

No. 804,509.

PATENTED NOV. 14, 1905.

S. H. URY.
AUTOMATIC GAS BURNER ATTACHMENT.
APPLICATION FILED MAR. 6, 1905.

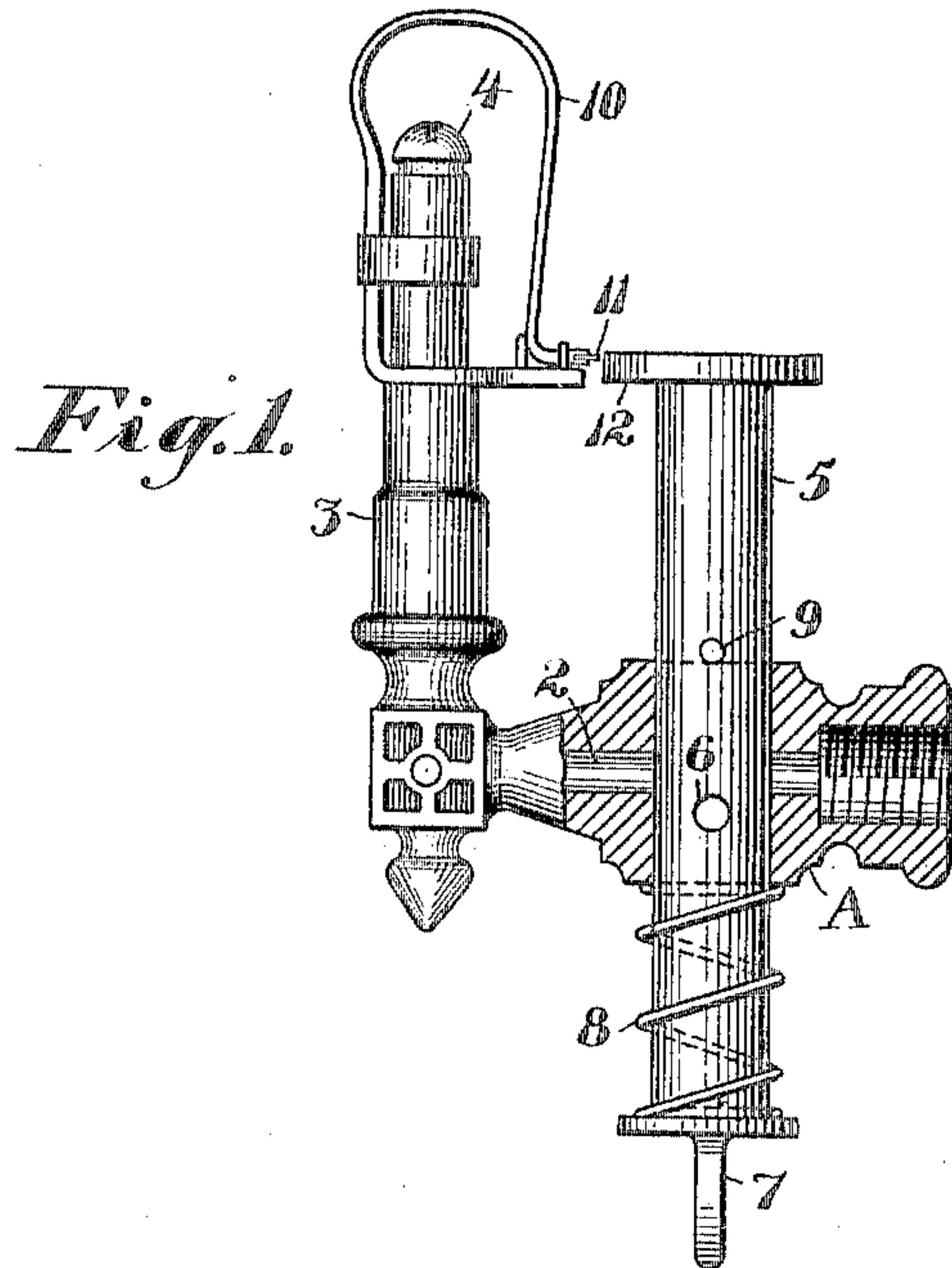
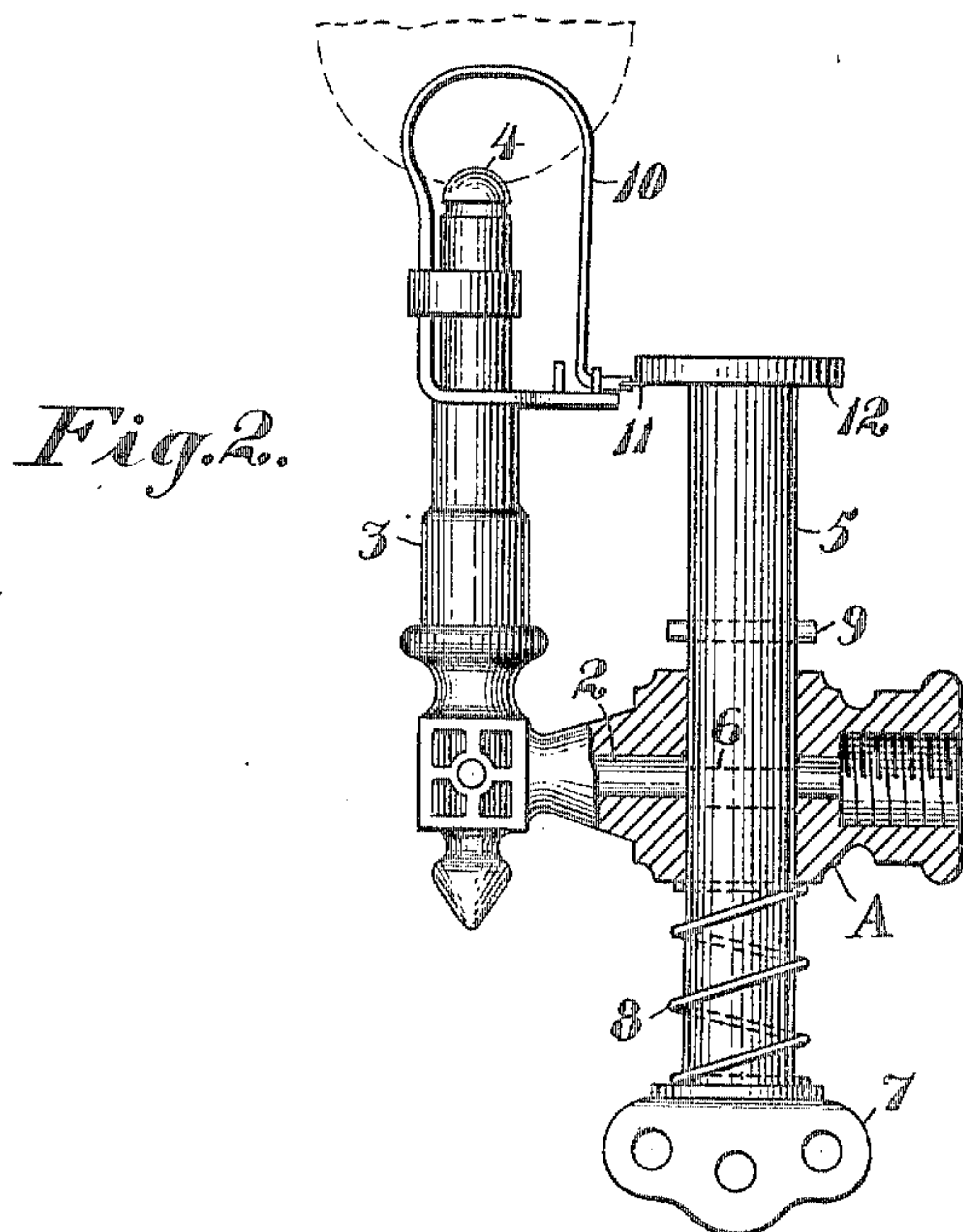
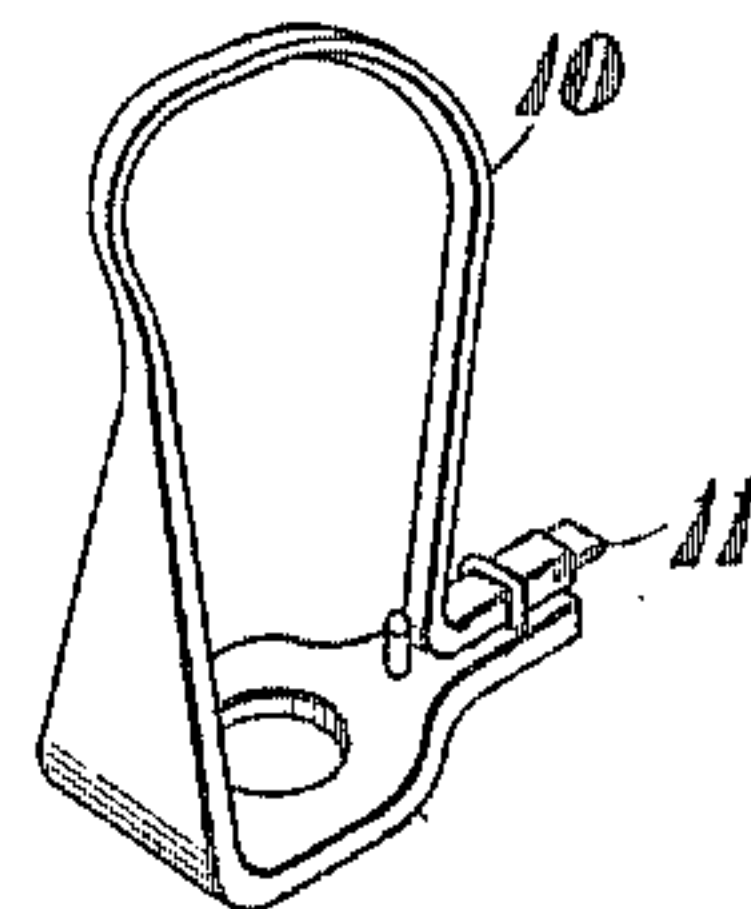


Fig. 3.



Witnesses:-

F. C. Fiedner
J. H. Ansee

Inventor,

Solomon H. Ury
By Geo. H. Strong atty

UNITED STATES PATENT OFFICE.

SOLOMON H. URY, OF SAN LEANDRO, CALIFORNIA.

AUTOMATIC GAS-BURNER ATTACHMENT.

No. 804,509.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed March 6, 1905. Serial No. 248,521.

To all whom it may concern:

Be it known that I, SOLOMON H. URY, a citizen of the United States, residing at San Leandro, in the county of Alameda and State of California, have invented new and useful Improvements in Automatic Gas-Burner Attachments, of which the following is a specification.

My invention relates to an attachment for gas-burners, by which the extinguishing of the gas acts to shut off the supply.

It consists in the combination of mechanism and details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 shows my gas-burner attachment partly in section and closed. Fig. 2 shows the gas-passage open. Fig. 3 is a detail of the spring member.

It is the object of my invention to provide a device by which the flow of gas will be cut off whenever the flame is extinguished and danger to the lives or health of sleeping persons or others who might be exposed to a flow of unburned gas will be prevented.

As shown in the drawings, A is a connection by which gas is admitted and allowed to pass through a small passage 2 into the burner 3 to be discharged and burned through the burner-tip, as at 4.

5 is a cylindrical plug freely slidable through the part A and having a hole made in it, as at 6, which hole is preferably made parallel with the handle 7, so that when the handle is turned to shut off the gas this hole will stand transversely of the passage 2 and when the cock 7 is turned to the passage which will admit gas when the other conditions are right the hole 6 will be parallel with the passage 2.

8 is a spring by which the cylindrical plug 5 is drawn down until a pin or equivalent stop 9 contacts with the upper part of the chamber A. In this position the hole 6 through the barrel 5 will be below the passage 2, and whether it be turned transversely to or parallel with the passage 2 there will be no communication and the plug 5 will cut off any flow of gas to the burner.

Fixed with relation to the burner-tip 4 is a spring 10, so located that whenever the gas is lighted the flame will heat the spring 10. One end of spring 10 is fixed to the burner 3 or with relation to it and the other end is free to be moved. I prefer to fit into the end of this portion a thin steel or other strip 11,

which projects horizontally outward, as shown.

Upon the top of the part 5 is a disk, as at 12. I prefer to make this projection in the form of a disk, so that it will extend outwardly from the part 5 a substantially equal distance whatever position the part 5 may be turned to.

The operation of the device will then be as follows: When the gas is to be lighted, the cock is turned until the hole 6 in the part 5 stands parallel with the passage 2, and by pushing up on the cock the spring 8 will be compressed and the hole 6 will be brought into line with the passage 2, so that gas can flow. The gas is then lighted at the burner, and in a few seconds the spring will be expanded so that the tip 11 will be projected beneath the disk 12 and will thus prevent the cock from dropping as long as the gas remains lighted. Whenever by any means, either purposely or by accident, the gas is extinguished, the spring 10 will immediately cool and retract the tip 11 until it releases the disk or projection 12, and thus allows the spring 8 to act and pull the part 5 down until the hole 6 is no longer in line with the passage 2. The gas will thus be cut off. It will be seen that no matter how the cock may be turned no gas will flow until the key is raised and held with the hole 6 in line with the passage 2. Whenever the gas is extinguished, whether by turning the key or by accident, the contraction of the spring 10 will release the key and allow it to drop to its normal position with the hole 6 out of line with the passage 2. This will take place whether by the accidental extinguishing of the gas in one room or burner or by turning it off entirely at the meter. After turning the key and lighting the gas it takes only one or two seconds for the expanding spring to interlock and hold the key up so that gas can flow, and whenever the flame is extinguished it takes a very short time for the contraction to release the key and shut off the flow. When lighted, the flame can be raised or lowered by turning the key in any usual or ordinary manner.

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

1. The combination in a gas-cock, of a longitudinally-slidable key having a hole there-through, a spring by which said key is retracted and said hole is normally retained out

of line with the passage which supplies the burner, a projection upon the key and an arm expansible into the range of action of the slidable key by heat said arm adapted to engage said projection and retain the key in position to deliver gas to the burner while the latter is lighted.

2. A gas-burner comprising a burner-tip, a supply-passage therefor, a controlling-key slidable longitudinally and in a plane transverse of said passage, said key having a hole therethrough which is normally out of line with the supply-passage, a disk or projection upon the key and an expansible part located in the path of the flame and movable into the range of action of the key and adapted to engage the projection and hold the key open while the burner is lighted.

3. In a gas-burner, a slidable key or plug with a hole transversely through it, a spring by which the key is moved so that the hole is normally out of line with the supply-passage, an expansible arm in the path of the flame, a

projection carried by the key with which the expansible part engages to maintain a passage for the gas while the flame continues, and from which it is disconnected and the passage closed when the flame is extinguished.

4. A safety gas-burner comprising a burner and member thereon expansible by heat, a normally spring-retracted gas-controlling cock mounted to slide in a direction parallel with its axis, and a trigger mechanism between the cock and the expansible member whereby the cock is maintained in open position against the pressure of its returning-spring as long as the gas burns and is released and automatically returned to normal closed position when the gas is extinguished.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

SOLOMON H. URY.

Witnesses:

S. H. NOURSE,

JESSIE C. BRODIE.