

(No Model.)

3 Sheets—Sheet 1.

J. R. & J. B. GATHRIGHT.  
RAILWAY STREET SPRINKLER.

No. 570,990.

Patented Nov. 10, 1896.

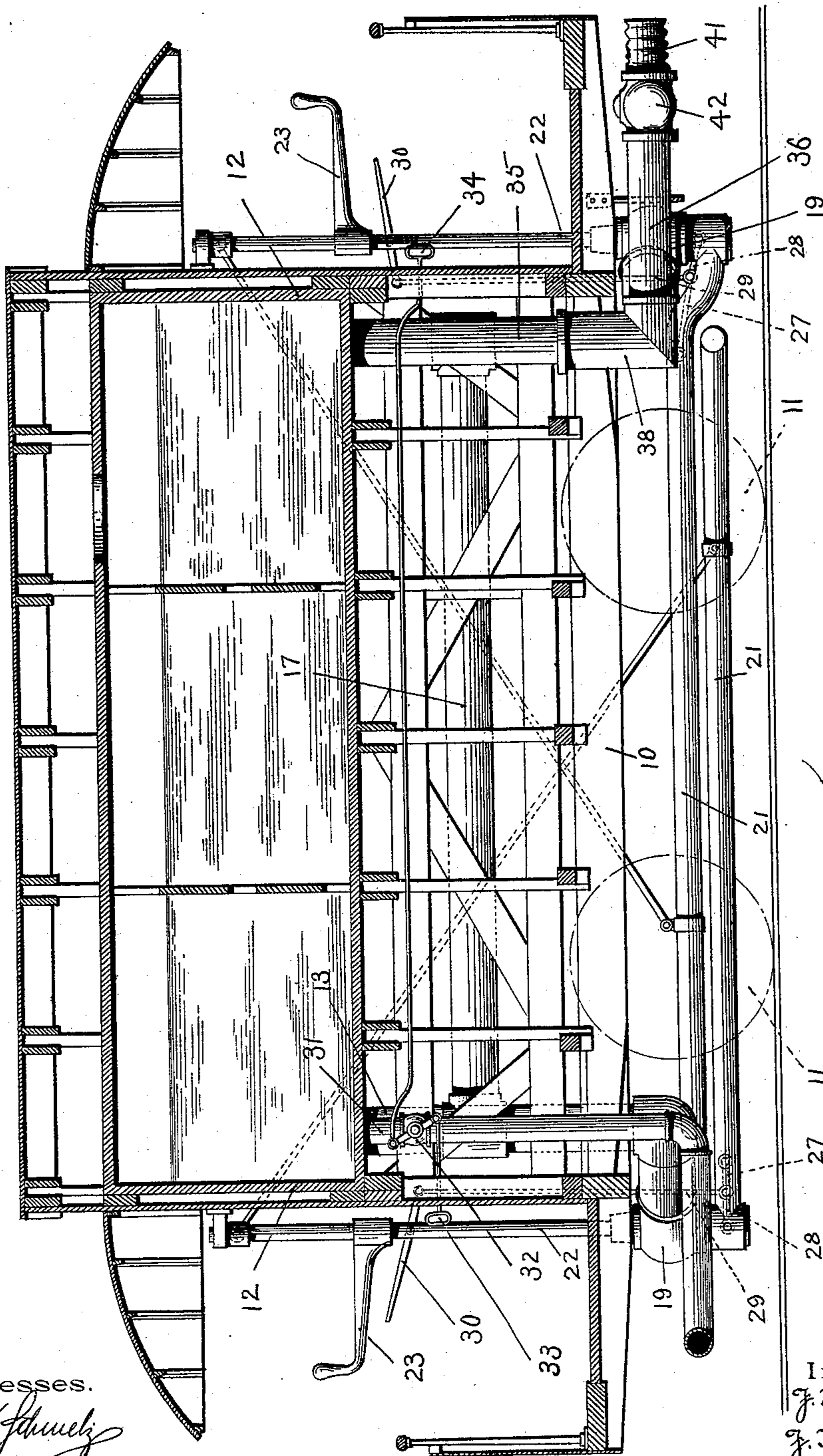


Fig. 1.

Witnesses.

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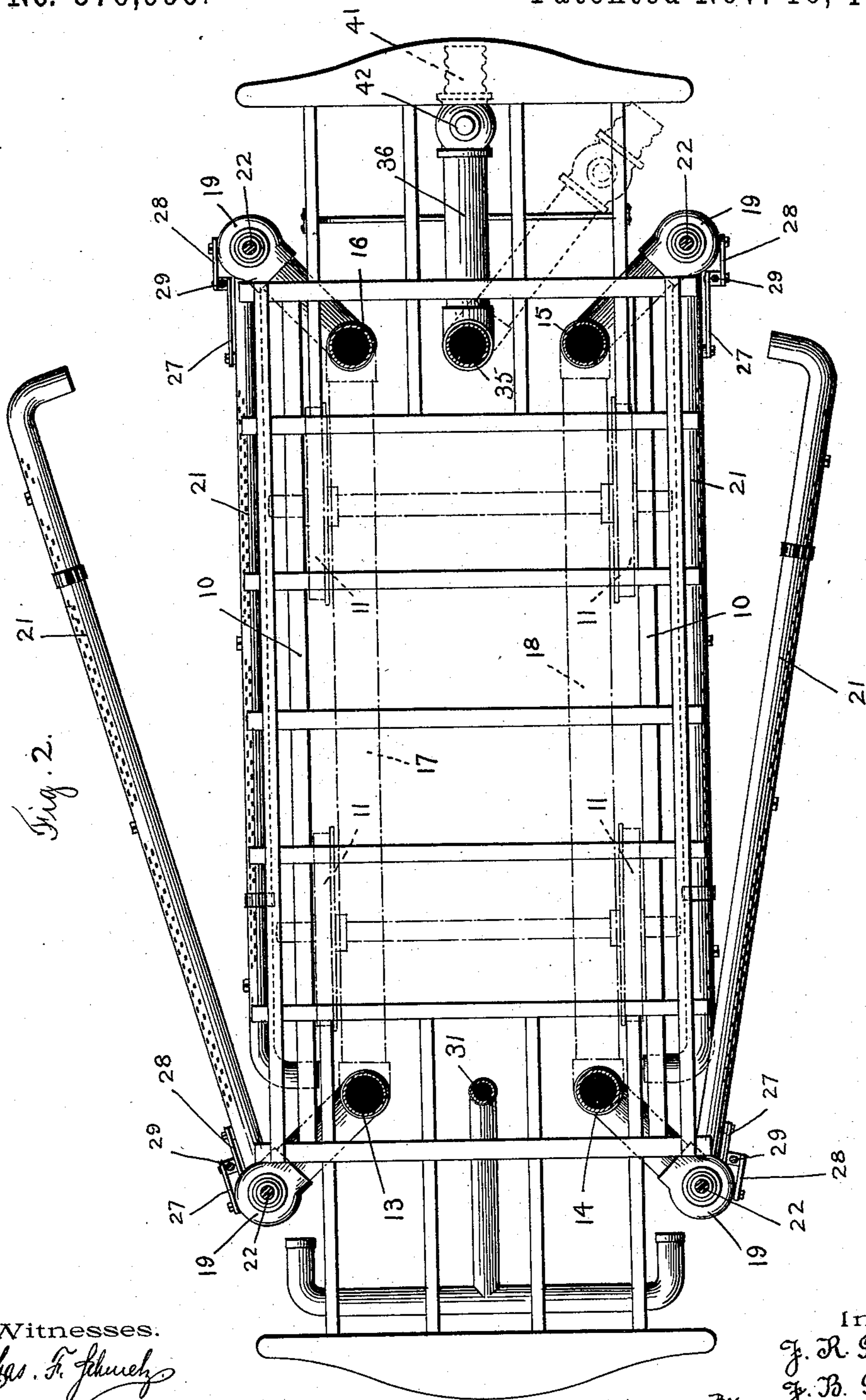
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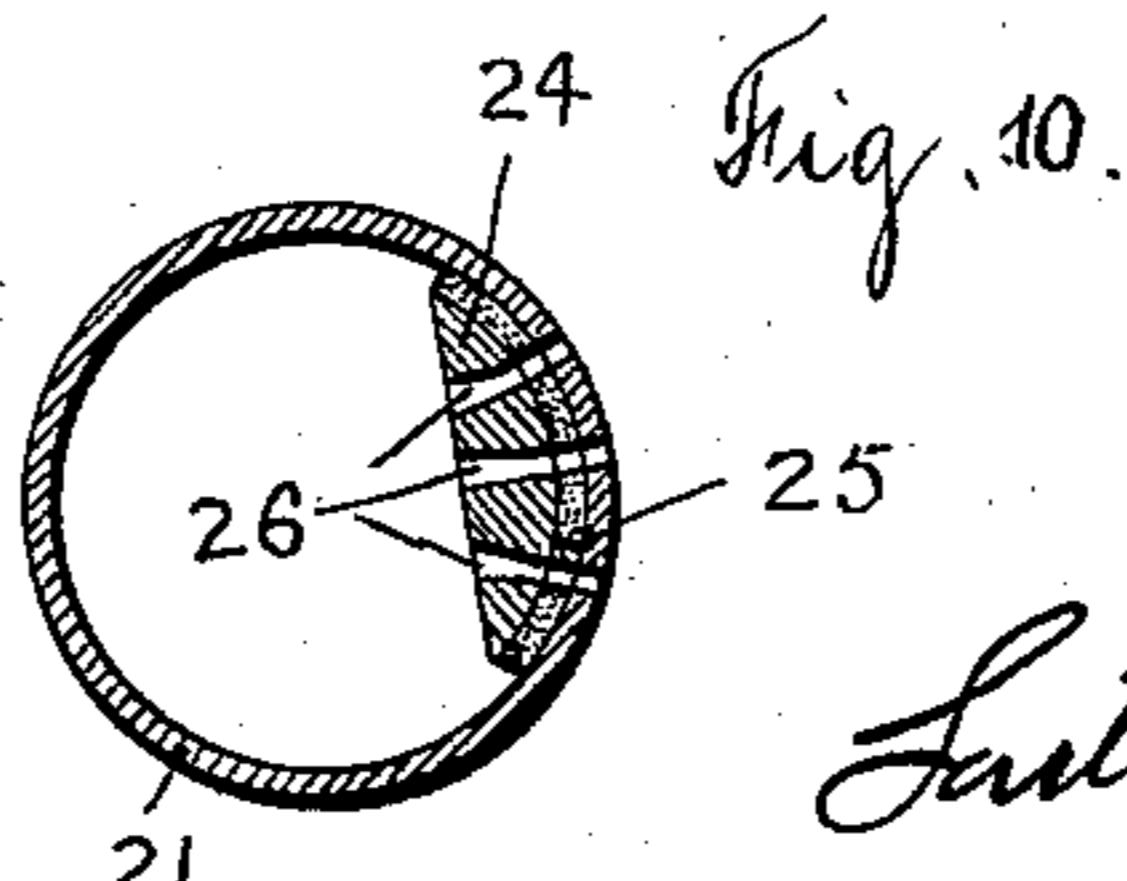
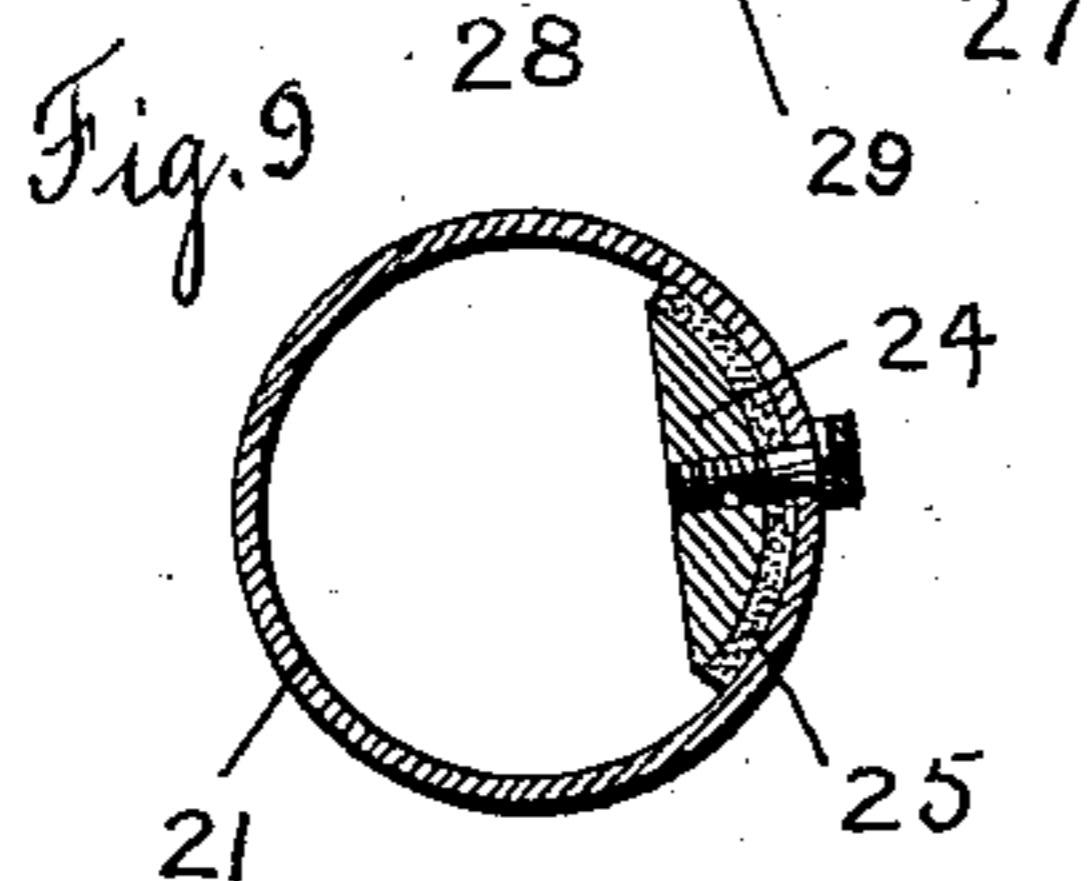
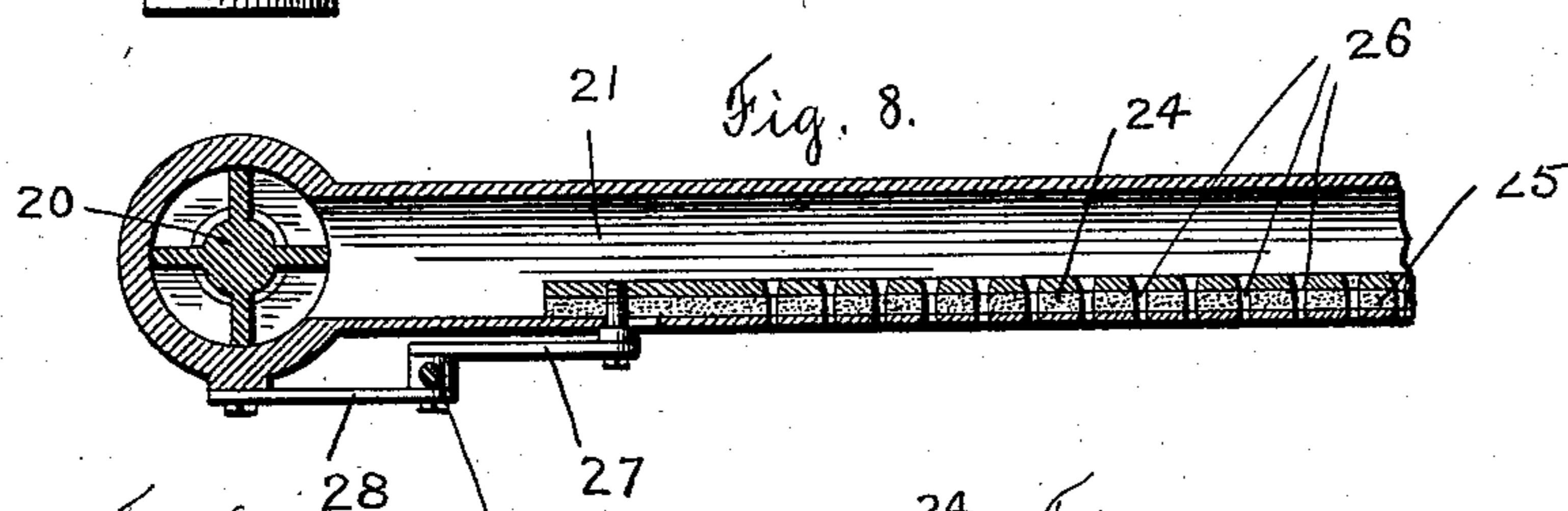
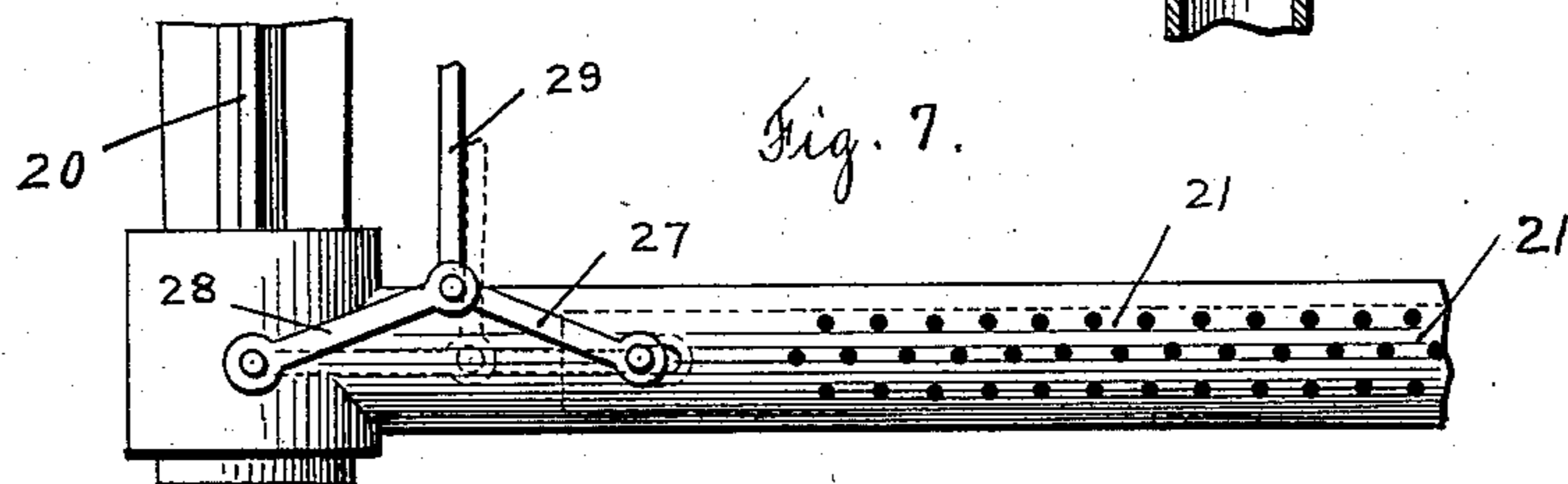
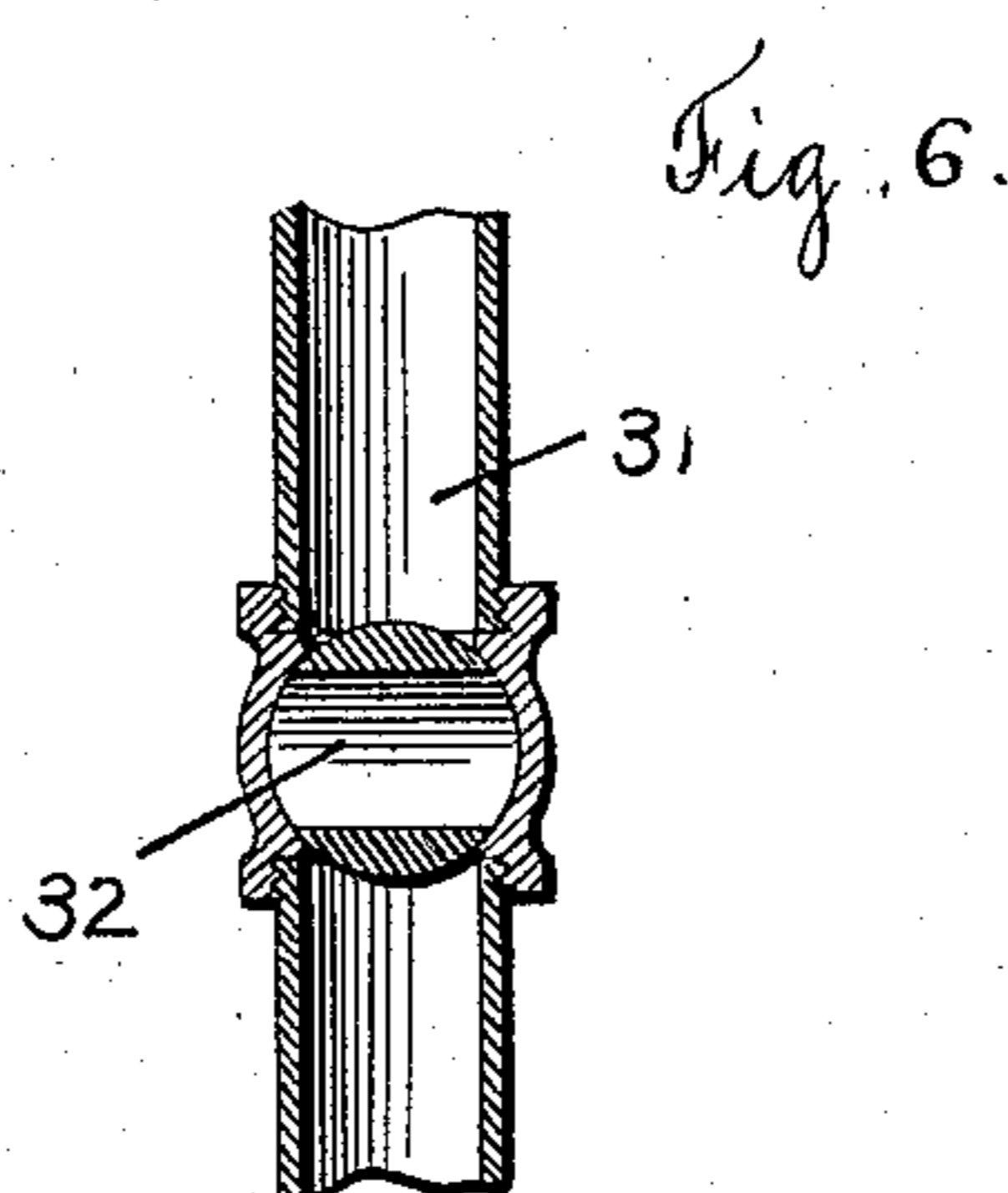
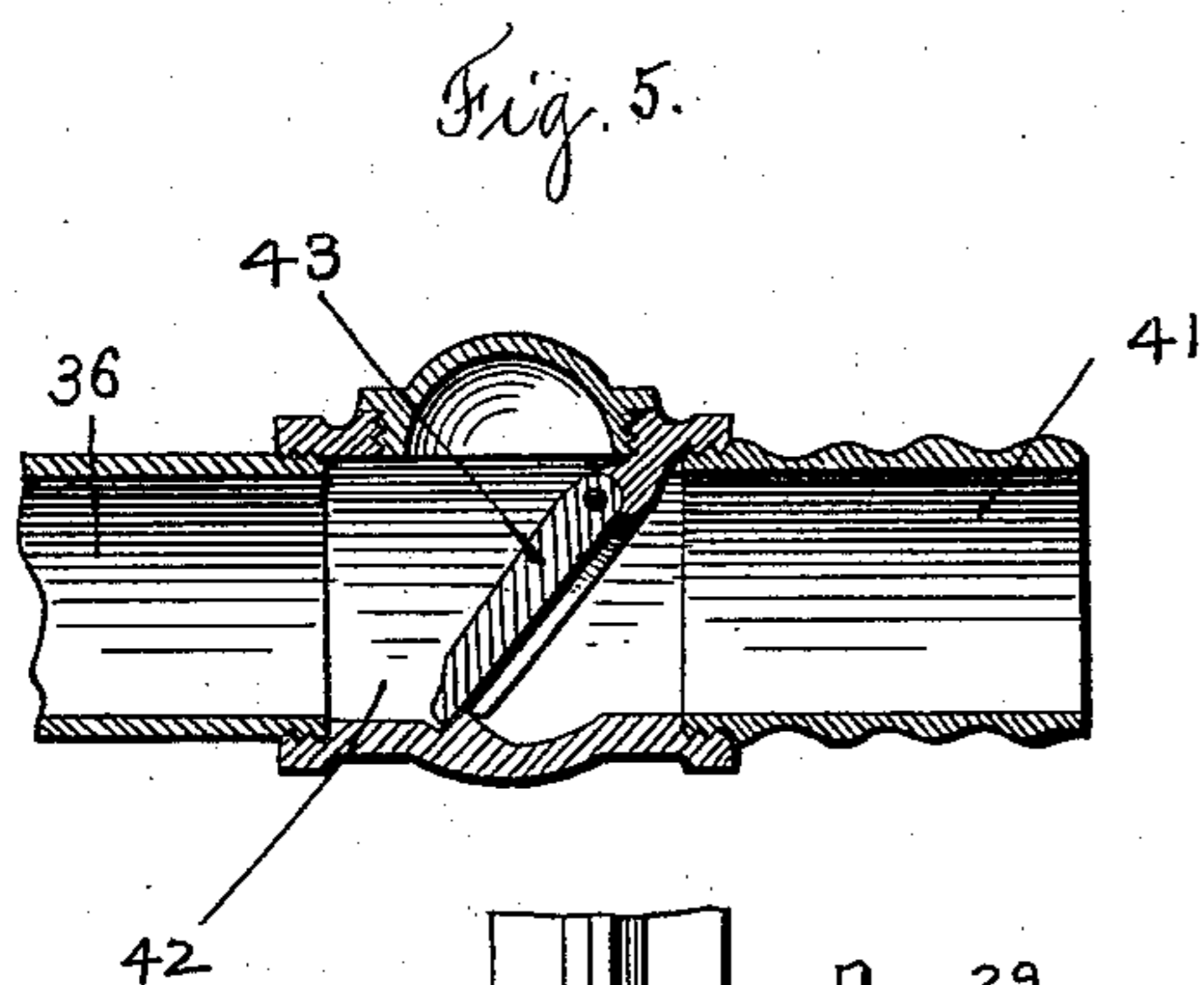
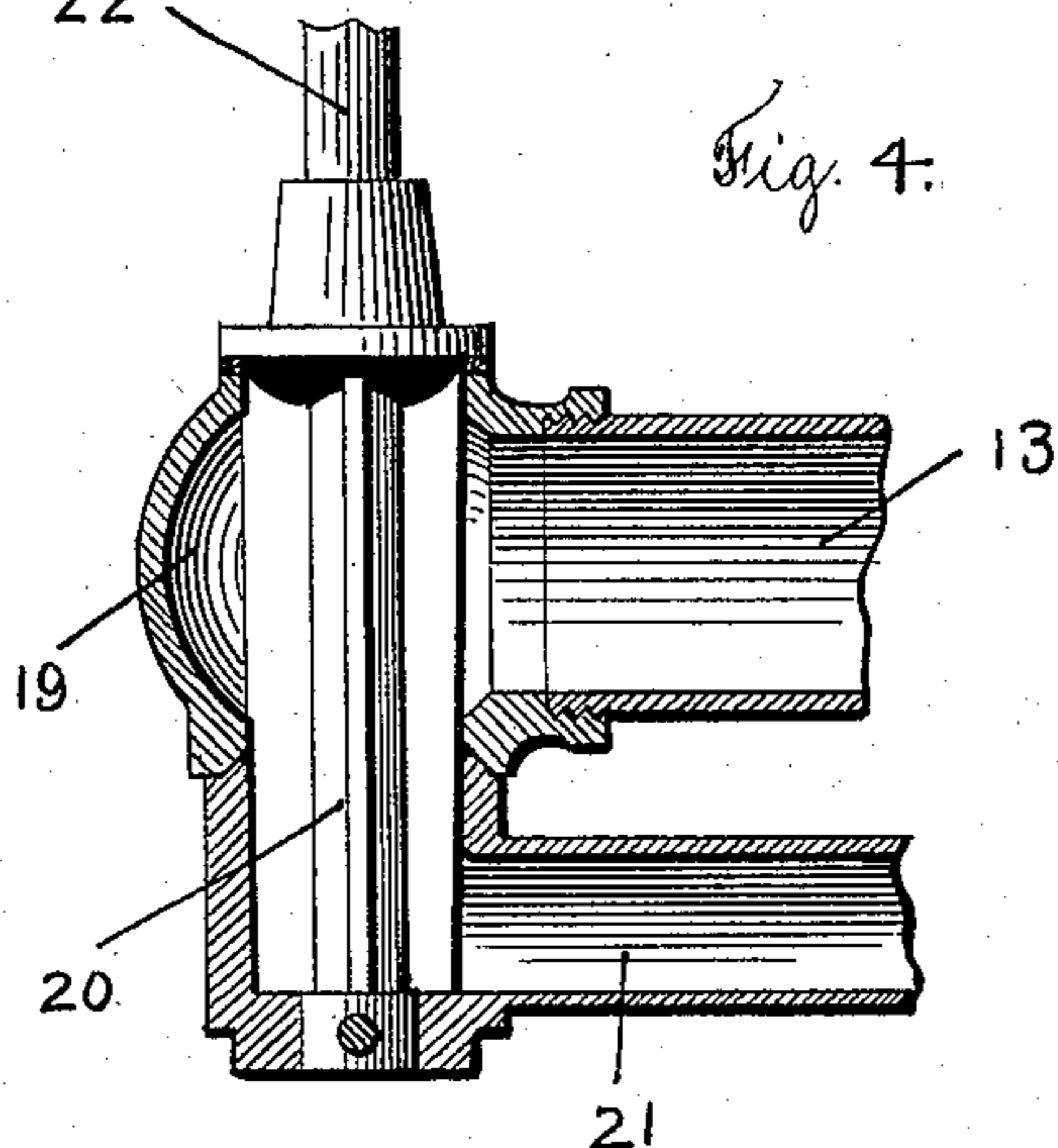
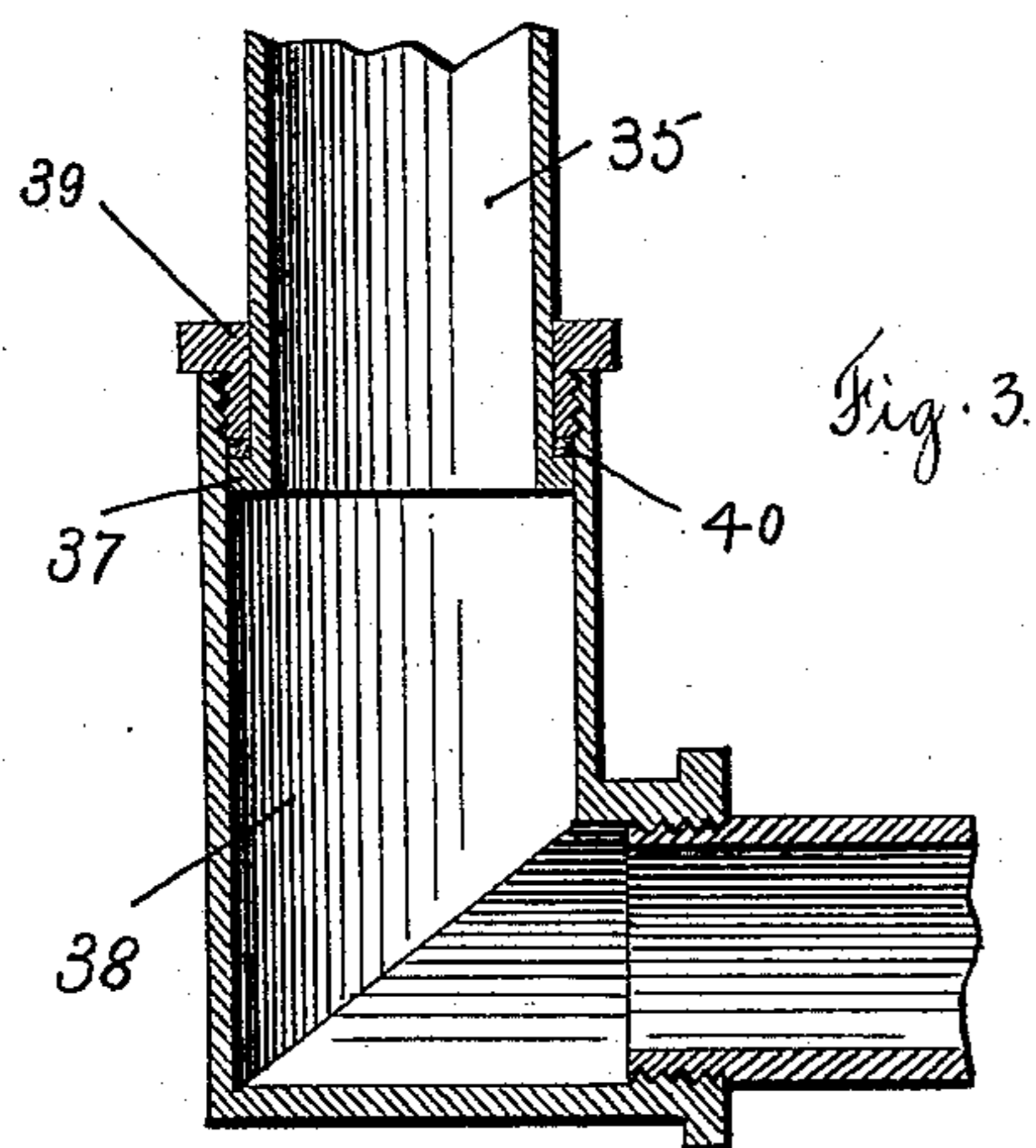
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# UNITED STATES PATENT OFFICE.

JOHN R. GATHRIGHT AND JOSIAH B. GATHRIGHT, OF LOUISVILLE, KENTUCKY, ASSIGNORS TO THE AMERICAN STREET CAR SPRINKLER COMPANY, OF WORCESTER, MASSACHUSETTS.

## RAILWAY STREET-SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 570,990, dated November 10, 1896.

Application filed March 20, 1896. Serial No. 584,033. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN R. GATHRIGHT and JOSIAH B. GATHRIGHT, citizens of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Improvement in Railway Street-Sprinklers, of which the following is a specification.

Our invention relates to that class of car-sprinklers which is illustrated in United States Letters Patent No. 378,672, granted to John R. Gathright February 28, 1888.

The objects of our present invention are to combine and arrange the sprinkling devices which are carried by the car-body so that the car may be run in either direction and the sprinkling devices may be operated to sprinkle the roadway on both sides of the track; to improve and swivel the filler-pipe, so that the tank which is mounted in the car-body can be filled from hydrants or sources of water supply at either side of the track, and to provide means for more efficiently cutting off and stopping the flow of water through the perforations in the sprinkler-pipe.

To these ends our invention consists of the parts and combinations of parts, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying three sheets of drawings, Figure 1 is a longitudinal sectional view of a car provided with sprinkling devices constructed according to our invention. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is a detail view illustrating the means which we preferably employ for swiveling or journaling the filler-pipe. Fig. 4 is a sectional view illustrating one manner of journaling or mounting a sprinkler-pipe. Fig. 5 is a detail view of a filler-pipe. Fig. 6 is a view of the shut-off valve for the track-sprinklers. Fig. 7 is a side view illustrating the sprinkler-pipe and the connections which we preferably employ for stopping the flow of water through the perforations therein. Fig. 8 is a sectional plan view thereof, and Figs. 9 and 10 are transverse sectional views of the same.

A car-sprinkler constructed according to our present invention comprises a car-body,

a tank mounted in said car-body, and four perforated sprinkler-pipes which are pivotally mounted so that they may extend out at an angle to the car-body or may be folded back parallel therewith, one of such sprinkler-pipes being mounted substantially at each corner of the car-body.

In operating the railway-car sprinklers, such, for example, as shown in Letters Patent No. 378,672, before referred to, it has heretofore been customary to provide the device with two pivotally-mounted perforated sprinkler-pipes located substantially at diagonally opposite corners of the car.

When the car is being moved in one direction, the perforated sprinkler-pipe at the forward end of the car will be thrown out to sprinkle the roadway at one side of the track, and when the car is moved in the opposite direction the other sprinkler-pipe will be then brought into operation to sprinkle the roadway at the other side of the track.

To sprinkle the roadway at each side of the track, it will therefore be seen that in a sprinkler of this character it is necessary to go twice over the same length of track. To overcome this objection, we have provided our street-sprinkler with four pivotally-mounted perforated sprinkler-pipes.

When the car is moving in one direction, the two front sprinkler-pipes will be thrown out and may be brought into action, so that we are enabled to simultaneously sprinkle or water the roadway at both sides of the track.

Referring to the drawings and in detail, 10 designates the car-body, which may be mounted upon wheels, as indicated at 11. Mounted in the car-body 10 and located as high as practicable, in order to get a sufficient degree of pressure to throw the water forcibly through the sprinkler-pipes, is a tank 12. These parts have substantially the same operation as the corresponding parts shown in Letters Patent No. 378,672, before referred to, and need not be herein described at length.

Leading from the tank 12 are four vertical supply-pipes 13, 14, 15, and 16. The vertical supply-pipes are located substantially at each corner of the car. The supply-pipes 13 and 16 are connected by a horizontal pipe, as 17, 100

and the supply-pipes 14 and 15 are connected by a horizontal pipe 18, as indicated by dotted lines in Fig. 1. Casings, as 19, are secured on the end of each of the supply-pipes. 5 Pivotally mounted in each of the casings 19 are parts 20, having guide-wings, as most clearly shown in Fig. 4. Extending up from and connected with each of the parts 20 are vertical shafts 22, having operating-handles, 10 as 23. Fastened on the lower ends of the plugs 20 and turning therewith are sprinkler-pipes 21.

The sprinkler-pipes 21 may be arranged at different levels, so that they will not interfere 15 with each other when they are folded back parallel with the car-body, or they may be offset, so as to fold one over the other, as illustrated in Fig. 1. The sprinkler-pipes 21 are provided with perforations along one side. Fitting inside of each of the sprinkler-pipes 21 are shut-off slides, as 24, having suitable bearing or packing faces, as 25. The shut-off slides 24 are provided with perforations 26, which correspond with and may be brought into alignment with the perforations in the sprinkler-pipes. 25 At one end each of the shut-off slides 24 is connected to a pair of toggle links or levers 27 and 28. The toggle links or levers 27 and 28 are connected by links 29 to handles 30, which are pivotally mounted in the vertical operating-shafts 22. By manipulating the handles 30 the shut-off slides 24 can be shifted inside of the sprinkler-pipes, and the flow of water through the perforations can be instantly turned on or off, as desired. 35

The devices or valves which have heretofore been used for turning on and off the water for the sprinkler-pipes have ordinarily been located some distance away, and on account of the water which has already passed 40 the controlling-valve when the same is closed the water will continue to flow through the perforations in the sprinkler-pipe for some little time after the valve is shut.

In the actual use of a car-sprinkler for sprinkling roadways it is very desirable to provide accurate means for shutting off the supply of water, so that as the car moves along the water may be shut off to leave the cross- 50 walks dry.

By providing a shut-off slide which acts in connection with the perforations in the sprinkler-pipe we have provided means for instantly turning on or off the supply of 55 water, as desired, and have arranged the devices so that the same may be easily manipulated and operated.

Extending down from the middle of the tank 12, near one end of the car-body, is a 60 pipe 31 for supplying a sprinkler-pipe for sprinkling between the tracks upon which the car runs. Located in the pipe 31 is a shut-off valve 32. Connected to suitable arms, so as to turn the shut-off valve 32, are links, 65 which are provided with handles, as 33 and 34, said handles being located so that they can be operated from opposite ends of the car,

respectively. Extending down from the middle of the tank 12, near the opposite end of the car-body, is a vertical pipe 35. Pivotally 70 mounted on the lower end of the pipe 35 is a filler-pipe 36. As illustrated most clearly in Fig. 3, the vertical pipe 35 is provided at its end with a collar 37. Secured on the end of the filler-pipe 36 is an elbow 38, having a 75 collar 39 threaded therein. A packing-ring, as 40, is secured in place between the threaded collar 39 and the shoulder 37. By means of this construction it will be seen that the filler-pipe 36 can be swung or turned about 80 the vertical pipe 35, so that it will extend to either side of the car, as desired.

In a double-track electric railway the hydrants which are ordinarily employed for filling the tanks of the street-car sprinklers 85 are ordinarily located between the tracks.

By mounting the filler-pipe so that the same can be swung or turned to either side of the car-body, as desired, the filler-pipe may be turned so as to come into position to co- 90 operate with the hydrant when the car is upon either track of the road, that is to say, the filler-pipe can swivel or turn so that it may be moved into position to cooperate with a source of water supply at either side of the 95 car. At its end the filler-pipe is provided with a coupling or nozzle 41 for receiving a hose or flexible connection. Adjacent to the nozzle 41 is a valve-casing 42, containing a check-valve 43 for preventing the water from 100 escaping from the filler-pipe.

In this application we do not claim the specific location of the check-valve which we have illustrated, as the same is claimed in our companion application filed March 20, 105 1896, Serial No. 584,034.

By locating the check-valve 43 immediately adjacent to the nozzle 41 we are able to retain substantially all of the water which enters the filler-pipe and do not waste the con- 110 tents of the filler-pipe, as in devices which have heretofore ordinarily been employed.

We are aware that many changes may be made in car-sprinklers by those who are skilled in the art without departing from the 115 scope of our invention as expressed in the claims. We do not wish, therefore, to be limited to the construction which we have shown and described; but

What we do claim, and desire to secure by 120 Letters Patent of the United States, is—

1. The combination of a car-body having wheels arranged to run on a track in the ordinary manner, a tank mounted in said car-body, a vertical pipe extending down from 125 the tank near one end of the car-body, and a horizontal filler-pipe pivotally mounted on said vertical pipe, whereby said filler-pipe may be swiveled or turned to cooperate with sources of water supply at either side of the 130 track, substantially as described.

2. The combination of a car-body, a tank mounted in said car-body, a pivoted sprinkler-pipe, shut-off slides, and connections for

actuating the same, said shut-off slides and their actuating connections being mounted to swivel or turn with the sprinkler-pipe, whereby the flow of water through the perforations in the sprinkler-pipe may be accurately controlled, substantially as described.

3. The combination of a car-body, a tank mounted therein, a pivoted sprinkler-pipe, a vertical operating-shaft therefor, shut-off slides carried by the sprinkler-pipe, and a handle mounted upon and turning with the vertical shaft, and connected to actuate the shut-off slides, substantially as described.

4. The combination of a car-body, a tank mounted in said car-body, a pivoted sprinkler-pipe connected to said tank and having perforations along one side, a shut-off slide mounted inside of the sprinkler-pipe and having perforations corresponding with the perforations in the sprinkler-pipe, a vertical operating-shaft for the sprinkler-pipe, a handle carried by the vertical shaft, and connections from said handle to actuate the shut-off slide, substantially as described.

5. The combination of a supply-pipe, a casing carried by said supply-pipe, a piece pivotally mounted in said casing, a shaft extending from the upper end of said piece, a perforated sprinkler-pipe connected to the lower end of said plug, a shut-off slide adapted to cover the perforations in said sprinkler-pipe,

and a handle pivotally mounted on said shaft, and connected to actuate said shut-off slide, substantially as described.

6. The combination of a car-body, a tank, a pivoted sprinkler-pipe connected to said tank and having perforations along one side, a shut-off slide adapted to cover the perforations in said sprinkler-pipe, and toggle levers or links connected to actuate said shut-off slide, said toggle levers or links being mounted upon and turning with the sprinkler-pipe, substantially as described.

7. The combination of a supply-pipe, a casing carried by said supply-pipe, a piece pivotally mounted in said casing, a shaft extending from the upper end of said piece, a perforated sprinkler-pipe connected to the lower end of said plug, a shut-off slide adapted to cover the perforations in said sprinkler-pipe, toggle levers or links connected to said shut-off slide, and a handle pivotally mounted on said shaft, and connected to actuate said toggle levers or links, substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

JOHN R. GATHRIGHT.

JOSIAH B. GATHRIGHT.

Witnesses:

E. S. FOOTE,

OWEN GATHRIGHT, Jr.