

(No Model.)

E. M. E. E. THOREY.

COCK.

No. 261,068.

Patented July 11, 1882

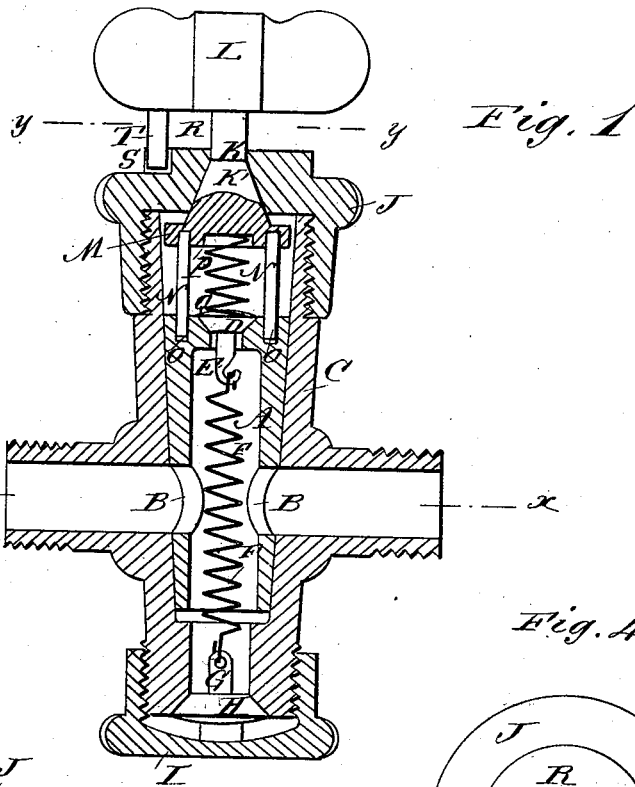


Fig. 1

Fig. 3

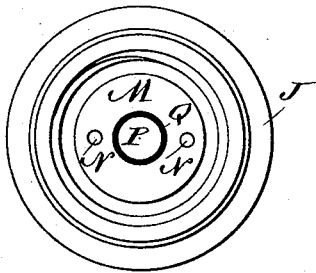


Fig. 4

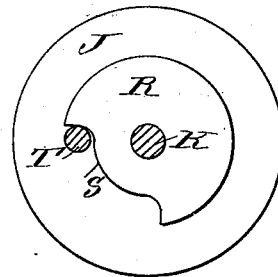


Fig. 2

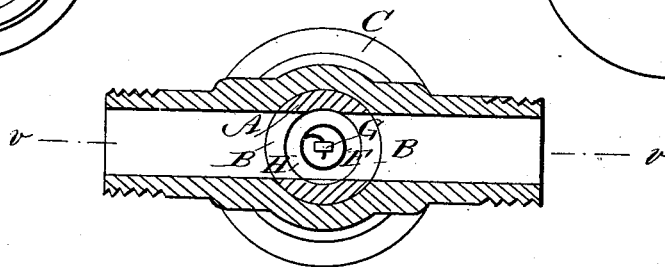
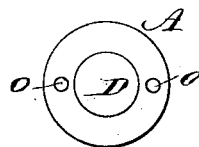


Fig. 5



WITNESSES:

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# UNITED STATES PATENT OFFICE.

EMILE M. E. E. THOREY, OF UNION HILL, NEW JERSEY.

## COCK.

SPECIFICATION forming part of Letters Patent No. 261,068, dated July 11, 1882.

Application filed February 28, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, EMILE M. E. E. THOREY, of Union Hill, in the county of Hudson and State of New Jersey, have invented a new and Improved Cock, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved cock, in which the plug fits very closely in the socket.

10 The invention consists in a cock provided with springs for holding the plug closely in the socket, for preventing gas or liquid from escaping between the sides of the plug and the socket.

15 The invention further consists in turning heads in the top of the plug and in the bottom of the socket, to which heads the tension-spring of the plug is attached, and upon one of which heads the pressure-spring rests.

20 The invention also consists in a disk contained in a cap on the top of the socket, which disk is provided with a handle and with studs passing into the upper end of the plug, whereby the plug will be turned when this disk is  
25 turned by means of its handle, all as will be fully described hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate  
30 corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of my improved cock on the line *vv*, Fig. 2, showing it opened. Fig. 2 is a sectional plan view of the same on the line *xx*, Fig. 1. Fig.  
35 3 is a plan view of the under side of the screw-cap of the cock. Fig. 4 is a sectional plan view of the cap of the cock on the line *yy*, Fig. 1. Fig. 5 is a plan view of the upper end of the plug.

40 The plug A, which is tapered and made hollow, and is provided with the usual opposite apertures, B, fits into the tapering socket C.

A head, D, provided with a downwardly-projecting stud or hook, E, rests loosely to turn  
45 in a recess in the top of the plug A, the hook E projecting down through the top of the plug.

A spiral spring, F, is attached at its upper end to the hook or stud E, and the lower end of this spring is attached to an upwardly-pro-  
50 jecting stud or hook, G, attached to the inner surface of a head, H, fitting loosely to turn

in a recess in the bottom of the socket or casing C.

A cap, I, is secured over the lower end of the socket C.

A screw-cap, J, is screwed on the upper end of the socket C, and through the top of this cap J a spindle, K, passes, provided at its upper end with a winged handle, L, or other suitable handle, and at its lower end, which is within  
60 the cap J, with a disk, M, provided with two or more downwardly-projecting studs, N, fitting in corresponding apertures, O, in the top of the plug A.

The disk M is provided in the middle of its lower surface with a recess, P, for receiving  
65 the upper end of a spiral spring, Q, the lower end of which rests on the head D in the top of the plug A.

A circular projection, R, on the top of the cap J, is provided in its edge with a quadrant recess, S, into which a stud, T, passes, projecting downward from the handle L, which stud T strikes against the ends of this recess S, and thus limits the movements of the handle L and  
75 the plug A to a quarter-turn.

If desired, the top of the cap J may be provided with a quadrant-groove in place of the quadrant recess S, or with two projections separated the distance of a quarter-circle. The  
80 spindle K is provided at its lower end with a conical enlargement, K', which fits into a conical recess in the lower surface of the cap J, and the spring Q presses the conical enlargement K' into the conical recess in the cap J, and thus  
85 prevents an escape of gas or liquid through the space between the lower part of the spindle and the aperture in the cap.

The operation is as follows: By turning the handle L the spindle K and the disk M will  
90 be turned, and as the studs N pass into the apertures O in the top of the plug A the plug will be turned also. The spring F will not be turned or twisted, as the head D, to which the spring F is attached, can turn in the top of the  
95 plug A. The plug A is drawn downward into the socket C by the spring F, and is pressed downward by the spring Q. The springs F and Q hold the heads D and H closely in the upper end of the plug and the lower end of the  
100 socket C, and prevent the escape of gas or liquid between the heads and the sides of the

recesses into which they fit. If, by accident, any liquid or gas should escape at these heads, it is prevented from leaving the socket C by the caps I and J.

5 My improved cock can be used for gases or liquids. Its special advantage is that the plug fits so closely in its socket as to make an escape of gas or liquid almost impossible and without interfering with the easy working of the cock.

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

1. In a cock, the combination, with the socket C and the plug A, of the spring F and the turning heads D and H, to which the ends of the spring are attached, substantially as herein shown and described, and for the purpose set forth.

2. In a cock, the combination, with the socket C and the plug A, of the cap J and the disk M, provided with a handle, L, and studs N, passing into the top of the plug, substantially as herein shown and described, and for the purpose set forth.

3. In a cock, the combination, with the socket C and the plug A, of the cap J, the disk M, provided with a handle, L, and studs N, passing into the top of the plug, and of the spring Q, between the plug and the disk M, substantially as herein shown and described, and for the purpose set forth.

4. In a cock, the combination, with the socket C and plug A, of the disk M, provided with studs N, passing into the plug A, and of the springs F and Q, substantially as herein shown and described, and for the purpose set forth.

5. In a cock, the combination, with the socket C and plug A, of the disk M, provided with a handle, L, and studs N, passing into the plug, of the springs F and Q, and the heads D and H, substantially as herein shown and described, and for the purpose set forth.

EMILE M. E. E. THOREY.

Witnesses:

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