

No. 643,617.

Patented Feb. 20, 1900.

C. D. ANDERSON.
SAFETY GAS COCK.

(Application filed June 15, 1899.)

(No Model.)

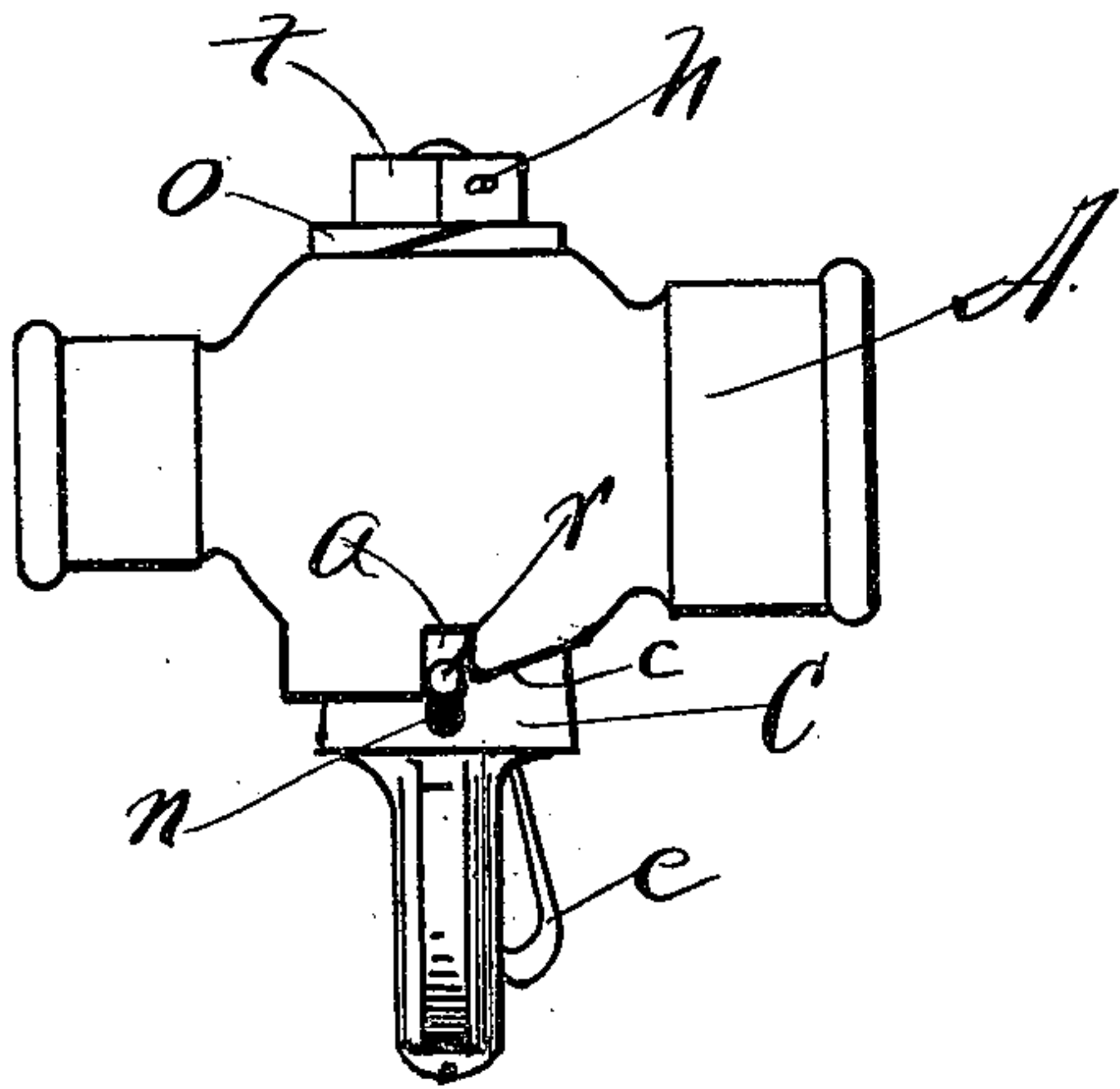


Fig. 1.

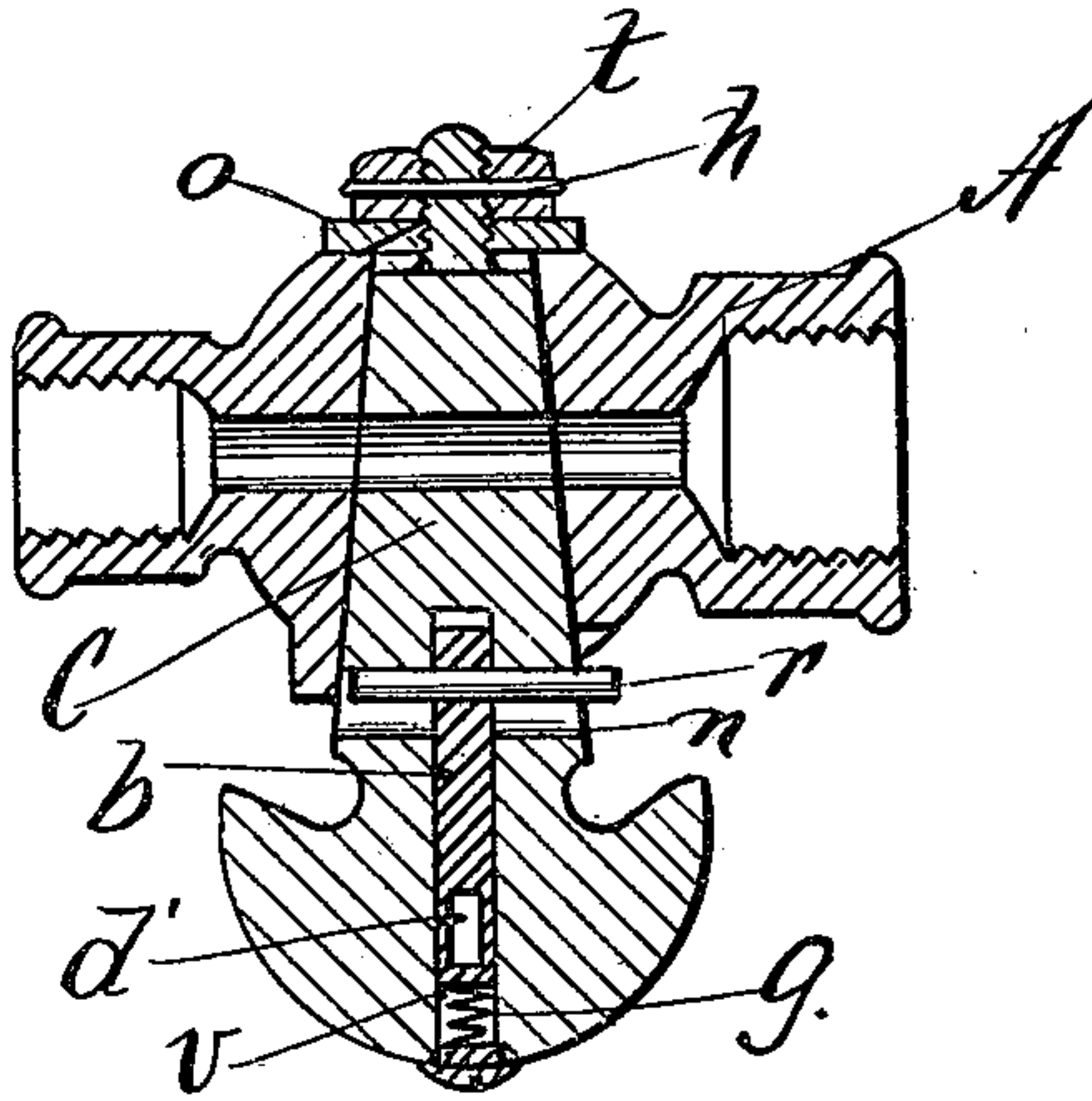


Fig. 2.

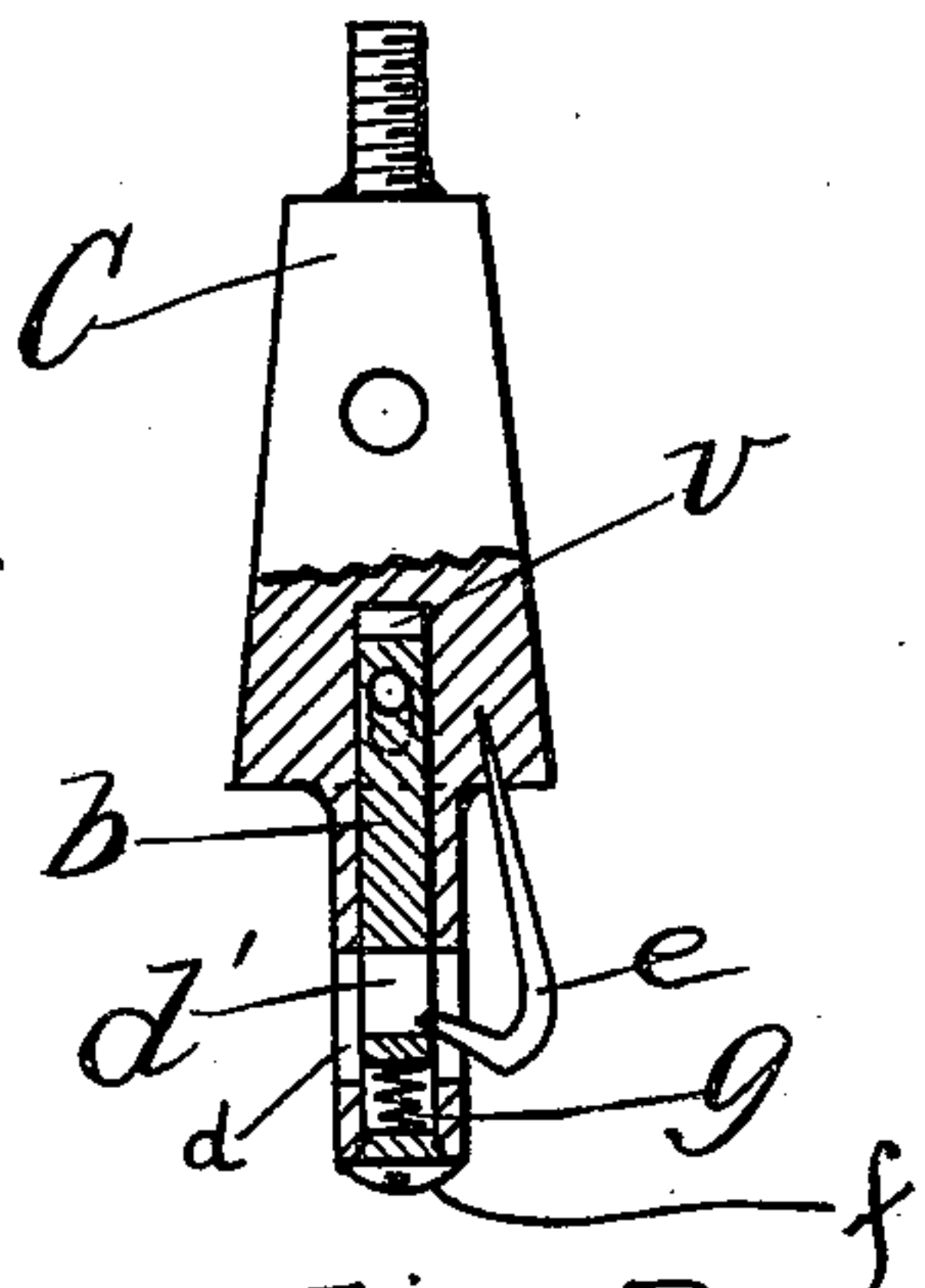


Fig. 3.

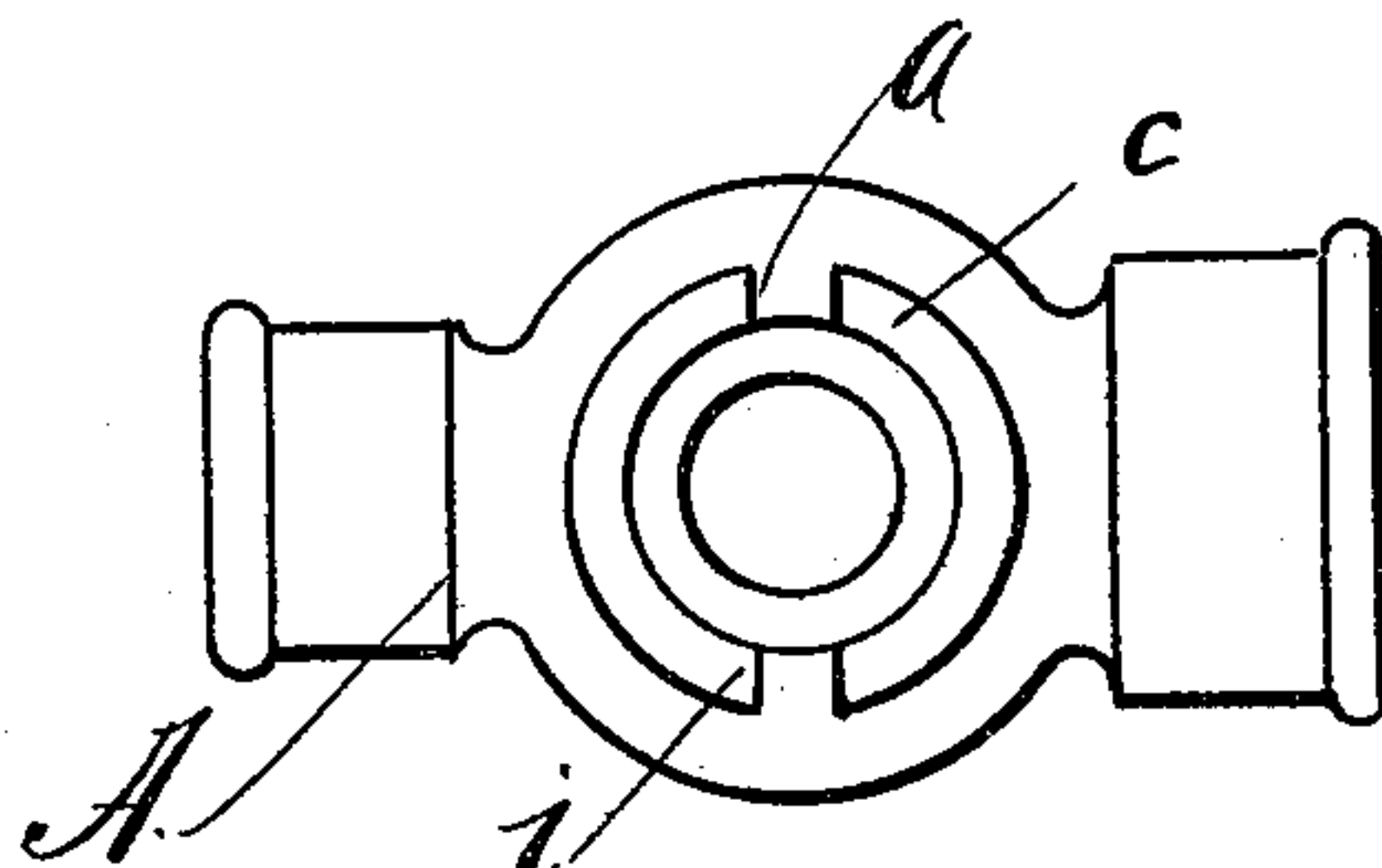


Fig. 4.

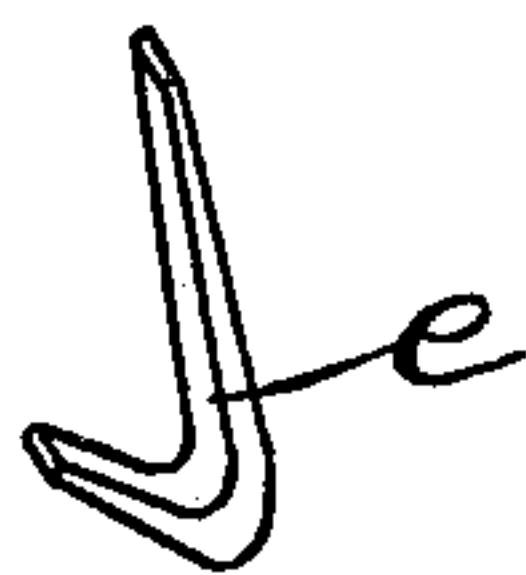


Fig. 5.

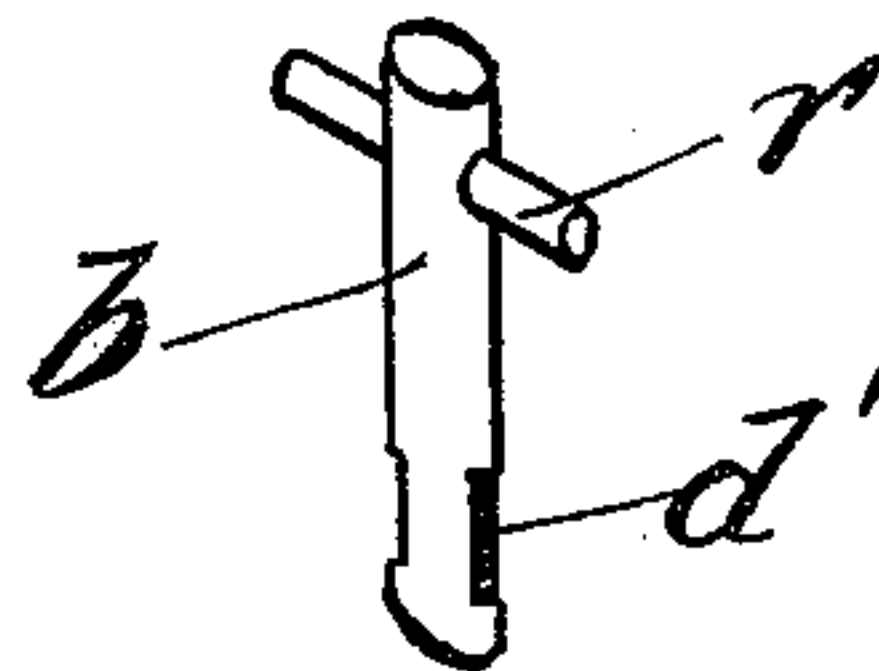


Fig. 6.

Witnesses.

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SAFETY GAS-COCK.

SPECIFICATION forming part of Letters Patent No. 643,617, dated February 20, 1900.

Application filed June 15, 1899. Serial No. 720,640. (No model.)

To all whom it may concern:

Be it known that I, CHARLES D. ANDERSON, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Safety Gas-Cocks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention consists in making a gas-cock with an automatic stop that shall prevent it from being accidentally opened after being closed or unconsciously by the hand that closed it to avoid an escape of gas. It is fully explained and illustrated in this specification and the accompanying drawings.

Figure 1 shows a side elevation of the gas-cock. Fig. 2 is a vertical section taken lengthwise through the cock. Fig. 3 shows the plug of the cock separately. Fig. 4 represents the shell of the cock without the plug, showing the position of the stop-notches in the shell. Fig. 5 represents the operating-spring. Fig. 6 is the sliding pin and cross-pin that hold the plug from turning accidentally.

The construction of the cock is as follows:
The shell A is made in the usual form, and the plug C is fitted to turn in it, and the shell has two stop-notches *a a* made on opposite sides of the edge of the opening in the shell where the plug C goes, and one side between the notches is cut away to form a double incline *c*. A vertical hole *v* is made in the plug C from the handle end in about half-way through the plug, and a horizontal oval hole *n* is made through the plug in a position to correspond with the notches *a a* in the shell when the plug C is in its place in the cock. A pin *b* is fitted to slide freely in the hole *v*, and a pin *r* is held fast in the pin *b* near its upper end, so as to occupy the oval hole *n* and move up and down in it. A mortise *d* is made through the side of the handle of the plug C into the hole *v*, and a corresponding one *d'* through the pin *b*. A spring *e* is made fast at its upper end in the plug C, and its lower end is bent at an angle to enter the mortise *d* and *d'* in the shell and pin and inclined upward at its end, so that when the spring *e* is pressed in the bent end will push the pin *b* down and the pin *r* out of the notch it may be in. A small spiral spring *g* is

placed at the end of the pin *b* in the hole *n* and held by a short screw *f* to keep the pin *b* up when not drawn down by the spring *e*. The plug C has a thread made on its upper end, and a nut *t* is fitted to screw on it, and a spring-washer *o* is placed between the nut and the shell A. A pin *h* is put through a hole in the nut *t* and the part of the plug in it to keep the nut from becoming loose.

The operation is as follows: When the cock is all assembled, as in Fig. 1, one end of the pin *r* will lie in one of the notches *a a*, and when the gas is to be turned on the spring *e* is pressed down, which pushes the pin *b* down and moves the pin *r* out of the notch *a* that it is in, and the plug C will be free to turn on the gas, when by releasing the spring by taking the fingers off of the plug the pins *b* and *r* will rise between the inclines at *c*. When the gas is to be shut off, the plug C is turned, carrying the pin *r* up one of the inclines *c* to one of the notches *a*, into which the pin *r* will be raised by the spring *f* and prevent the plug from being turned back without depressing the spring *e*, which is not liable to be moved accidentally.

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

1. In a gas-cock the combination with a plug, and a shell having two notches in the edge of the opening the plug enters, a vertical pin fitted to slide easily in a hole in the center of the plug, a cross-pin held in the upper end of the vertical pin, with means for moving said pins up and down, substantially as described.

2. In a gas-cock the combination with a plug and a shell having two notches in the edge of the opening the plug enters a vertical pin fitted to slide easily in a hole in the center of the plug, a cross-pin held in the upper end of the vertical pin, a vertical spring attached at its upper end to the plug and having its lower part bent at an angle to enter mortises in the plug and vertical pin to draw said pin down when pressed, a spring under the vertical pin to press it up, substantially as described.

In testimony whereof I have hereunto set my hand this 12th day of June, A. D. 1899.

CHARLES D. ANDERSON.

In presence of—

HOWARD E. BARLOW,
BENJ. ARNOLD.