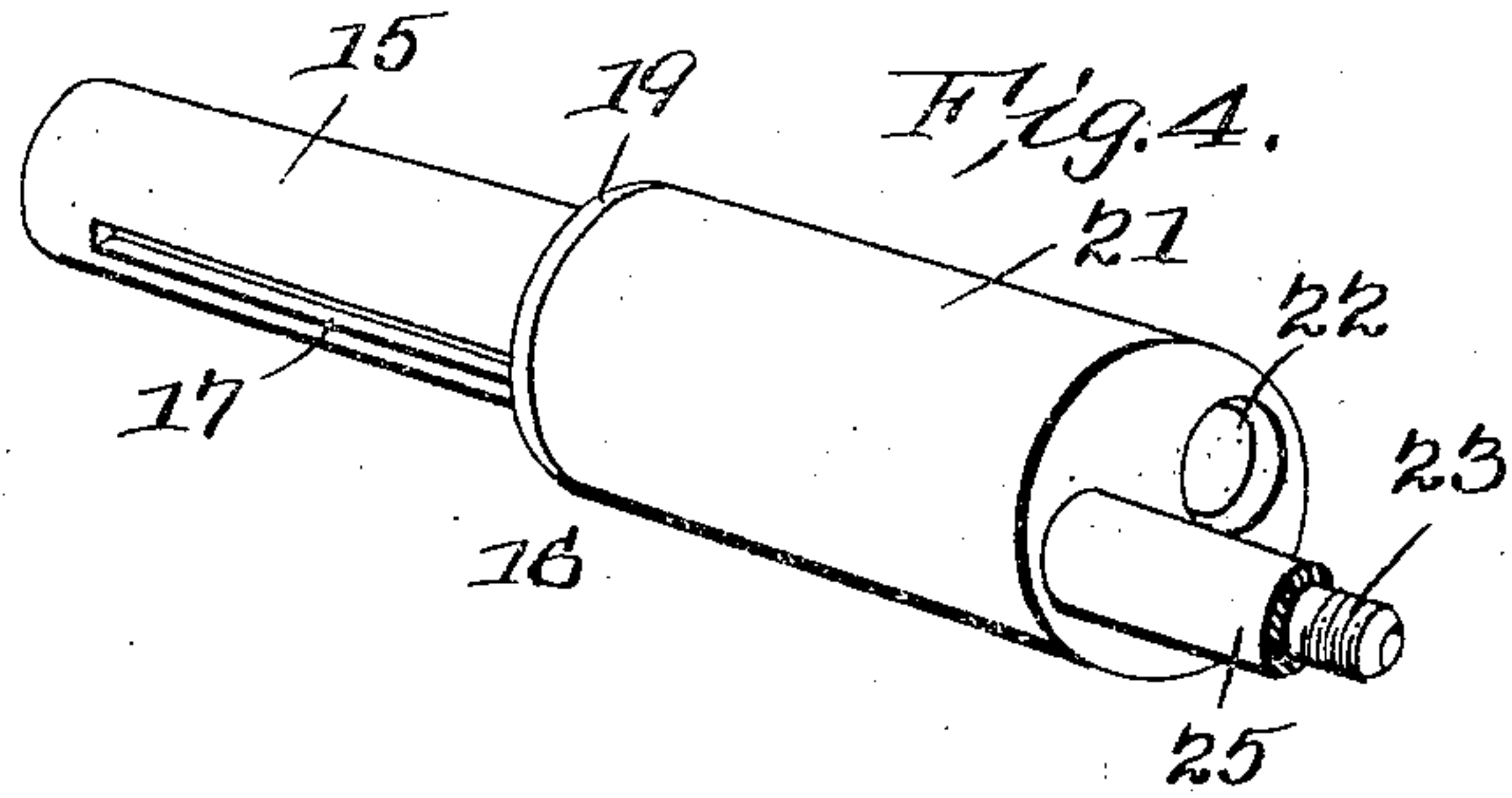
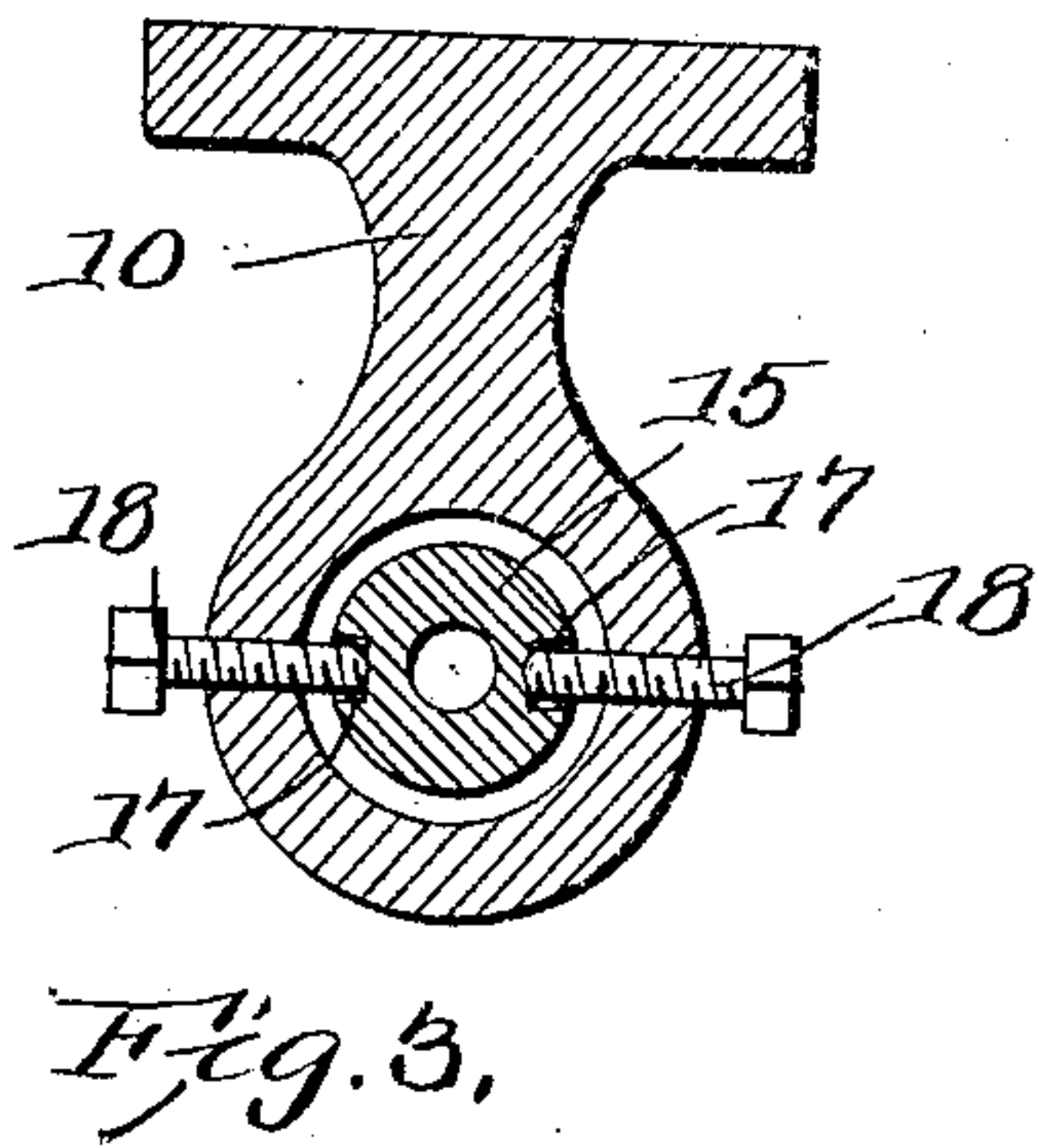
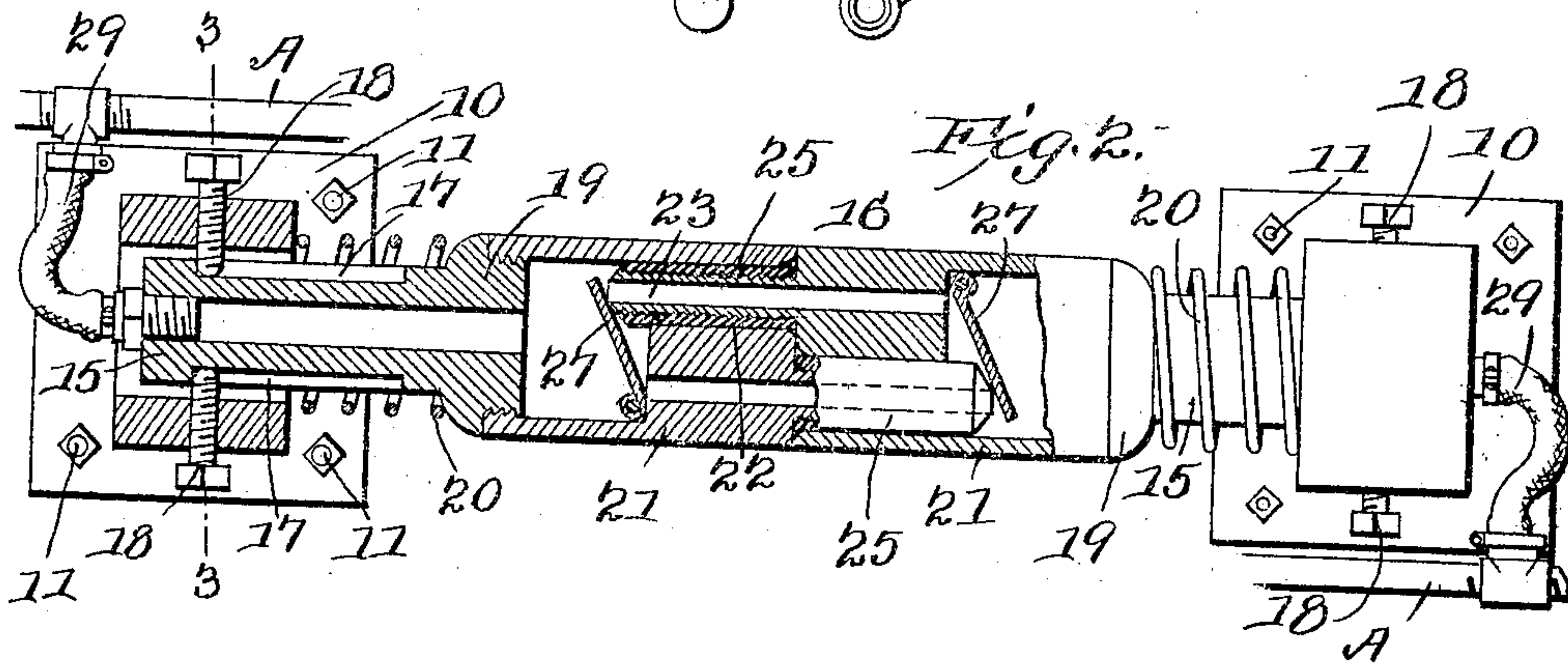
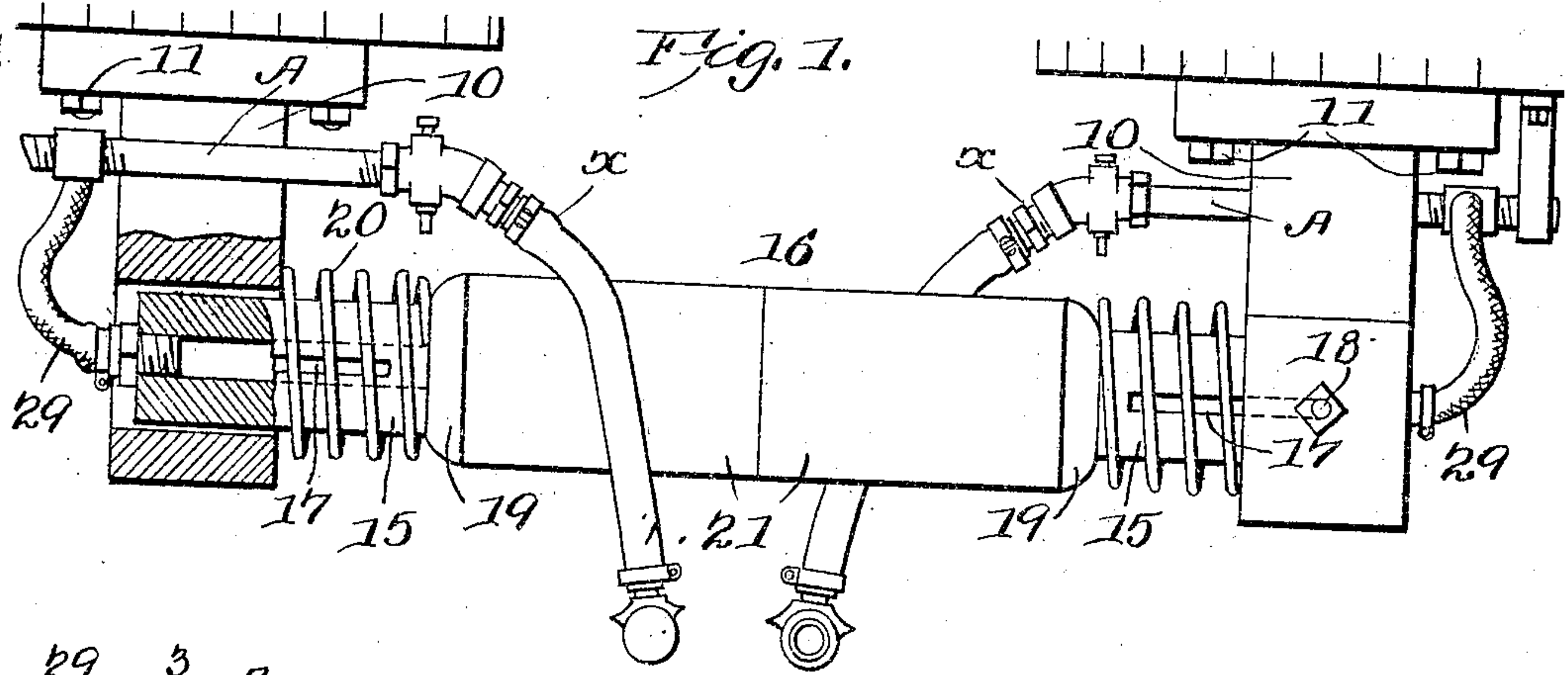


No. 829,895.

PATENTED AUG. 28, 1906.

L. M. SARTAIN.
TRAIN PIPE COUPLING.
APPLICATION FILED APR. 30, 1906.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LOUIS MARTAIN SARTAIN, OF COALMONT, TENNESSEE.

TRAIN-PIPE COUPLING.

No. 829,895.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed April 30, 1906. Serial No. 314,510.

To all whom it may concern:

Be it known that I, LOUIS MARTAIN SARTAIN, a citizen of the United States, residing at Coalmont, in the county of Grundy and State of Tennessee, have invented a new and useful Train-Pipe Coupler, of which the following is a specification.

This invention relates to devices of that class employed in coupling train-pipes between railway-cars, and has for its principal object to provide a coupler in which the parts will be automatically connected when the cars are moved together and automatically disconnected as the cars are separated, each of the coupling-sections being so constructed as to permit the necessary yielding when coupling at different heights or when the cars are on curves.

A further object of the invention is to provide a yieldably-mounted coupling, so arranged as to hold the parts in coupled position without frictional wear during the running of the train.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is an elevation, partly in section, of a train-pipe coupling constructed in accordance with the invention. Fig. 2 is a sectional plan view of the same. Fig. 3 is a transverse sectional view on the line 3-3 of Fig. 2. Fig. 4 is a detail perspective view of one of the coupling members, a part of the yieldable covering of the nozzle or male member being broken away.

Similar characters of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

To each of the cars, preferably at a point under the draw-head, is secured a bracket 10, the web of which has openings for the passage of securing-bolts 11. The bottom of the bracket is approximately cylindrical in form, and is provided with a circular opening for the reception of the circular shank 15 of the coupling member 16, and said shank is much

smaller in diameter than the opening in order to permit free yielding when the couplers are connected at different levels and to permit free play while the cars are traveling around curves. The cylindrical shank is provided with a pair of diametrically-opposed longitudinal grooves 17 for the reception of threaded studs 18, which maintain the shank in an approximately central position and at the same time limit its outward movement. The shank is provided with an enlarged head 19, between which and the bracket is arranged a helical compression-spring 20, tending to thrust the coupling member outward to the position shown in Figs. 1 and 2. The head 19 has a threaded connection with the cylindrical body portion 21 of the coupling member, and in this body portion there is formed an opening 22, having a tapered mouth to permit the ready introduction of the nozzle or male member 23 of an opposing coupling. The opening 22 is arranged at a point to one side of the longitudinal axis of the coupling, and on the opposite side of such axis is the nozzle or male member 23. This nozzle projects some distance beyond the body portion of the coupler and has a tapered end portion to facilitate its entrance into the opening 22, and the outer surface of the nozzle is threaded or roughened and receives the sleeve 25, that is formed of rubber or other yieldable material, which when introduced into the opening 22 will form a practically air-tight joint.

Arranged within the coupling member is a valve 27, that moves to closed position under the pressure of air and when the cars are uncoupled prevents the escape of air through the opening 22. The nozzle when entered in this opening pushes the valve to the open position, as shown in Fig. 2.

The rear end of the shank 15 is connected by a hose or flexible pipe 29 to the train-pipe A, a flexible connection being necessary in order to permit the free yielding of the coupling members as the cars move together. The construction is such that the couplings will be automatically engaged as the cars are moved together, and when so engaged the springs will hold the parts connected without any frictional play between the nozzles and the walls of the openings in which they are entered, so that the only wear which occurs is during the coupling and uncoupling operations. The train-pipe may, if necessary, be provided with the ordinary coupling-hose

connections x to permit coupling with cars which are not provided with the train-pipe coupling forming the subject of the present invention.

5 I claim—

1. In a train-pipe coupling, a bracket having a guiding-opening, a coupling member having a shank portion disposed within said guiding-opening, the shank having a pair of
10 longitudinal grooves, studs projecting inward from the bracket and entering said grooves, a spring tending to force the coupling member outward from the bracket, and means for connecting the shank to the train-
15 pipe.

2. In a train-pipe coupling, a hollow coupling member provided with an opening at one side of the center of its outer end, a nozzle,

and a yieldable covering for carried by and firmly secured to said nozzle.

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3. In a train-pipe coupling, a hollow coupling member having at its forward end a flared opening and provided with a projecting nozzle that opens within the coupling, and a pressure-closed valve arranged within
25 the coupling and adapted to close the passage through the nozzle and through said flared opening.

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

LOUIS MARTAIN SARTAIN.

Witnesses:

C. NOTE,

J. D. RUST.