

(No Model.)

F. C. & R. S. PRINDLE.

VALVE GOVERNOR.

No. 389,484.

Patented Sept. 11, 1888.

Fig. 1.

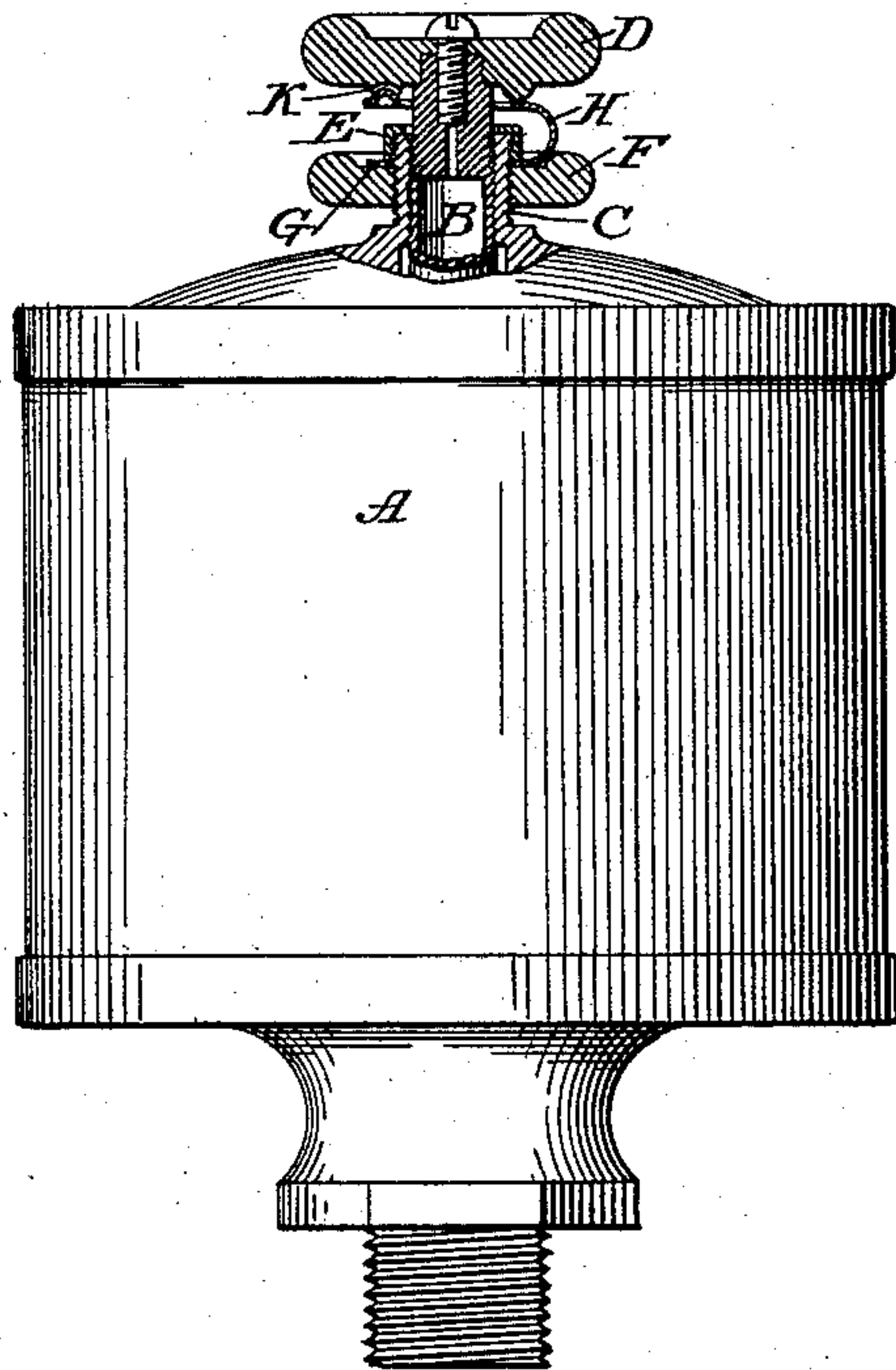


Fig. 2.

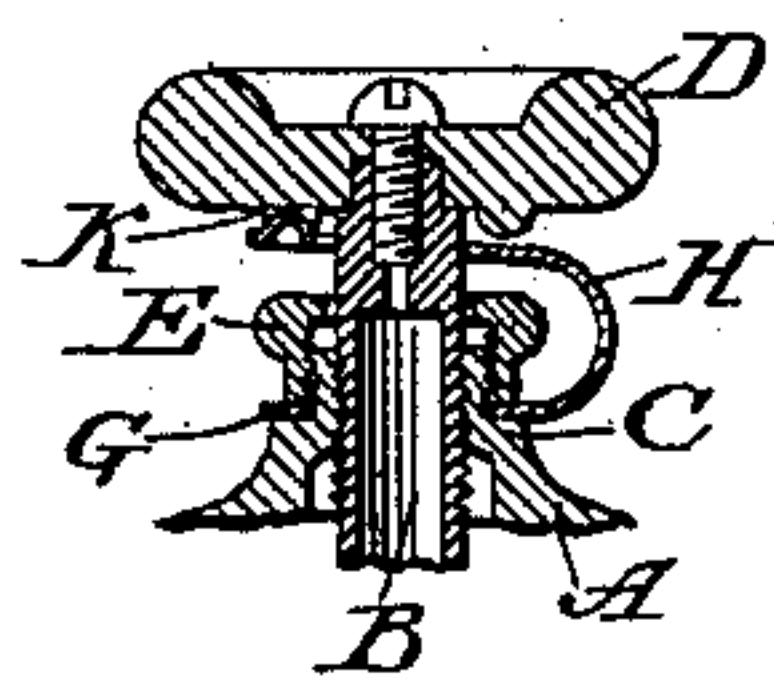
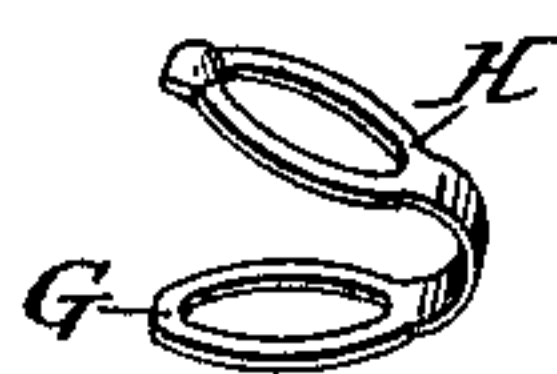


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

FRANKLIN C. PRINDLE AND ROSCOE S. PRINDLE, OF EAST ORANGE,
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VALVE-GOVERNOR.

SPECIFICATION forming part of Letters Patent No. 389,484, dated September 11, 1888.

Application filed July 23, 1888. Serial No. 280,853. (No model.)

To all whom it may concern:

Be it known that we, FRANKLIN C. PRINDLE and ROSCOE S. PRINDLE, both of East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Devices for Locking and Adjusting Valves in Oil-Cups, Lubricators, and for other Purposes; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is an elevation of an oil-cup with its upper end in vertical diametric section, illustrating the application of our invention to the stem of its valve. Fig. 2 is a similar section of the upper end of the cup detached, showing a modification in form of the improved locking device for the valve-stem; Fig. 3, a detached view in perspective of the locking-spring.

Our invention relates to an improvement in the class of adjustable locking keys or governors for longitudinally-moving valve-stems described in a pending application for Letters Patent, filed in the United States Patent Office by John S. Hall, September 15, 1886, Serial No. 213,584.

The object of our invention is to provide an adjustable governor or locking-key for the valve-stem, to prevent its accidental rotation and to indicate the extent of its movement, which will be more compact, neater, and more durable than any heretofore devised.

It consists in the combination, with the valve-stem, as hereinafter described and claimed, of an annular plate journaled upon the stem to be secured thereon by means of a lock-nut, and having a spring-arm doubled over upon the plate to be substantially parallel therewith and adapted to encircle the stem under its hand-wheel, so as to engage the under side of the latter and be covered and partly concealed thereby.

In the accompanying drawings, A represents an oil-cup of customary form, and B the stem of a valve working within the cup in the usual manner, which need not herein be described.

This valve-stem projects out through the top of the oil-cup and is threaded to work through an internally-threaded neck or collar, C, in the top of the cup. Its outer end is provided with a hand-wheel, D, by means whereof it may be readily rotated, the engagement of its threads with the collar C operating when it rotates to impart a longitudinal movement thereto, serving in the customary manner to open or close the valve upon its lower or inner end. The outer periphery of the collar C is also threaded, and an annular cap, E, which is centrally perforated to allow the stem of the upper end of the tube B to pass through it, is screwed down firmly upon the outer end of the collar, so that its lower end or edge forms an external encircling offset upon the collar. A lock-nut, F, is also fitted upon said collar to work up against the offset which the cap forms upon the collar.

A locking-key consisting of an annular plate, G, having a spring-arm, H, projecting therefrom and bent over to be nearly parallel with the face thereof, is interposed between the lock-nut F and the encircling offset formed by the lower edge of the cap E, so that the spring-arm shall project over the cap and under the hand-wheel D to engage a lug or notch, K, upon the under side of said wheel. This lug K operates, in connection with the spring-arm, as a stop and catch to determine the extent to which the valve-stem B shall be turned to give a proper feed-opening at its lower end and to retain it in position, the proper relative position of the arm and lug being first adjusted by loosening the lock-nut F, so that the disk G, carrying the arm, shall be free to turn with the lug and wheel, and when the proper opening for the valve is determined locking the nut F, so as to fix the disk and arm. The valve-stem may then be turned to close the valve and the valve be readily opened again to the proper extent without need of special care by simply turning the wheel D until the arm H engages with the lug K.

As a modification in the arrangement of this locking device the annular plate G, carrying the spring-arm H, is made to rest directly upon a shoulder on the collar, and the cap E is made to screw as a nut down upon the annular plate

to lock it, thereby dispensing with a separate lock-nut, as shown in Fig. 2.

We do not claim, broadly, the combination, with the valve-stem and an inclosing part 5 through which it works, of a locking-key loosely journaled on said inclosing part and adapted to engage the valve-stem and a locking-nut working on said inclosing part and serving to secure the locking-key in any desired 10 position relatively to the valve-stem. Our invention embodies an improvement upon a device of this character, and

We claim as our invention—

15 The combination, with a valve-stem, the hand-wheel secured thereto, the part through which the valve-stem works having an external offset encircling said part, and a lock-nut working on said inclosing part against said offset, of the annular plate or locking-key jour-

naled upon the valve-stem to be secured by the 20 lock-nut against said offset, said plate or key having a spring-arm formed integral with it and bent over parallel therewith to encircle the valve-stem and engage the under side of the hand-wheel, substantially in the manner 25 and for the purpose herein set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FRANKLIN C. PRINDLE.
R. S. PRINDLE.

Witnesses as to signature of F. C. Prindle:

J. L. HINES,
J. N. SEBRELL.

Witnesses as to signature of R. S. Prindle:

FRED MEYERS, Jr.,
SAMUEL P. BELL.