(No Model.)

J. C. DRUCKLIEB & W. FELS.

Gas Valve.

No. 238,768. Patented March 15, 1881.

Fig. 1.

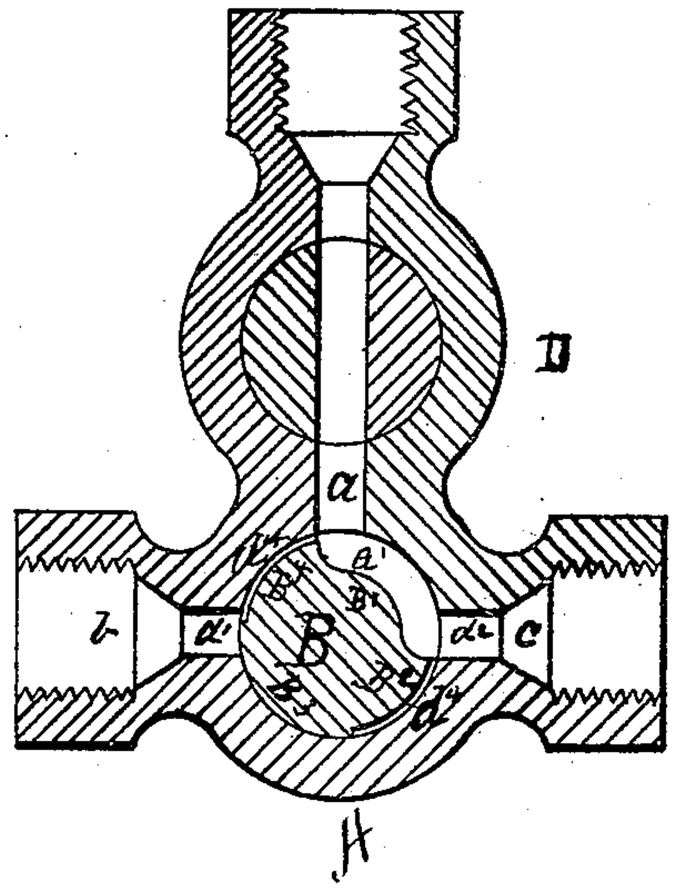


Fig. 2.

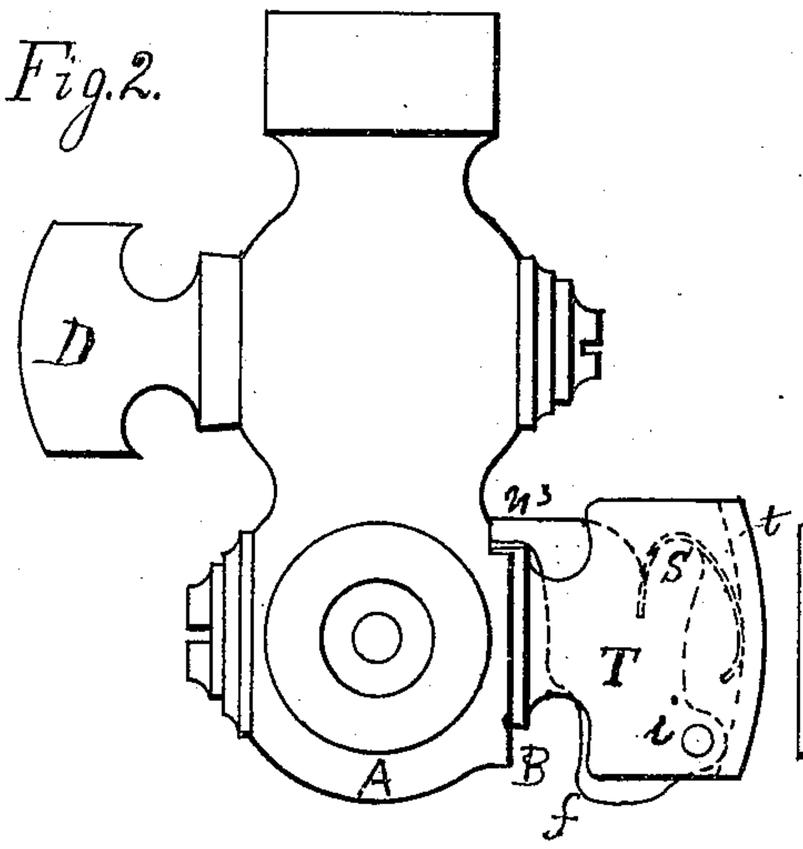
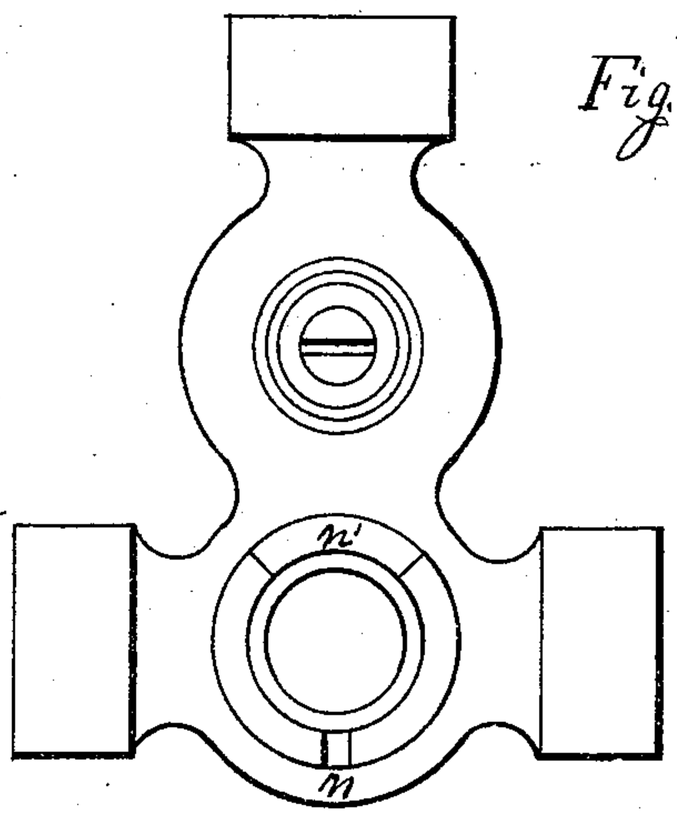


Fig. 3.



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UNITED STATES PATENT OFFICE.

JULIUS C. DRUCKLIEB AND WILLIAM FELS, OF PATERSON, NEW JERSEY.

GAS-VALVE.

SPECIFICATION forming part of Letters Patent No. 238,768, dated March 15, 1881.

Application filed December 7, 1880. (No model.)

To all whom it may concern:

Be it known that we, JULIUS C. DRUCKLIEB and WILLIAM FELS, of the city of Paterson, county of Passaic, and State of New Jersey, have invented a new and useful Improvement in Gas-Valves, of which the following is a specification, reference being had to the accompanying drawings.

The object of our invention is the production of a valve that will save gas and prevent accidents from fire in factories or workshops where the operatives need light at different places without using more than one light at a time. With our newly-invented valve the operative, by turning on the light in front of a machine, lowers by the same action the light in the rear of the machine, being compelled to save gas where it is not needed.

Figure 1 is a sectional view of our newly-invented valve, showing the valve-seat A and its outlets *b c* and inlet *a*. B shows the construction of the valve-key. In the center of the conic part of the valve-key its circumference is divided into four equal parts—marked B' B^2 B^3 B^4. A channel, *a'*, large enough to conduct the full volume of gas introduced through the inlet *a*, is cut out at B'. A fine groove or channel, d^4, is cut into B^2 B^4, and at B^3 the valve-key is left solid. D is an ordinary valve, (represented as forming a solid piece with A,) and serves for regulating the pressure of the gas.

Fig. 2 is a side view of the valve, showing the construction of the flat part or thumb-piece of the valve-key B. The valve-key B, in the position shown in Fig. 1, is supplying the outlet *c* with a full flow of gas, while the flame at *b* is kept burning very low by the current of gas escaping through *d'*. By giving the valve-key B a quarter-turn to the left the main current would be conducted through outlet *b*, while the flame at *c* would receive a small current or flow through d^2. The valve-key B, by receiving another turn to the left, the solid part of B^3 would cut off the supply of gas at *a* and extinguish both flames.

Fig. 3 is an end view of our newly-invented valve at right angles to Fig. 2, showing that part of the valve-seat *n'* cut out for limiting the valve-key to a quarter of a turn, showing also a notch, *n*, cut in the valve-seat A. The flat part of the valve-key B, as represented in Fig. 2, is provided with a slot, *t*, for the reception of a tumbler, T, the tumbler being provided with a spring, *s*, and is pivoted at *i*. A notch, *n'*, is cut in the valve-seat A at its wider part, which allows the nose n^3 of tumbler T to move clear one-quarter of a turn of the key B. A slight pressure on the projecting part *f* of the tumbler T will lift its nose n^3 above the shoulders formed by cutting the notch *n'* into the valve-seat A for limiting the motions of the valve-key to a quarter of a turn, and allow the key B to be so turned as to shut off the flow of gas and permit the nose n^3 of tumbler T to enter the notch *n*, which locks the key B at that point where the flow of gas is cut off. The key may be unlocked by simply pressing on the tumbler at *f*, which will lift the nose n^3 from the notch *n* and allow the key B to be turned as desired.

Having described our newly-invented valve and its mode of operation, what we claim, and desire to secure by Letters Patent, is—

1. The combination of the valve-seat A with the valve-key B, constructed with the described grooves or channels at B', B^2, and B^4, and the solid part at B^3, the tumbler T, projection *f*, pivot *i*, spring *s*, slot *t*, and nose n^3, substantially as described.

2. The combination, with the valve-key B, of the valve-seat A, provided with notch *n'* and notch *n*, outlets *b c d' d²*, all arranged as shown and set forth.

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