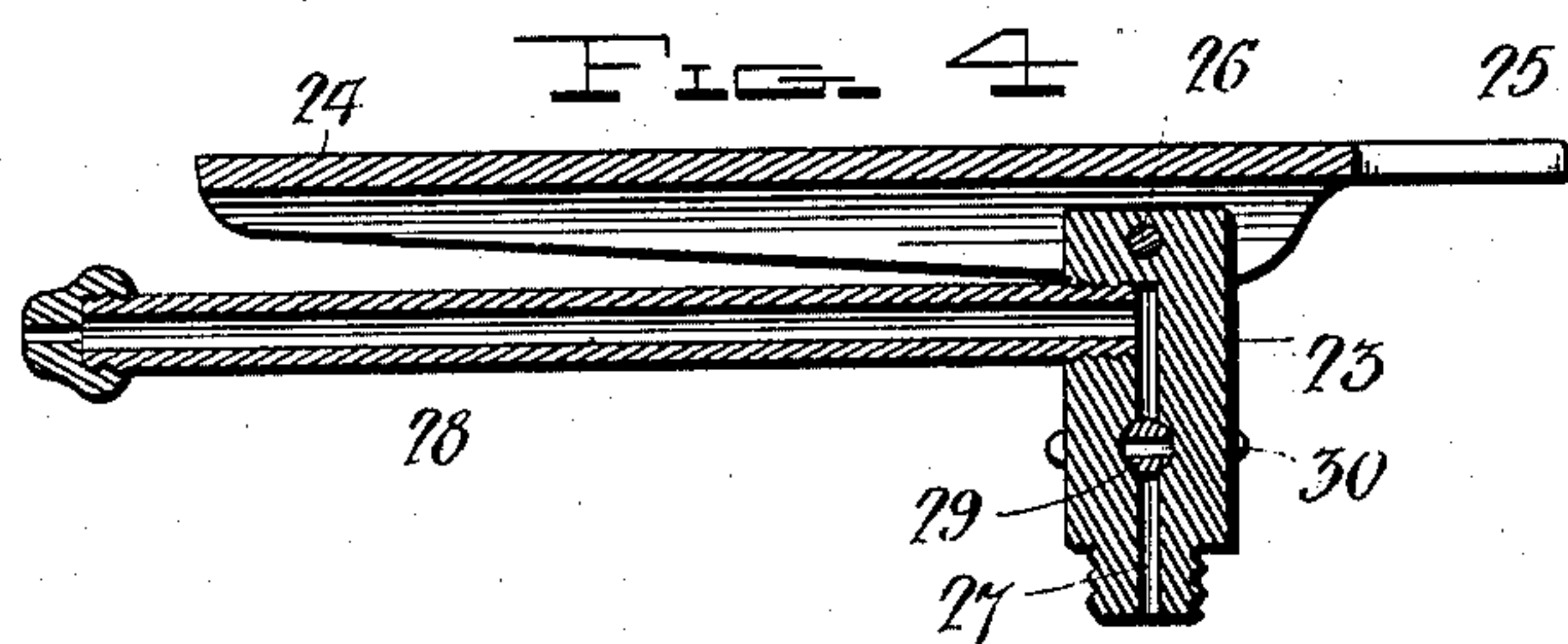
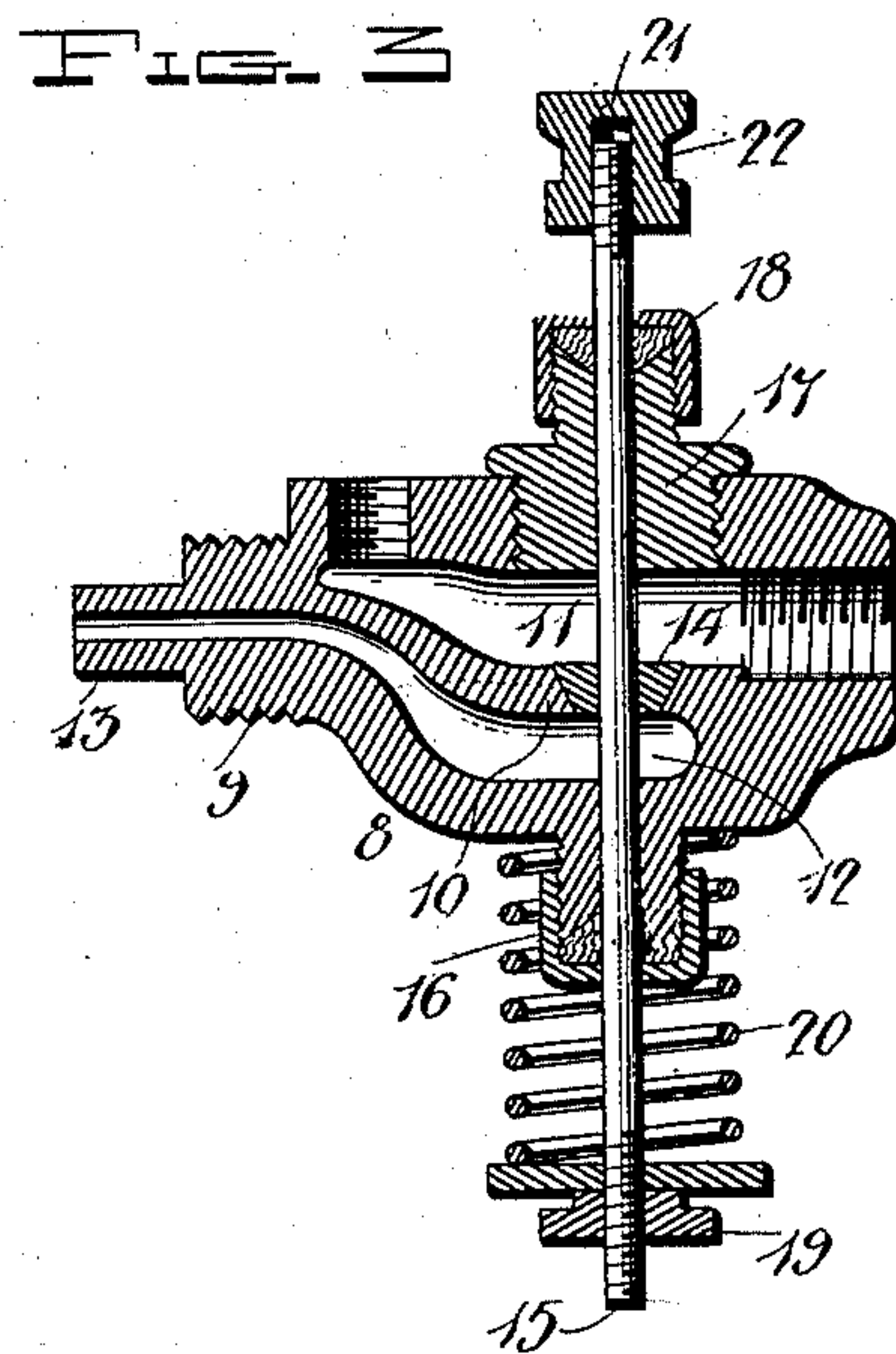
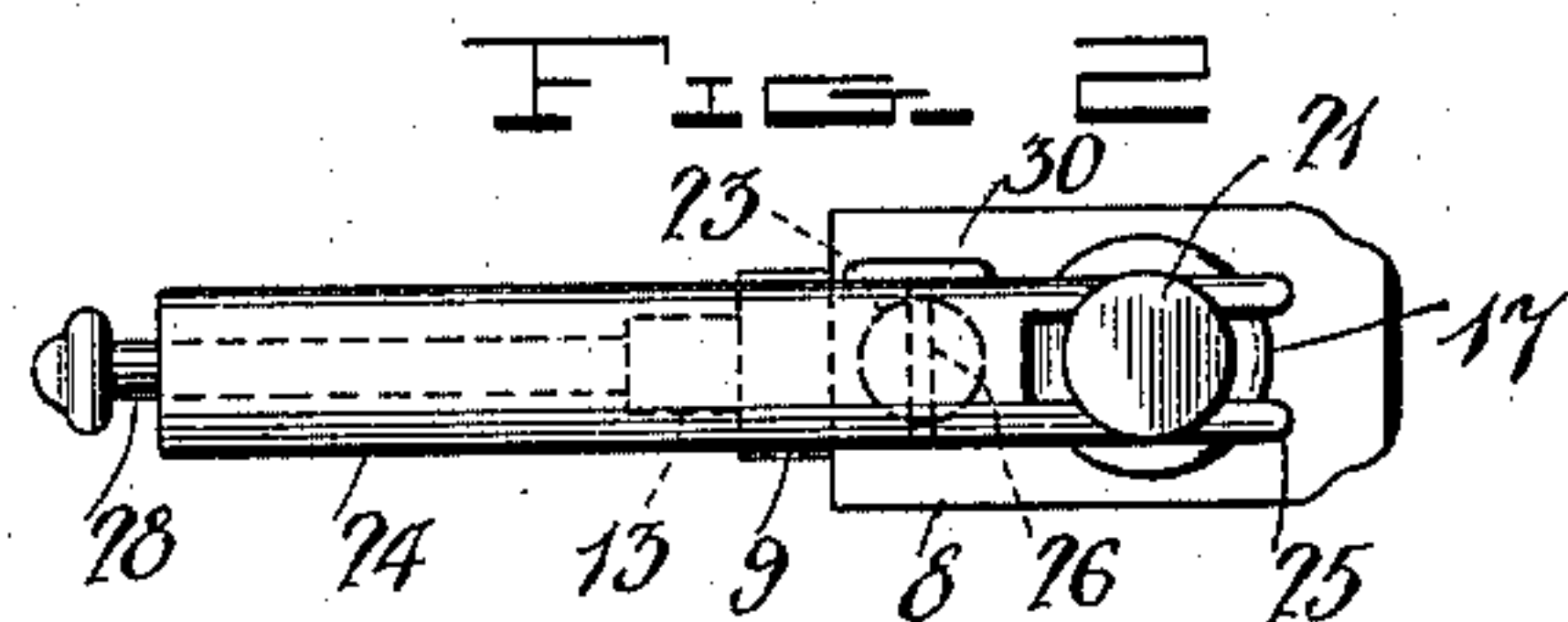
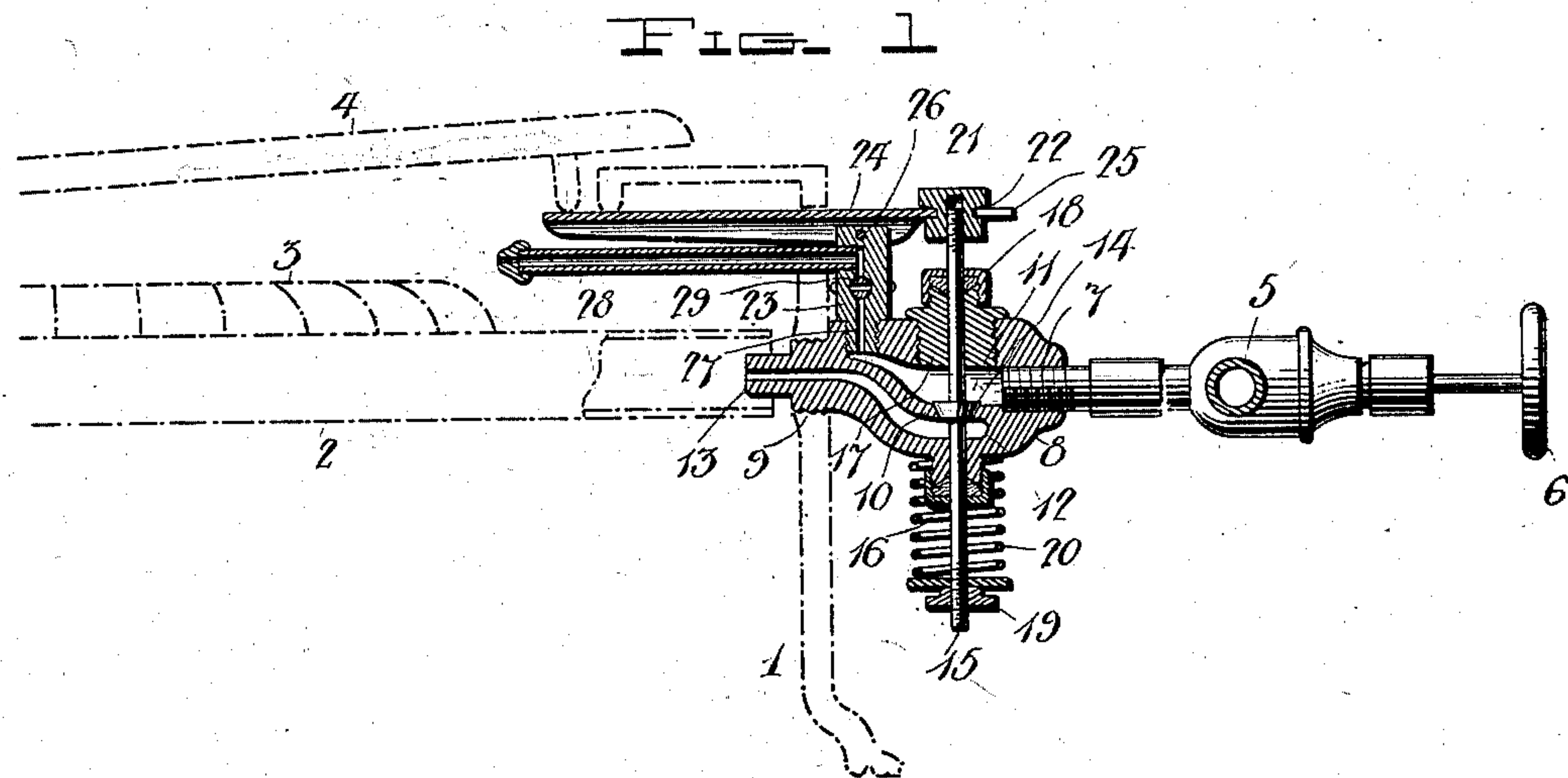


No. 752,749.

PATENTED FEB. 23, 1904.

L. H. BEAR.
ATTACHMENT FOR GAS STOVES.
APPLICATION FILED JULY 31, 1903.

NO MODEL.



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UNITED STATES PATENT OFFICE.

LEWIS H. BEAR, OF TERRE HAUTE, INDIANA.

ATTACHMENT FOR GAS-STOVES.

SPECIFICATION forming part of Letters Patent No. 752,749, dated February 23, 1904.

Application filed July 31, 1903. Serial No. 167,726. (No model.)

To all whom it may concern:

Be it known that I, LEWIS H. BEAR, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Attachments for Gas-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to gas stoves and heaters, and contemplates the provision of an improved appliance adapted for convenient attachment to existing stoves and heaters for automatically regulating the gas-supply to the burner and for maintaining a pilot-flame to ignite the gas at the latter upon the resumption of the supply.

The nature of the improvements will be readily comprehended, reference being had to the following detailed description and to the accompanying drawings, in which—

Figure 1 is a vertical sectional view of an attachment embodying my invention, shown as applied to a gas stove or heater. Fig. 2 is a plan view of the attachment. Fig. 3 is an enlarged vertical sectional view of the casing and valve. Fig. 4 is an enlarged sectional view showing the pilot-flame tube and valve-moving means.

Referring to the drawings by numerals, 1 denotes the frame of a gas stove or heater, and 2 is the air-and-gas-mixing tube leading to the burner 3. The spider is shown at 4. In the gas-supply pipe 5 is a needle-valve controlled by a handle 6, and also a threaded branch pipe 7. These parts may be of the usual construction.

Referring now to my improved attachment, 8 designates a casing supported from the frame 1, said casing preferably having a threaded portion 9 entering the threaded opening usually provided in the frame in line with the mixing-tube 2. The interior of the casing is divided by a horizontal partition 10 into an upper chamber 11, to which is connected the supply-pipe branch 7, and into a lower chamber 12, the latter communicating with the aperture of a reduced extension 13, entering the mixing-tube. In the partition is an opening

affording communication between the chambers, and at said opening is a valve 14, the stem 15 of which extends through and beyond the top and bottom of the casing. At the bottom opening for the valve-stem is a stuffing-box 16, and the upper end of the stem is movable in an apertured plug 17 and a stuffing-box 18. The lower end of the stem is threaded and receives a nut 19, and said nut and a washer serve to confine a spring 20, coiled around the stem and interposed between said washer and casing, the spring operating to seat the valve. The tension of the spring is regulated by the nut 19. The upper end of the stem is likewise threaded, and screwed thereon is a collar 21, having an annular groove 22.

In the casing-top is a threaded opening, into which is screwed the lower end of a coupling 23.

24 is a lever, preferably of inverted-U form in cross-section and having a bifurcated end 25 engaging the groove 22 of the collar 21. The lever is intermediately pivoted to the upper end of the coupling 23 by a pin 26 passed through the depending portions of flanges of the lever and through said coupling. The lever extends at its other end through an opening in the frame and beyond the opening in the stove or heater top for the spider 4. In the coupling is a vertical aperture 27, communicating with the upper chamber 11 and also with a lateral threaded opening in said coupling and in which is screwed the inner end of a pilot-flame tube 28. The outer end of said tube 28 is in close proximity to the burner 3. In the aperture 27 of the coupling is a hand-controlled valve 29, having a handle 30.

In operation the lever is adjusted by turning the sleeve 21 to bring its outer or free end in position to support the spider above the top of the stove or heater. The valve 29 is adjusted to admit a supply of gas to the tube 28 sufficient to maintain a small pilot-flame at the nipple whereby to effect instantaneous ignition at the burner 3. The valve 14 is normally seated by the action of the spring, the tension of which is sufficient to overcome the weight of the spider resting on the lever 24, and the supply of gas to the burner is cut off. When a utensil or the like is placed on the

spider, the added weight causes the depression of the spider and outer end of the lever and the elevation of the opposite end of the latter and with it the valve-stem and valve. The
5 valve being raised from its seat, the gas flows by the chamber 12 and extension 13 through the mixing-tube to the burner, at which latter it is ignited by the pilot-flame. While the utensil occupies the spider the flame at the
10 burner is maintained; but the instant the utensil is removed the spring acts to retract the valve to its seat and cut off the gas-supply, the other parts also returning to normal position. The burner is thus in operation
15 only when heat therefrom is desired, and this results in a very considerable saving, which is not offset by the maintenance of the pilot-flame, only a very small quantity of gas being necessary for this purpose.

20 It will be noted that in addition to the simplicity of construction of the attachment it is readily fitted to existing stoves without necessity of modification.

I claim as my invention—

25 1. In combination with a burner, a gas-sup-

ply passage and a support for a utensil or the like, of a valve in said passage, a stem below the valve connected with a spring for normally seating the valve, a device for adjusting the tension of the spring, a stem above the valve
30 having an adjustable collar, and a pivoted lever connected at one end with said collar and serving at its other end to normally elevate the support.

2. In combination a casing divided by a par-
35 titution into two chambers the upper one of which is connected with a gas-supply and the other with a burner, a controllable pilot-flame tube connected with the upper chamber, a spring-retracted valve at an opening in
40 said partition, and a pivoted lever connected with the valve and arranged to be moved to unseat the latter by the applied weight of a utensil or the like.

In testimony whereof I affix my signature in
45 presence of two witnesses.

LEWIS H. BEAR.

Witnesses:

JOHN H. CHEEK,
EMMA WHEATFILL.