40 wrench for screwing the section 10 into a pipe or pipe-coupling. The front part of the section 10 on the inner side of the collar 12 is preferably made slightly larger in diameter than the portion 11 and is also exteriorly 45 screw-threaded to receive another pipe to be attached thereto. This front portion 14 is cut obliquely to its axis, as shown in Fig. 2,

to form an inclined valve-seat 15. The part above said valve-seat is closed in to form a bridge 60. At the rear of said valve-seat 15 55 two upwardly-extending lugs or shoulders 16 and 17 are formed, having an opening 18 between them adapted to receive the valve-stem, hereinafter to be described. A transverse opening or channel 19 is formed across the top 60 of the front end of the section 10, and the part of the pipe-section adjacent to the lug 17 is removed, leaving the channel 19 open at this point for a purpose hereinafter to be described. The upper ends of these should- 65 ders are rounded to conform to the shape of the contour of the section 10 and to adapt it to be readily inserted in a pipe. (Not shown.) A valve 20, preferably leaf-shaped and having a beveled or rounded upper face, is provided at the upper edge thereof with an upwardly and outwardly extending valve-stem 21, preferably made angular in cross-section and adapted to fit in the opening 18 between the lugs 16 and 17. The upper ends or edges 22 75 and 23 of the stem 21 are adapted to fit closely against the front lower edges of the lugs 16 and 17. The outer end of the stem 21 is connected to or made integral with a rod 24, extending at right angles to said stem and provided at its opposite end with beveled faces adapted to conform when in position to the contour of the pipe-section 10. The ends of said rod 24, disposed on opposite sides of the stem 21, will be designated as 25 and 26. 85

In assembling the parts the rod 24 of the valve is inserted in the channel 19, with the end 25 thereof extending through the closed portion at the back of the lug 16 and the end 26 thereof resting in the open portion of this 90 channel 19. The valve is then swung downward, and the stem 21 thereof fits in the channel or opening 18 between the lugs 16 and 17 and permits the clapper to seat itself on the valve-seat 15. The valve is thus locked 95 in position against sidewise movement, while permitting it to swing freely up and down or back and forth, according to the location of the pipe. When the section 10 is screwed into a pipe, the inner face of the pipe locks 100 the hinge against accidental upward or outward movement while permitting it to swing freely in its bearings formed by the channel 19 and the lugs 16 and 17.

It is obvious that this improved valve may be placed either vertically or horizontally, or it can be in line with the inlet and outlet or in any other desired position without affecting the operativeness of the valve.

This peculiar construction of the valve and its hinge connection avoids the necessity of using rivets or any other fastening means, which are liable to become rusty, wear out, or affect the operativeness of the valve in any such manner.

The valve herein shown and described embodies a removable self-adjusting clapper, which is a self-seater and which is drainable without interference.

I claim as my invention—

1. The combination with a pipe-section having an obliquely-cut-off discharge end and a closed-in portion or bridge above said discharge, of lugs rising from said bridge and a valve or closure for the oblique discharge end having a stem engaging between said lugs and having bearings therein, substantially as set forth.

2. A pipe-section having its discharge end cut obliquely to its axis and having a closed-in portion or bridge above such oblique dis-

charge, in combination with a valve seated upon the latter and having a stem seated between lugs upon the bridge-piece and having a transverse head or cross-piece engaging bearings in said lugs, the latter being beveled upon the front sides, substantially as set forth.

3. A pipe-section having an oblique discharge end and a closed-in portion forming a bridge above the same, lugs rising from said bridge and having beveled front sides and rounded edges corresponding with the contour of the pipe, one of said lugs being transversely perforated, and a transverse slot in the opposing lug, and a valve seated upon the oblique discharge end of the pipe and having a stem, engaging between the lugs rising from the bridge and provided with a cross-piece engaging the perforation and slot in said lugs, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FRANK W. LEIDECKER.

Witnesses:

HOWARD H. WENDELKEN,
HARRY J. MILLER.