

No. 646,902.

Patented Apr. 3, 1900.

W. A. HAEBERLE.

DEVICE FOR PREVENTING REREGISTRATION OF GAS BY METERS.

(Application filed Apr. 17, 1899.)

(No Model.)

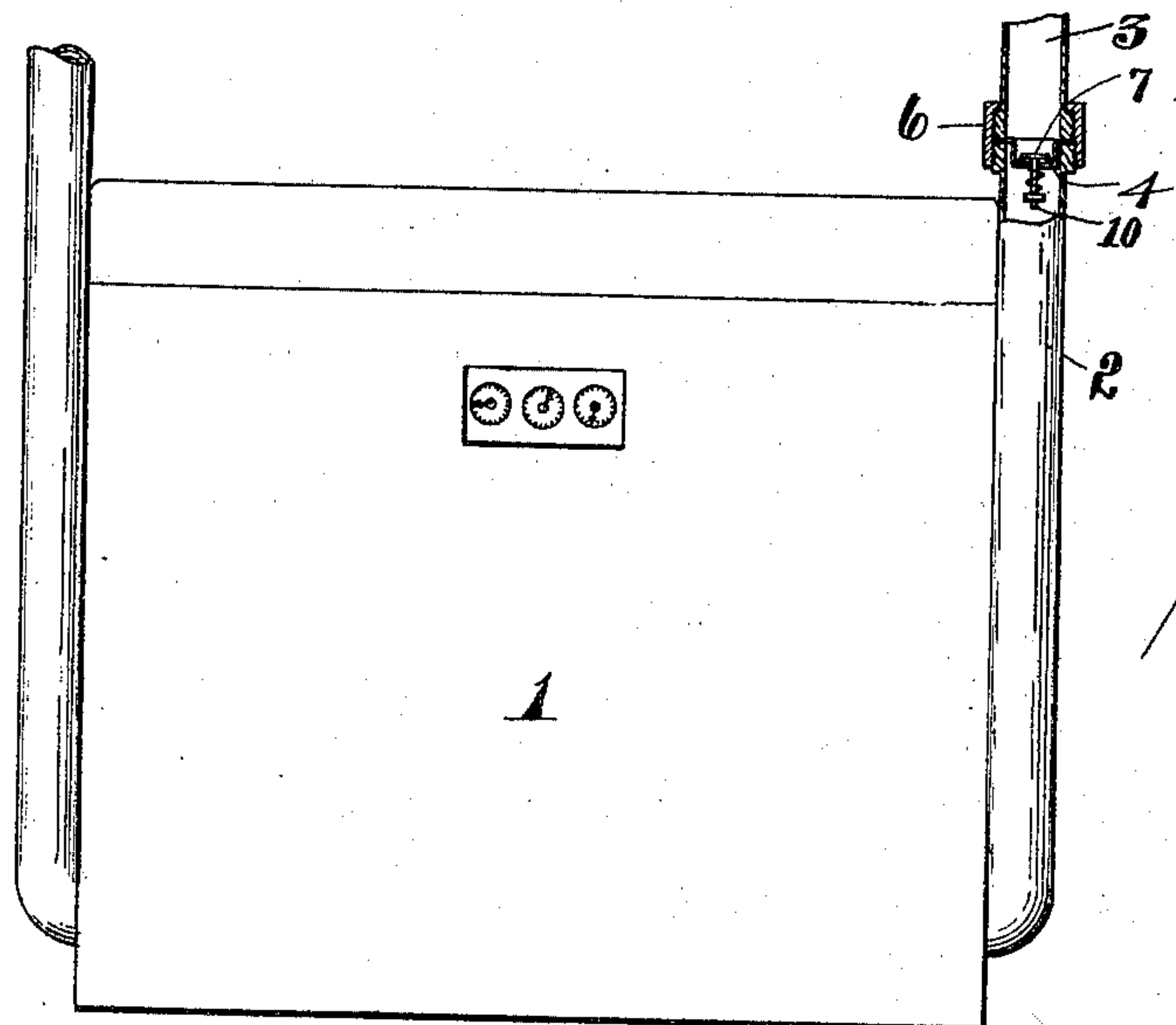


Fig. 1

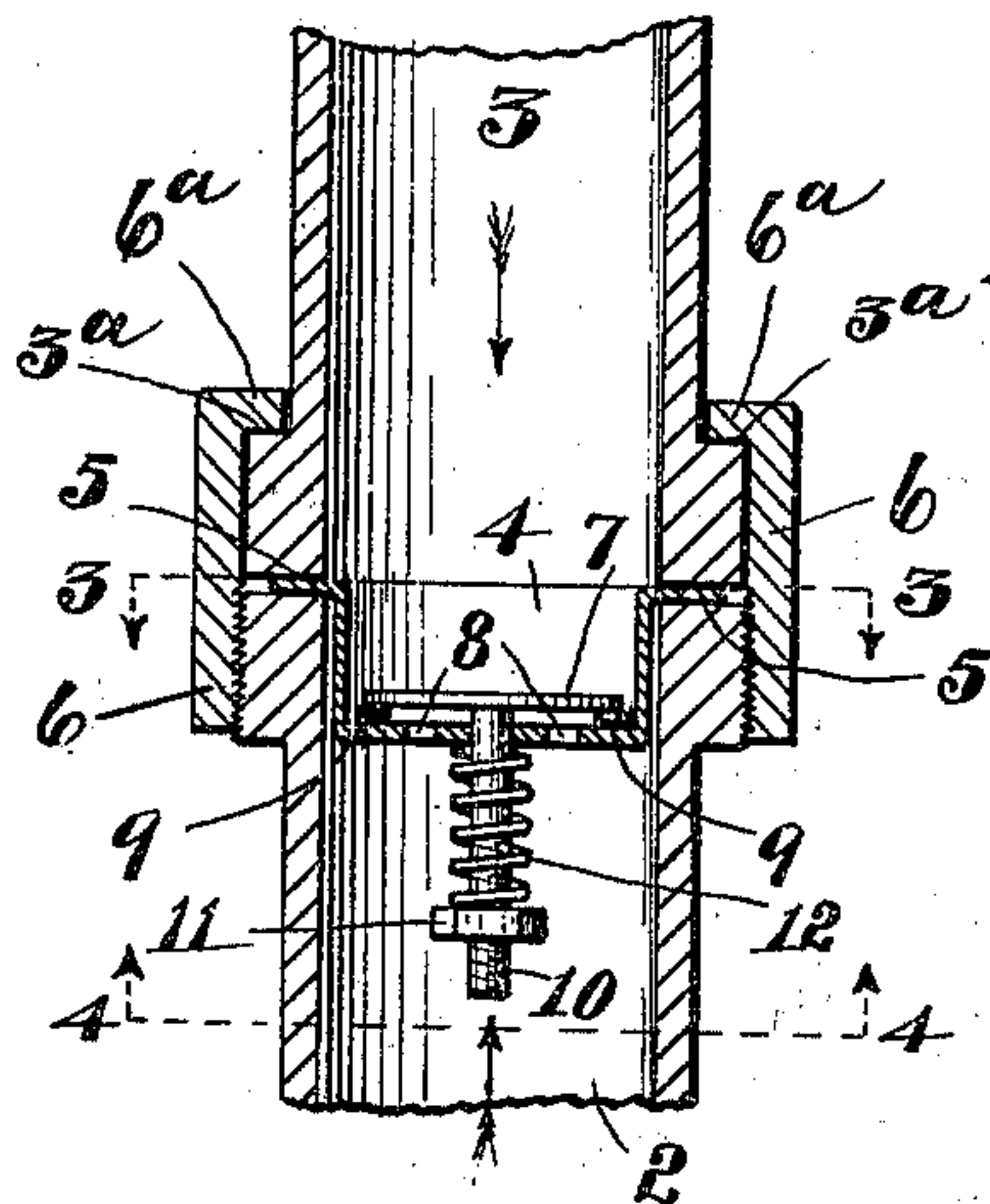


Fig. 2

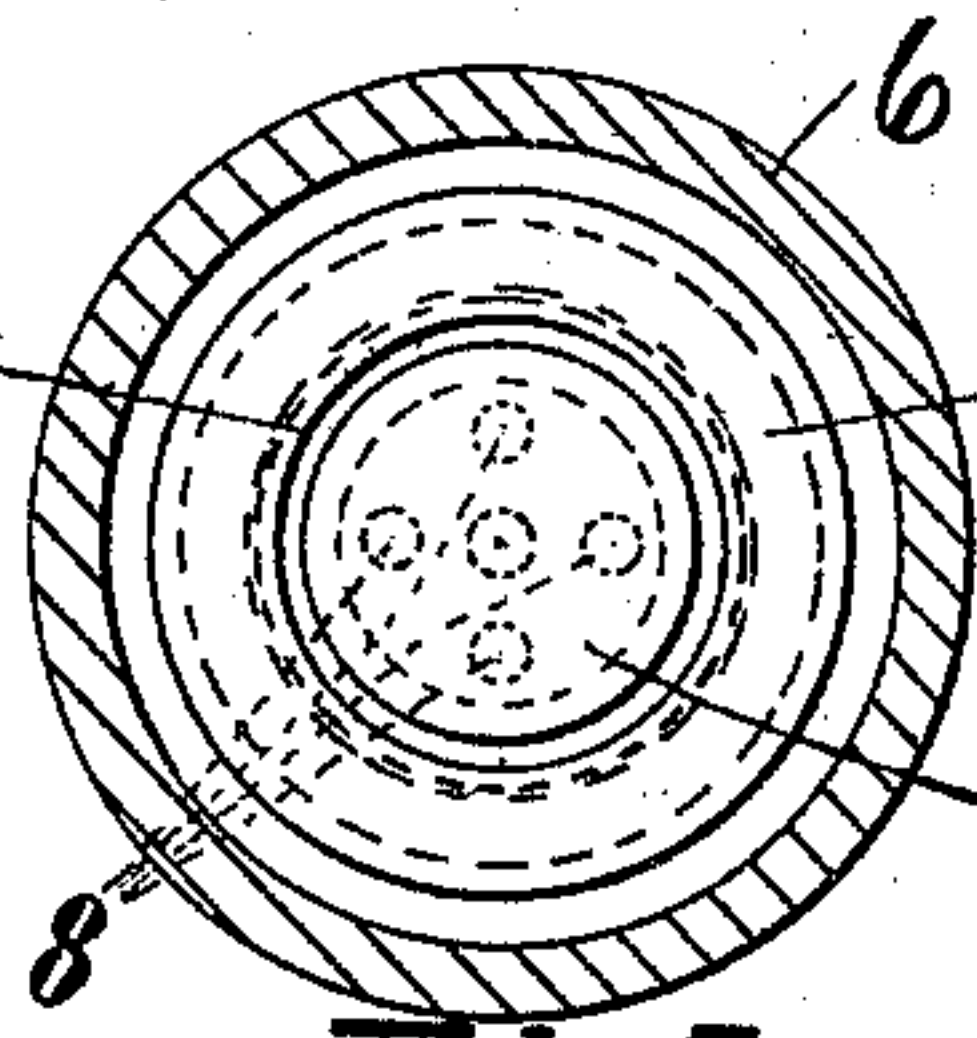


Fig. 3

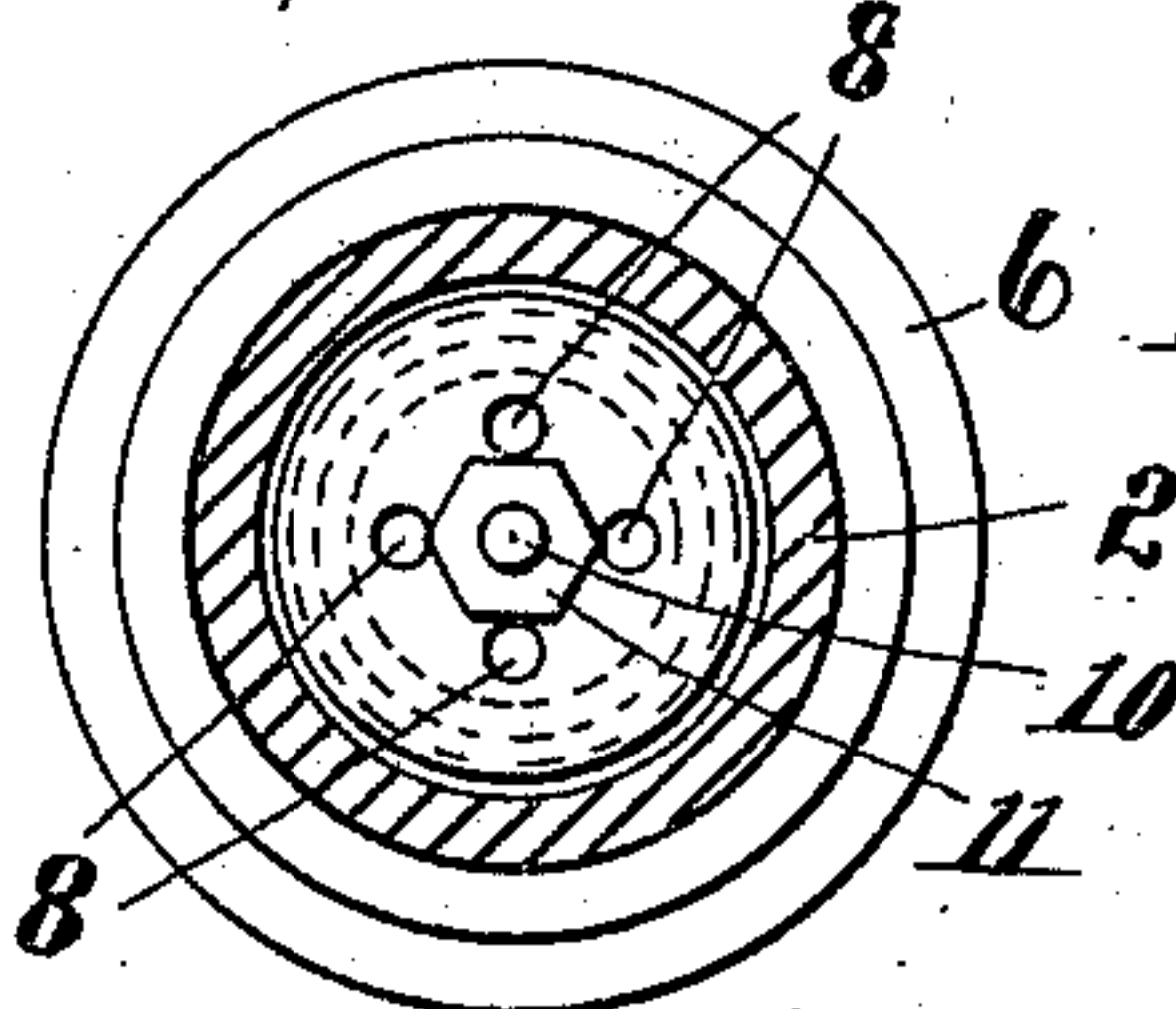


Fig. 4

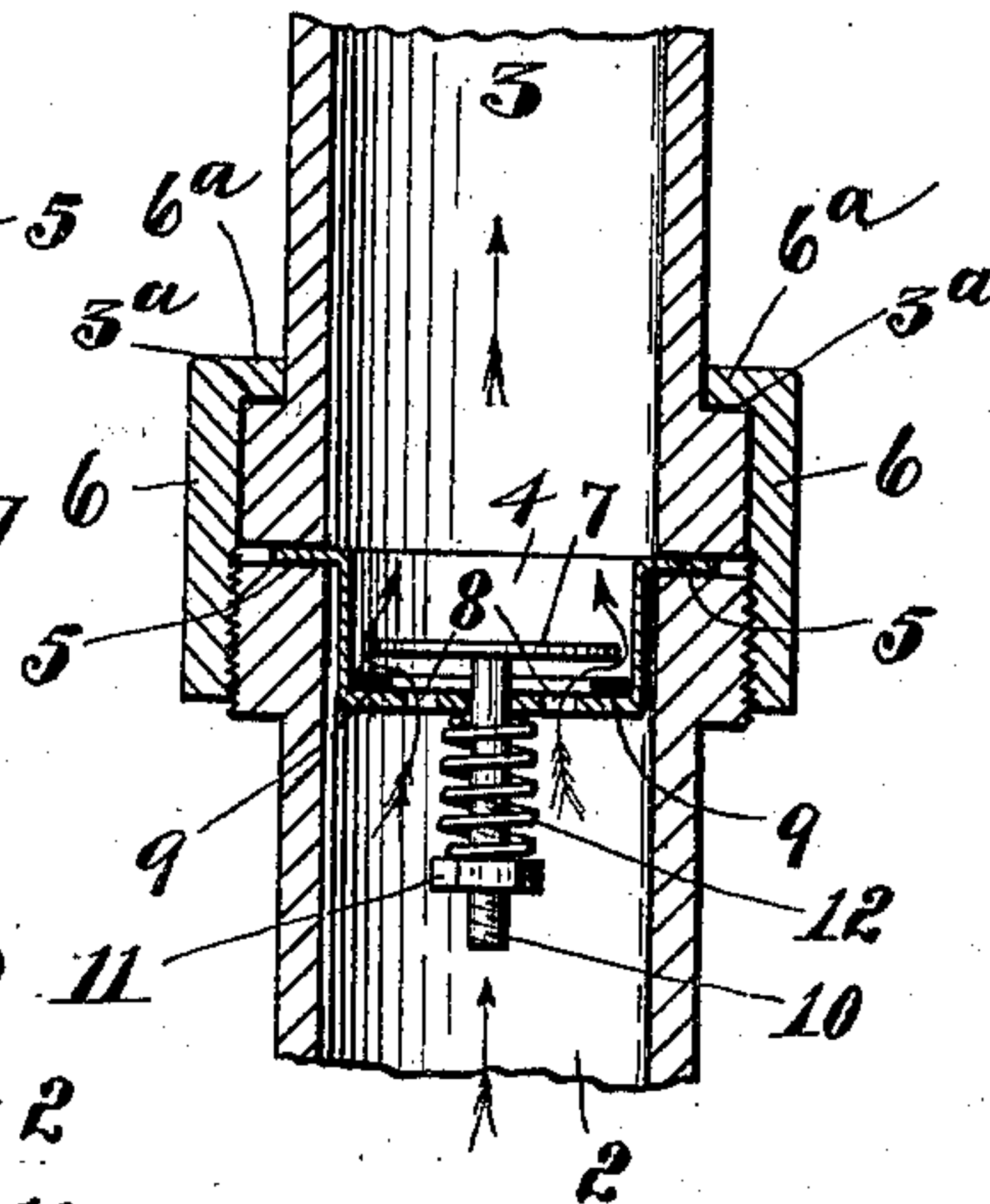


Fig. 5

WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM A. HAEBERLE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO GEORGE F. HAEBERLE, OF ALTON, ILLINOIS.

DEVICE FOR PREVENTING REREGISTRATION OF GAS BY METERS.

SPECIFICATION forming part of Letters Patent No. 646,902, dated April 3, 1900.

Application filed April 17, 1899. Serial No. 713,361. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. HAEBERLE, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Devices for Preventing Reregistration of Gas by Meters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a front elevation of a gas-meter and its supply and outlet pipes and a pipe leading to the burners in section, showing my device connected thereto. Fig. 2 is a vertical section, enlarged, of the said outlet and burner-supply pipes, showing my device applied thereto, the valve being in the closed position. Fig. 3 is a full horizontal section on line 3 3, Fig. 3. Fig. 4 is a full horizontal section on line 4 4, Fig. 2. Fig. 5 is a view similar to Fig. 2, but showing the valve open.

It is well known that the pressure put upon illuminating-gas at the source from which the gas is supplied varies at different times—that is to say, it is made greater at night and diminished in the daytime; and consequently when the change is made from the higher to the lower pressure a part of the gas which has passed through and been registered by the usual meter and which then occupies the burner-supply pipes flows back through the meter, (the burners being shut off,) and then when the pressure is put on the same gas passes again through the meter and is registered a second time.

The nature and object of my invention are to provide a simple device that will effectually prevent such double registry under the circumstances recited.

The invention consists of a spring-controlled valve that is suitably placed in the outlet-pipe of the meter and is adapted to allow the gas to readily flow through the said pipes having the burners, but to automatically prevent the return to the meter of any gas within the latter pipe.

The precise nature of the invention will clearly appear from the following description, reference being had to the accompanying drawings, in which—

1 is the meter of usual construction, 2 the

exit-pipe leading therefrom, and 3 the pipe through which the gas passes on to the burners in the building.

In carrying out my invention I employ a cup-shaped part adapted to be entered into the end of the pipe 2 and having a peripheral flange 5, adapted to rest upon the end of said pipe. The end of the house-supply pipe 3 is placed against the top of said flange. A tight joint is made between the ends of said pipes and intervening flange by means of a coupler 6, whose upper end is provided with a flange 6<sup>a</sup>, which rests upon the top of a shoulder 3<sup>a</sup> of the pipe 3. The lower end of the said coupling is screwed onto the upper end of the pipe 2, as seen in Figs. 2 and 5.

7 is a disk valve within the cup-shaped piece 4, the bottom of which latter is provided with holes or slots 8. The outer edge of the disk valve 7 rests upon an annulus 9, of soft india-rubber or the like, that is fitted within and rests upon the bottom of the cup-piece 4. Said disk has a vertical stem 10, that passes through a guide-aperture in the bottom of the cup and has a head on its projecting end to limit the upward movement of the disk. In the present instance the head is a screw-nut 11 upon the threaded end of the stem, which nut bears against the lower end of a spring 12, whose upper end bears against the under side of the cup 4.

The purpose of the spring is to tend to maintain the disk 7 in contact with the annulus 9, and the tension of the spring may be adjusted by turning the nut 11.

The manner of operation of the described device is as follows: The gas under pressure flowing from the meter into the pipe 2 elevates the disk 7, and the gas passes through the holes 8 in the bottom of the cup 4 and flows on by way of the house-supply pipe 3 to the burners, all as shown and as indicated by the arrows in Fig. 5. When, however, the flow of the gas is stopped by being turned off at the burners, the disk 7 is forced down and seating upon the annulus prevents the reflow of the gas within the pipe 3 to the meter.

In order to adjust the tension of the spring 12 as may be necessary or according to the number of burners that are liable to be used, the coupling 6 is first unscrewed and the pipe



3 separated from the meter-pipe 2. The cup and adjuncts are then removed and the nut 11 turned to increase or diminish the tension of the spring, as may be required, and the  
5 cup, &c., is then turned to its position within the pipe 2.

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

10 1. In a device for the purpose recited, the combination of the meter exit-pipe, the house-supply pipe, the detachable cup, having the perforated bottom, the annulus of india-rubber or similar yielding material, the disk with-  
15 in said cup having the guide-stem extending through the bottom of the cup, the adjusting-nut upon the free end of said stem, and the spring on said stem adapted to bear against the under side of the bottom of the cup and  
20 against said nut, substantially as and for the purpose specified.

2. In a device for the purpose recited, the

combination of the meter exit-pipe, the house-supply pipe, the cup having the peripheral flange and the perforated bottom, the disk 25 having the stem extending through said bottom, the annulus of india-rubber or other suitable yielding material, interposed between said disk and the bottom of the cup, the nut on the free end of said stem and the spring upon 30 said stem, one end of which is adapted to bear against said nut, and the other end thereof against the under side of the bottom of said cup, together with the coupling for drawing together said pipes against the interposed pe- 35 ripheral flange of said cup, substantially as and for the purpose specified.

In testimony whereof I have hereunto affixed my signature this 29th day of March, A. D. 1899.

WILLIAM A. HAEBERLE.

Witnesses:

WALTER C. PUSEY,  
C. E. PARKER.