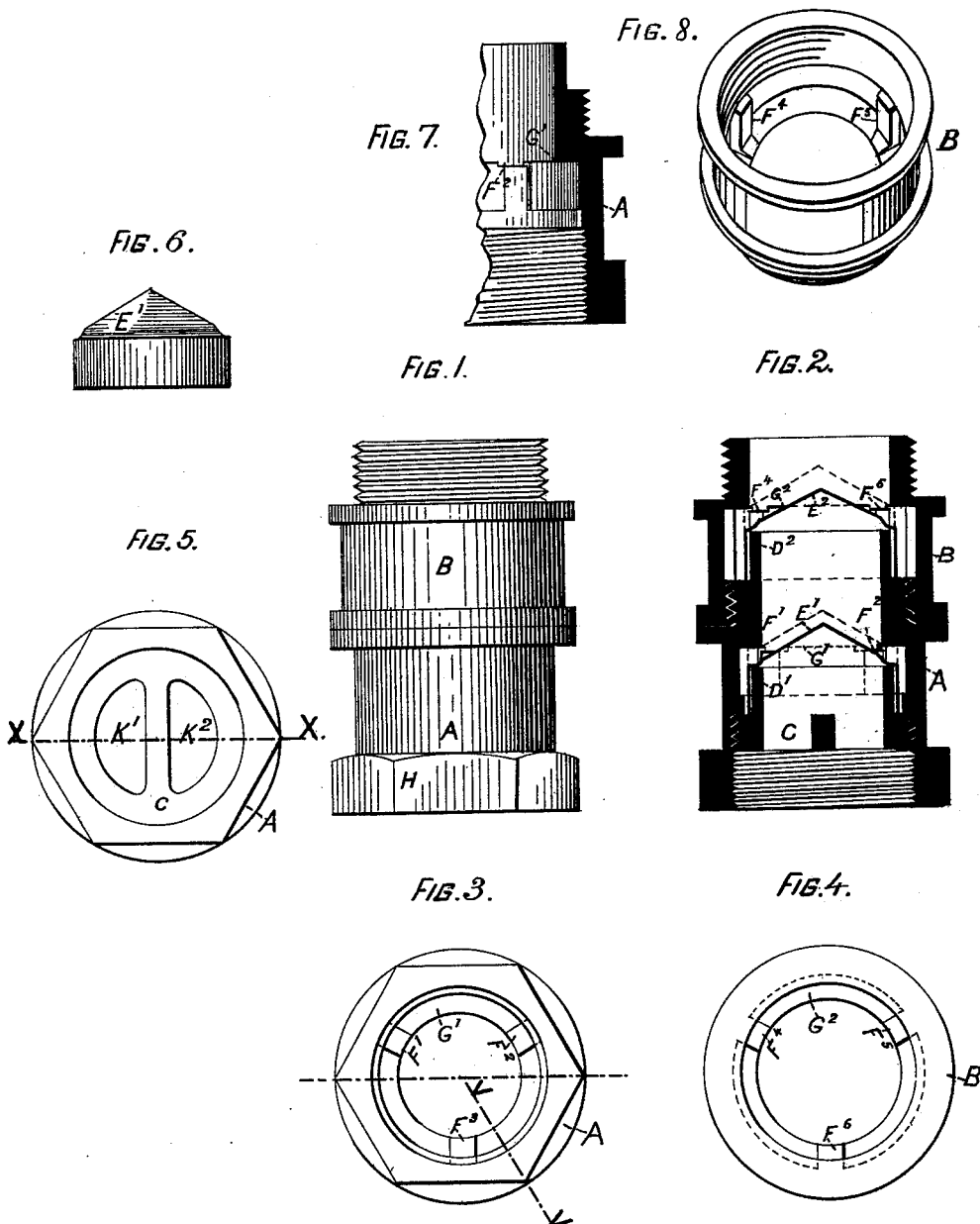


P. KELLER.
Double Self-Acting Gas-Check Valve.
No. 218,677. Patented Aug. 19, 1879.



WITNESSES
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UNITED STATES PATENT OFFICE

PETER KELLER, OF CINCINNATI, OHIO.

IMPROVEMENT IN DOUBLE SELF-ACTING GAS-CHECK VALVES.

Specification forming part of Letters Patent No. **218,677**, dated August 19, 1879; application filed April 28, 1879.

To all whom it may concern:

Be it known that I, PETER KELLER, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Double Self-Acting Gas-Check Valves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 represents an elevation of my gas-regulator. Fig. 2 represents a vertical section through X X, Fig. 5. Fig. 3 represents the lower part of the gas-regulator with the screw-cap removed, showing the offset and the projections thereon. Fig. 4 represents an inverted view of the upper part of the gas-regulator, showing the offset and the projections thereon. Fig. 5 represents an inverted view of the lower part, showing the screw-cap. Fig. 6 represents an elevation of one of the conical caps. Fig. 7 represents a part vertical section of the lower part of the gas-regulator, taken through V V, Fig. 3. Fig. 8 represents a view in perspective, the regulator being inverted, of the interior of one section of the gas-check casing, showing the construction and arrangements of one set of blocks for arresting the upward motion of one of the thimble-caps, yet allowing the escape of gas upward around the same.

This invention relates to certain improvements on that class of gas-regulators for which a patent was granted to me bearing the number 137,454.

My improved gas-check, hereinafter described, is constructed in two parts, which screw together, making an air-tight joint. The lower part, A, is provided with an internal annular flange or offset, G¹, having at intervals downwardly-extending lugs or blocks F¹ F² F³. Said part A is also screw-threaded internally to receive an externally screw-threaded thimble or nipple, D¹. This thimble is open at the top, but receives a conical cap, E¹, which is free to rise and fall over said nipple. The gas enters said thimble D¹ from below, and in the effort to pass out raises said cap E¹ until it comes in

contact with said offset or flange G¹, which prevents said cap from ascending too far.

Blocks or lugs F¹ F² F³, against which the cap is pressed, leave space between them for the gas to pass into the upper part or section, B, of my double check. This upper part, B, has a thimble or nipple, D², corresponding to thimble D¹, a cap, E², corresponding to cap E¹, a flange or offset, G², corresponding to offset G¹, and lugs or blocks F⁴ F⁵ F⁶, corresponding to F¹ F² F³.

The action of the gas and of the several devices named is the same in the upper section, B, of the check as in the lower section, A.

The bottom, C, of lower thimble, D¹, is provided with openings K¹ K², for the admission of gas.

The raised position of the caps is shown in dotted lines on the drawings.

The conical tops of the caps E¹ E² insure their rising perpendicularly.

Whenever more gas is admitted to the space above the check than the burners can consume, the downward pressure of this superfluous supply of gas will force down the caps E¹ E², and thus cut off the flow of gas until the surplus is sufficiently reduced by the burners.

I am aware that it is not new to combine a sliding thimble with an outer casing having tapering plates and alternate recesses on its inside for the same general purpose as my invention, and I do not claim the above-described construction; but

What I do claim, and desire to secure by Letters Patent, is—

The combination, with thimble D¹, having conical cap E¹, of tube-section A, provided with an annular offset, G¹, having blocks F¹ F² F³, arranged substantially as set forth, so that their flat downward ends will engage the flattened peripheral part of cap E¹, leaving space for the upward passage of gas between said blocks.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of April, 1879.

PETER KELLER.

Witnesses:

W. A. LATTER,
C. W. HURDLE.